## **U-I INTRODUCTION TO CYBER LAW**

## What is cyber crime?

- Cybercrime is unlawful activity that involves the use of computers and related technologies
- Cybercrime is profession for easy money
- Cyber crime is nothing but crime done by computers or digital devices
  - Where computer is the target
  - Where the computer is the tool of crime
  - Where computer is incidental to crime

## Who are Cyber criminals (Profile of cyber criminals)?

- Disgruntled employees (unsatisfied employees)
- Teenagers
- Political activists
- Professional hackers
- Business rivals
- Ex-boyfriends
- Divorced husbands

## Victims of Cyber Crime?

- Gullible (easily gulled or cheated) peoples
- Greedy peoples
- Unskilled and in experienced peoples
- Unlucky peoples

### **Reasons for Cyber Crime ?**

Hart in his work "The Concept of Law" has said 'human beings are vulnerable so rule of law is required to protect them'. Applying this to the cyberspace we may say that computers are vulnerable so rule of law is required to protect and safeguard them against cyber crime. The reasons for the vulnerability of computers may be said to be:

1. Capacity to store data in comparatively small space-

The computer has unique characteristic of storing data in a very small space. This affords to remove or derive information either through physical or virtual medium makes it much more easier.

2. Easy to access-

The problem encountered in guarding a computer system from unauthorised access is that there is every possibility of breach not due to human error but due to the complex technology. By secretly implanted logic bomb, key loggers that can steal access codes, advanced voice recorders; retina imagers etc. that can fool biometric systems and bypass firewalls can be utilized to get past many a security system.

3. Complex-

The computers work on operating systems and these operating systems in turn are composed of millions of codes. Human mind is fallible and it is not possible that there might not be a lapse at any stage. The cyber criminals take advantage of these lacunas and penetrate into the computer system.

4. Negligence-

Negligence is very closely connected with human conduct. It is therefore very probable that while protecting the computer system there might be any negligence, which in turn provides a cyber criminal to gain access and control over the computer system.

5. Loss of evidence-

Loss of evidence is a very common & obvious problem as all the data are routinely destroyed. Further collection of data outside the territorial extent also paralyses this system of crime investigation.

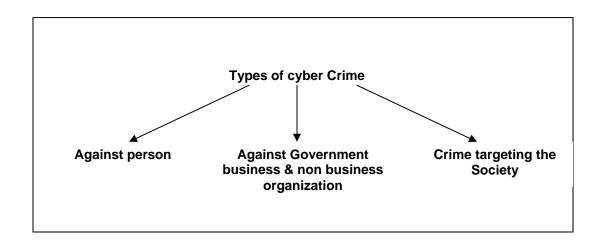
#### Objective: Why to learn cyber crimes & laws?

- Now a day's everyone is using computers like white-collar peoples, criminals, terrorist organizations from teenagers to adults
- Conventional crimes like forgery, extortion, kidnapping are being carried with the help of computers
- So its very important to learn the details of cyber crimes its prevention, detection and under which law it comes so that we can report against the crime

## Computer crimes are vulnerable?

- Anonymity (anonymous nature)
- Storage capacity
- Weakness in operating system
- Lack of awareness of user

## Types of cyber crime:



## **Examples of cyber Crime**

- Financial claims: cheating, credit card fraud, money laundering etc
- Cyber pornography: include porn website and material available on web
- Sale of illegal articles: Narcotics, weapons
- Online gambling:
- Intellectual property crime: includes software piracy
- E-mail spoofing: diverting spoofed mails
- Forgery: Counterfeit currency, postage and revenue stamps
- Cyber defamation: Publishing defamatory matter about someone else
- Cyber Stalking: To follow the movement of person on the internet and divert the threatening messages
- **Cyber Squatting:** To reserve someone else domain name in advance from domain registrar and make it available for sale
- Theft of password
- Unauthorized network access
- Internet fraud
- Web Jacking
- Salami attack
- Nigerian attack

#### Some of above mentioned offences may discussed in brief as follows:

#### 1. Harassment via e-mails-

Harassment through e-mails is not a new concept. It is very similar to harassing through letters. Recentlyl had received a mail from a <u>lady wherein she complained</u> about the same. Her former boy friend was sending her mails constantly sometimes emotionally blackmailing her and also threatening her. This is a very common type of harassment via e-mails.

## 2. Cyber-stalking-

The Oxford dictionary defines stalking as "pursuing stealthily". Cyber stalking involves following a person's movements across the Internet by posting messages (sometimes threatening) on the bulletin boards frequented by the victim, entering the chat-rooms frequented by the victim, constantly bombarding the victim with emails etc.

# 3. Dissemination of obscene material/ Indecent exposure/ Pornography (basically child pornography) / Polluting through indecent exposure-

Pornography on the net may take various forms. It may include the hosting of web site containing these prohibited materials. Use of computers for producing these obscene materials. Downloading through the Internet, obscene materials. These obscene matters may cause harm to the mind of the adolescent and tend to deprave or corrupt their mind. Two known cases of pornography are the <u>Delhi Bal Bharati case</u> and the <u>Bombay case</u> wherein two Swiss couple used to force the slum children for obscene photographs. The Mumbai police later arrested them.

## 4. Defamation

It is an act of imputing any person with intent to lower the person in the estimation of the rightthinking members of society generally or to cause him to be shunned or avoided or to expose him to hatred, contempt or ridicule. Cyber defamation is not different from conventional defamation except the involvement of a virtual medium. E.g. the mail account of <u>Rohit</u> was hacked and some mails were sent from his account to some of his batch mates regarding his affair with a girl with intent to defame him.

## 4. Unauthorized control/access over computer system-

This activity is commonly referred to as hacking. The Indian law has however given a different connotation to the term hacking, so we will not use the term "unauthorized access" interchangeably with the term "hacking" to prevent confusion as the term used in the Act of 2000 is much wider than hacking.

## 5. E mail spoofing-

A spoofed e-mail may be said to be one, which misrepresents its origin. It shows it's origin to be different from which actually it originates. Recently spoofed mails were sent on the name of Mr. <u>Na.Vijayashankar</u> (naavi.org), which contained virus.

<u>Rajesh Manyar</u>, a graduate student at Purdue University in Indiana, was arrested for threatening to detonate a nuclear device in the college campus. The alleged e- mail was sent from the

account of another student to the vice president for student services. However the mail was traced to be sent from the account of Rajesh Manyar

## 6. Computer vandalism-

Vandalism means deliberately destroying or damaging property of another. Thus computer vandalism may include within its purview any kind of physical harm done to the computer of any person. These acts may take the form of the theft of a computer, some part of a computer or a peripheral attached to the computer or by physically damaging a computer or its peripherals.

## 7. Transmitting virus/worms-

## 8. Intellectual Property crimes / Distribution of pirated software-

Intellectual property consists of a bundle of rights. Any unlawful act by which the owner is deprived completely or partially of his rights is an offence. The common form of IPR violation may be said to be software piracy, opyright infringement, trademark and service mark violation, theft of computer source code, etc.

The <u>Hyderabad Court</u> has in a land mark judgement has convicted three people and sentenced them to six months imprisonment and fine of 50,000 each for unauthorized copying and sell of pirated software

## 9. Cyber terrorism against the government organization

At this juncture a necessity may be felt that what is the need to distinguish between cyber terrorism and cyber crime. Both are criminal acts. However there is a compelling need to distinguish between both these crimes. A cyber crime is generally a domestic issue, which may have international consequences, however cyber terrorism is a global concern, which has domestic as well as international consequences. The common form of these terrorist attacks on the Internet is by distributed denial of service attacks, hate websites and hate emails, attacks on sensitive computer networks, etc. Technology savvy terrorists are using 512-bit encryption, which is next to impossible to decrypt. The recent example may be cited of – <u>Osama Bin Laden</u>, the <u>LTTE</u>, attack on <u>America's army deployment system</u> during Iraq war.

Cyber terrorism may be defined to be "the premeditated use of disruptive activities, or the threat thereof, in cyber space, with the intention to further social, ideological, religious, political or similar objectives, or to intimidate any person in furtherance of such objectives"

Another definition may be attempted to cover within its ambit every act of cyber terrorism.

A terrorist means a person who indulges in wanton killing of persons or in violence or in disruption of services or means of communications essential to the community or in damaging property with the view to

- (1) putting the public or any section of the public in fear; or
- (2) affecting adversely the harmony between different religious, racial, language or regional groups or castes or communities; or
- (3) coercing or overawing the government established by law; or
- (4) Endangering the sovereignty and integrity of the nation and a cyber terrorist is the person who uses the computer system as a means or ends to achieve the above objectives. Every act done in pursuance thereof is an act of cyber terrorism.

## 10. Trafficking

Trafficking may assume different forms. It may be trafficking in drugs, human beings, arms weapons etc. These forms of trafficking are going unchecked because they are carried on under pseudonyms. A racket was busted in Chennai where drugs were being sold under the pseudonym of honey.

## 11. Fraud & Cheating

Online fraud and cheating is one of the most lucrative businesses that are growing today in the cyber space. It may assume different forms. Some of the cases of online fraud and cheating that have come to light are those pertaining to credit card crimes, contractual crimes, offering jobs, etc.

Recently the <u>Court of Metropolitan Magistrate Delhi</u> found guilty a 24-year-old engineer working in a call centre, of fraudulently gaining the details of Campa's credit card and bought a television and a cordless phone from Sony website. Metropolitan magistrate Gulshan Kumar convicted Azim for cheating under IPC, but did not send him to jail. Instead, Azim was asked to furnish a personal bond of Rs 20,000, and was released on a year's probation.

#### Preventive steps followed by Teenagers /Childs

- Do not disclose your identity in public chat
- Do not upload your pictures, cell no address and other details
- Be cautious while giving your details on community sites like orkut

#### Preventive steps followed by Parents:

- Use bundled software tool in order to block popup and spy wares
- Make use of filtering and monitoring tool to track the details of children and student in order to keep them away from being the victim of cyber crime

#### Preventive steps for Organization:

- To identify the security holes
- Use filtering and management tool
- Deploy firewall and make use of latest patches of OS and updated AV

## Internet guidelines for students:

Few tips for net usage by students-

- The Internet is the global storehouse for information. It is like having the biggest library in the World at your fingertip
- Use the net to increase your knowledge, to do class work better
- Visit interesting places sitting at your computer visit the Taj or the Smithsonian Institution or the Louvre in Paris all without stirring from your chair.
- This is what the net is all about-an explosion of information
- Use the net to keep in touch with children from other parts of the Country or other Countries-make new pen friends; collect information. Many on-line service providers host chat rooms especially for children, monitored continuously for safety.
- The net is a global community without any barriers, distances, boundaries.
- Be careful about talking to "strangers" on a computer network.
- Respect privacy on the net. You may have known the password of some other user- your friend/schoolmate. But do not use it to read their mail or send mail from their ID. Remember somebody else can also do this to you.
- Use the net to find information about schools and colleges-events or courses they may be offering. Many of them offer you a virtual guided tour of their facilities. Take advantage of this. This will help you take a decision when planning your future
- Be careful about what you download from the net. Use a virus scan before the download as many programs may contain virus-this has the potential to destroy your system.

## Don'ts:

- Do not give your password to anybody. Somebody who is malicious can cause great harm to you and your reputation. It is like leaving your house open for a stranger and walking away.
- When talking to somebody new on the net, do not give away personal information-like numbers of the credit card used by your parents, your home addresses/ phone numbers and such other personal information.
- If you feel uncomfortable or threatened when somebody on the net feeds you an improper or indecent message inform your parents or elders.
- Do not break into somebody else's computer and worse still change things; you are probably destroying a lifetime of hard work by somebody. You may be intelligent but use your intelligence for better things. Somebody else can be as ruthless and as intelligent to break into your system and destroy your creations as well.
- Do not copy a program that is copyrighted on the net. It is illegal. You are actually stealing somebody else's hard work. There is a lot of illegally available material on the net. Do not use it yourself.

## Suggestions for better security

- Use strong passwords. Choose passwords that are difficult or impossible to guess. Give different passwords to all other accounts.
- Make regular back-up of critical data. Back-up must be made atleast once in each day. Larger organizations should perform a full back-up weekly and incremental back-up every day. Atleast once in a month the back-up media should be verified.
- Use virus protection software. That means three things: having it on your computer in the first place, checking daily for new virus signature updates, and then actually scanning all the files on your computer periodically.
- Use a firewall as a gatekeeper between your computer and the Internet. Firewalls are usually software products. They are essential for those who keep their computers online through the popular DSL and cable modem connections but they are also valuable for those who still dial in.
- Do not keep computers online when not in use. Either shut them off or physically disconnect them from Internet connection.
- Do not open e-mail attachments from strangers, regardless of how enticing the subject line or attachment may be. Be suspicious of any unexpected e-mail attachment from someone you do know because it may have been sent without that person's knowledge from an infected machine.

## **General Information for better security**

- Regularly download security patches from your software vendors.
- Don't delete harmful communications (emails, chat logs, posts etc). These may help provide vital information about the identity of the person behind these.
- Try not to panic.
- If you feel any immediate physical danger of bodily harm, call your local police.
- Avoid getting into huge arguments online during chat or discussions with other users.
- Remember that all other internet users are strangers. You do not know who you are chatting with. So be careful and polite.
- Be extremely careful about how you share personal information about yourself online.
- Choose your chatting nickname carefully so as not to offend others.
- Do not share personal information in public spaces anywhere online, do not give it to strangers, including in e-mail or chat rooms. Do not use your real name or nickname as your screen name or user ID. Pick a name that is gender and age neutral. And do not post personal information as part of any user profile.
- Be extremely cautious about meeting online acquaintances in person. If you choose to meet, do so in a public place and take along a friend.
- Make sure that your ISP and Internet Relay Chart (IRC) network have an acceptable use policy that prohibits cyber-stalking. And if your network fails to respond to your complaints, consider switching to a provider that is more responsive to user complaints.
- If a situation online becomes hostile, log off or surf elsewhere. If a situation places you in fear, contact a local law enforcement agency.
- Save all communications for evidence. Do not edit or alter them in any way. Also, keep a record of your contacts with Internet System Administrators or Law Enforcement Officials.

#### Popular Cyber cases of India:

#### Baazee.com (Example of cyber pornography)

- On 17th December 2004, Delhi Police arrested Avinash Bajaj, CEO of the popular Internet auction website Baazee.com, on charges of allowing the sale of VCDs showing two Delhi school students in an explicit sexual act
- Bajaj was arrested under section 67 of the IT Act 2000 which prohibits transmission and sale of obscene data electronically.
- If punished under the act, the culprit can be imprisoned. The imprisonment term may extend up to five years and the fine imposed can be up to Rs.1 lakh. ...
- THE Avnish Bajaj episode hogged media attention, when the bazee.com chief executive officer (CEO) was released by the Delhi High Court after a lower court had sent him to Tihar Jail for carrying an objectionable video clip on his web site.
- Bajaj cooled his heels for four days in Tihar, and his arrest led to vociferous protests from industry, with NASSCOM, which articulates the Information Technology (IT) industry's problems, taking the lead.
- There are at least three known actors involved here.
- The first is the 17-year-old Delhi schoolboy who, sometime in July 2004, captured his own indiscretion with a female classmate on his mobile phone camera. He then transmitted the images to two friends on their mobile phones, from whom a three-minute clip got circulated among 50 students.
- The next significant player is an Indian Institute of Technology (IIT) Kharagpur student Ravi Raj, who picked up the video clip from the IIT's Local Area Network and then posted it on bazee.com, said to be India's largest Internet auction site.
- He did this with the help of an electronics firm in Kharagpur. Eight people are reported to have bought the CD from the site. There is also a report that the CD was available in the Delhi market for at least a few days
- The third player is Avnish Bajaj, who was arrested on December 17 under the Information Technology Act case that had been registered by the Delhi Police.
- Ravi Raj was arrested a few days earlier, on the charge of circulating pornographic material for monetary gain.
- The schoolboy was granted bail by the Juvenile Justice Board on December 22, after he was taken into police charge and detained at an Observation Home for two days.
- THE law on the subject is very clear.
- The sections slapped on the three players are Section 292 (sale, distribution, public exhibition, etc., of an obscene object) and Section 294 (obscene acts, songs, etc., in a public place) of the (IPC), and Section 67 (publishing information which is obscene in electronic form) of the Information Technology Act 2000.
- In addition, the schoolboy faces a charge under Section 201 of the IPC (destruction of evidence), for there is apprehension that he had destroyed the mobile phone that he used in the episode.

## Sushmitasen.com (Example of cyber squatting)

- Famous actress suhmitasen doesn't own domain sushmitasen.com as its reserved by someone else
- Case is going on
- Famous cyber squatter of India: Akash Arora owns yahooindia.com

Famous Indian Hacker: Ankit phadia - who is helping government of India

## Gujrat Ambuja Cement: (Example of Threatening and Extortion)

- Gujrat ambuja cements executive officer **Pranab Mitra** arrested for doing extortion and sending threatening mails to **Mr. V.R. Ninawe** of Abu dhabi
- Mr Mitra has created fake e-mail ID and pretended himself as Rita Basu
- He i.e. Rita Basu came in contact with Mr. Ninawe of Abu Dhabi and their online affair or relation continued up to year
- After year Rita Basu i.e Mr. Mitra has diverted threatening mail to Mr. Ninawe by saying
  if you are going to close our relation I'm going to commit suicide and along with this mail
  he has diverted one more fake e-mail ID of Ruchira Sen Gupta by saying that details of
  our relation is known to my friend Ruchira Sen Gupta
- After week Ninawe done contact to Ruchira sen gupta where he came to know that Rita Basu has commited the suicide and police personnel here are enquiring about Mr. Ninawe
- Mr. Ninawe frightened and diverted Rs. 4 Lacks to account provided by ruchira sen gupta for hiring the lawyer
- Later on Mr. Mitra has created fake e-mail ID's of police personnel and court official and diverted threatening mails to Mr. Ninawe based on which Mr. Ninawe came to India and case was exposed

## Sonia Gandhi (Congress President) (Example of Threatening)

- Mrs. Sonia Gandhi received threatening e-mail from <u>Missionrevenge84@khalsa.com</u> and <u>missionrevenge84@hotmail.com</u> she done FIR No:76/02 PS
- Accused person was arrested who has lost his parents during 1984 riots

## What is law?

Law is a code that regulates the behaviour of members of a society. It affects almost everything we do - buying a house, getting a job, making a will or getting divorced, for example. Even something as simple as buying a bar of chocolate is covered by numerous laws:

- the law of contract;
- company law;
- sale of goods, food and drugs legislation;
- occupiers' liability;
- trades' descriptions law!

So as you can imagine, lawyers have an important and diverse role in society.

- the collection of rules imposed by authority; "civilization presupposes respect for the law"; "the great problem for jurisprudence to allow ...
- legal document setting forth rules governing a particular kind of activity; "there is a law against kidnapping"
- a rule or body of rules of conduct inherent in human nature and essential to or binding upon human society
- a generalization that describes recurring facts or events in nature; "the laws of thermodynamics"
- jurisprudence: the branch of philosophy concerned with the law and the principles that lead courts to make the decisions they do
- the learned profession that is mastered by graduate study in a law school and that is responsible for the judicial system; "he studied law at Yale"
- police: the force of policemen and officers; "the law came looking for him"

## Cyber Law is the law governing computers and the Internet.

In today's highly digitalized world, almost everyone is affected by cyber law. Let us take a few examples:

Almost all transactions in **shares are in demat** form.

Almost **all companies** extensively depend upon their computer networks and keep their **valuable data** in electronic form.

Government forms including income tax returns, company law forms etc are now filled in electronic form.

Consumers are increasingly using **credit cards** for shopping.

Most people are using email, cell phones and SMS messages for communication.

Even in **"non-cyber crime" cases**, important evidence is found in computers / cell phones e.g. in cases of divorce, murder, kidnapping, tax evasion, organized crime, terrorist operations, counterfeit currency etc.

**Cyber crime cases** such as online banking frauds, online share trading fraud, source code theft, credit card fraud, tax evasion, virus attacks, cyber sabotage, phishing attacks, email hijacking, denial of service, hacking, pornography etc are becoming common. Digital signatures and e-contracts are fast replacing conventional methods of transacting business.

## IT ACT-2000

- First law of India i.e. applicable throughout the country including J & K
- IT act 2000 bring us among top 10 countries who is having updated cyber laws
- Major sections of IT ACT-2000 that deals with crime are
  - o Section 43: Penalty for damaging & use of computers without permission
  - Section 65: Tampering source code
  - o Section 66: Hacking
  - o Section 67: Publishing

## **Evolution of Computers:**

## First Generation:

- Von Neumann Machine
- Stored program computers
- Used Vaccume tubes –1945-1952

## Second Generation: Transistor age 1958 – 1964

## Third Generation:

- IC (Integrated Circuit) Age 1965 onward
- IBM-360, DEC- PDP8

## Fourth Generation: LSI (Large scale integration)

## Fifth Generation: VLSI (Very large scale integration)

## **Evolutionary Landmarks**

- 1936- First programmable computer developed by Konard Zuse
- 1944 Harvard Mark1 was developed
- Within 10 years 1954 ENIAC -I was developed that has used 20000 vaccume tubes
- IBM in 1953 launched IBM-701 EDPM
- 1954 first commercial programming language FORTRAN was developed
- 1958 IC (Integrated Circuit) Introduced
- 1962 First computer game was developed
- 1964 Mouse invented by Douglas Engel Bart
- 1969 ARPANET developed i.e. original Internet
- 1970 Intel prepared dynamic RAM chip and microprocessor
- 1971 FDD(Floppy disk drive) was created
- 1973 First NIC (Network Interface card) was developed
- 1979 WordStar the first word-processing program was developed
- 1981 Microsoft came with MS DOS and later on competition between Microsoft VS Apple started

## **Emergence of Cyberspace:**

- Cyberspace term is increasingly used in IT age
- It was initially coined by Gibson in his well known science fiction novel "Neuromancer"
- Cyberspace is defined as computer generated landscape i.e. virtual space of computer network
- It links all peoples computers and source of various information in the world through which one can navigate
- Cyberspace is world where anyone, anywhere may express his or her beliefs, no matter how but without fear
- Cyberspace goes on becoming more and more dominant aspect of the society
- Cyberspace evolution is more revolutionary since it has enabled explosion in social communication between ordinary peoples across geographical and political boundaries
- Youngsters are chatting with friends and strangers doing their shopping opening business discussing issues closer to their hearts with the peoples across the globe all on the Net
- Due to emergence and vast uses, cyberspace is also attracting social deviants to commit trespasses on acceptable social behavior on Net
- Typical cyber criminals & cyber crime are the result of cyberspace emergence

## National Crime Record Bureau (NCRB) Report 2007:

- India is having 4<sup>th</sup> largest no. of Internet users in the world (Still only 7% of total population of India is using Internet)
- 50% of jump is recorded in year 2007 from previous year 2006
- 46% of crimes reported of pornography
- 40% of Hacking
- In all above cases criminals are of 18 to 30 year age group
- Bhopal the capital of M.P. has recorded highest incident of crime in India i.e. 87.8% of total crime in country
- From above stats we can conclude that
  - There are more cyber criminals in Bhopal as compared to other part of country
  - Peoples of Bhopal are more aware as compared to the peoples of other part of country

In short cyberspace is goes on emerging day by day and this emergence leads to increase no of cyber criminals and crimes. So we cannot imagine cyber criminal and cyber cyber crime without cyberspace

## Cyber Jurisprudence:

- Jurisprudence is Latin Word Jus + Prudentia and now its mutated as jurisprudence
- Jurisprudence is defined as "Knowledge of law or knowledge of JUST or UNJUST "
- In cyber world major problem is most of the cases are virtual (i.e. evidence and dispute/problem is real) e.g. transfer of property act, registration act
- Legal issues related to electronic and Internet world require new kind of jurisprudence called cyber jurisprudence
- Cyber jurisprudence gives analysis of the law where there is no land and even there is no boundary where all the things may be different from physical world i.e. virtual from origin and nature
- Cyber jurisprudence deals with composite idea of cyber jurisdiction and cyber court venue in cyber space
- Cyber jurisprudence emphasis on to recognize cyber uniform rules and policies at international level

## In Brief Cyber jurisprudence

- Gives analysis of law
- Applicable to virtual world where there is no land and boundary
- All the things are different from physical world
- Emphasis on cyber uniform rules and policies at international level

## **Doctrinal Approach (Follows Precedent):**

- Doctrine: Stand for Principle
- Principle of stare de cisis : " Let the decision Stand"
- New cases should be decided in the same way as old cases
- Follows precedence if similar facts are there in previous cases
- Makes law stable and predictable so people know what to expect because judges follow previous decision

## Advantages:

- Faster decision
- Consistency and continuity in law
- Attempts internal consistency by the judges
- Adopts principle and apply to cases with similar circumstances

## Disadvantages:

- Size and diversity of cases: always finds precedent either side
- Most common approach, but its used by judges in both majority and minority opinions
- No guidelines for following precedent

#### Consensual Approach:

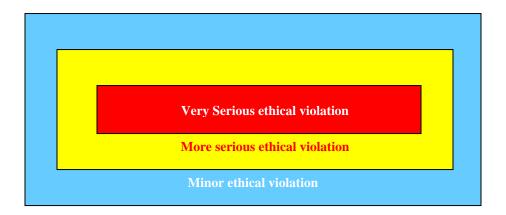
• Consensual approach is view or decision that is based on general agreement among all the members of group

#### Real Approach:

• Based on facts and evidences at a moment and based on that decisions are taken

#### **Cyber Ethics:**

- Cyber ethics are concerned with relationship and responsibilities towards customers, clients, co-workers and peoples affected by computers
- Ethics: "Do the right things"
- Ethic : "The principle and standard that guide our behavior toward other peoples"



- 1. Do not use computers to harm other peoples
- 2. Do not interfere with other peoples computer work
- 3. Do not snoop around other peoples files
- 4. Do not use computer to steal
- 5. Do not use computer to bear false witness
- 6. Do not use or copy software for which you have not paid
- 7. Do not use others computer resource without authorization
- 8. Do not appropriate other peoples intellectual output
- 9. Think about social consequence of program that you write
- 10. Use computers in such a way that show consideration and respect

## Cyber Jurisdiction:

- Jurisdiction is administration of justice, extent of exercising right
- Jurisdiction is the power of state or country
- Legal power or right and power to interpret and apply the law
- Jurisdiction specify the territory in which power can be exercised
- Jurisdiction is the authority given to the legal body or to the political leader to deal with legal matter and to pronounce or enforce legal matter
- Cyber jurisdiction gives right to exercise power throughout the cyber space (ideal case)
- As we know cyber crime can be performed anywhere and in any part of the country that leads jurisdiction very complex process
- There are several other factors like too much investigation agencies, intelligence of criminals
   makes jurisdiction complex
- To handle complexity of cyber jurisdiction there is need to specify
  - Laws that covers new crimes
  - Broad jurisdictional provisions
  - International agreements and cooperation is essential due to worldwide nature of cyberspace/Internet

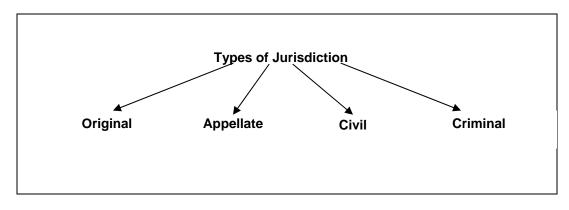
## Hierarchy of courts :

Sr. No	Court	Power	
1	Supreme court	Any punishment	
2	High Court	Any punishment	
3	Session & District judge	Death Sentence, lifetime imprisonment(may be rectified by high court or supreme court)	
4	Additional session judge	Death Sentence, lifetime imprisonment(may be rectified by high court or supreme court)	
5	Assistant session judge	10 year imprisonment and fine	
6	Chief judicial magistrate	7 year imprisonment and fine	
7	Additional chief judicial magistrate	7 year imprisonment and fine	
8	Chief Metropolitant magistrate	7 year imprisonment and fine	
9	Additional chief Metropolitant magistrate	7 year imprisonment and fine	
10	Judicial magistrate First class	3 year imprisonment and fine	
11	Metropolitant magistrate	3 year imprisonment and fine upto 5000 Rs	
12	Judicial magistrate Second class	1 year imprisonment and fine upto 1000 Rs	
13	Special judicial magistrate	1 year imprisonment and fine upto 1000 Rs	

## Table: Shows the hierarch of courts

As shown in the table courts are categorized based on the judicial power of the courts i.e. Supreme Court is having the highest power while special judicial magistrate is having the lowest power

## Types of Jurisdiction:



## **Original Jurisdiction:**

• Each court in hierarchy with original jurisdiction has power to decide upon a matter for the

first time its often-called courts of first instance

## **Appellate:**

- Gives authority to court for reviewing the cases second or third time based on appeal
- Higher courts can reconsider decision of lower courts
- Only court without appellate jurisdiction is magistrates court

## Civil:

- Gives power to the court to hear cases which are breaches of areas of civil law such as torture, compensation, marriage, family law, commercial cases
- Each court has CIVIL jurisdiction that specifies the range of damages that a particular court has
- Ex- Division of property, Custody of children, Personal injury, accidents, Bail application, Search warrants, Divorce, Maintenance for spouse and children

## Criminal Jurisdiction:

- Gives power to some courts to hear cases that are of criminal nature
- Courts hear summary and indictable offences relative to the ranking of their particular court within the hierarchy
- Generally supreme court hear most serious cases like murder and treason (disloyalty)

## Cyberspace:

- Cyberspace term is increasingly used in IT age
- It was initially coined by Gibson in his well known science fiction novel "Neuromancer"
- Cyberspace is defined as computer generated landscape i.e. virtual space of computer network
- It links all peoples computers and source of various information in the world through which one can navigate
- Cyberspace is world where anyone, anywhere may express his or her beliefs, no matter how but without fear

## Web space:

- Web space is also called as disk space (total amount of disks space in mb or gb available on web) that web hosting company gives you with your hosting plan
- Web space is used to hold HTML and images that will be displayed on your website when your WebPages are viewed
- Web space also includes website log files, front-page extensions, PHP files
- CGI programs, externally linked CSS and JavaScript files and usually e-mail accounts as well space for database

## Web hosting and web Development agreement:

## SAMPLE WEBSITE DEVELOPMENT AND HOSTING AGREEMENT

This form is written as a sample agreement that would be used when a customer desires to procure website development and hosting services from a provider. This sample agreement is customer-favorable and is likely to contain many provisions unacceptable to providers.

The following provisions need to be specifically considered:

- 1. The opening paragraph needs to be filled in
- 2. Section 3: The time period for a response to the Change Order should be filled in.
- 3. Section 3: The cap on Provider's per-hour charges should be filled in.
- 4. Section 4.1(f): The standards should be filled in.
- 5. Section 14.1: The county for jurisdiction should be filled in.
- 6. Exhibits A and B should be completed.

Of course, any sample agreement cannot provide legal guidance. Therefore, this agreement is merely intended to describe terms that are worth considering in the process of drafting a website

development and hosting agreement, but it should not be considered as rendering legal advice about the effect of such provisions. In all cases, users of this document should consult a qualified attorney to discuss the legal implications of the provisions in this sample.

## WEBSITE DEVELOPMENT AND HOSTING AGREEMENT

	TH	IIS	WEBSITE DEVEL	OPM	ENT	AND	) HOSTING	G AGREEMENT	(the "Agree	ement") is
made	as	of	, 199_	,	by	and	between		a	
corpora	atior	ו"I	Provider"), and				, a	('	'Customer").	

## 1. DEFINITIONS.

**1.1 "Content"** means all text, pictures, sound, graphics, video and other data supplied by Customer to Provider pursuant to Sections 2.1 or 4.1(c), as such materials may be modified from time to time.

**1.2 "Design Fee"** means the fees set forth in **Exhibit A** for Website development services provided pursuant to Section 2.

**1.3 "Domain Name"** means the domain name specified for the Website by Customer from time to time. The initial Domain Name is specified in **Exhibit A**.

**1.4 "Intellectual Property Rights"** means any and all now known or hereafter known tangible and intangible (a) rights associated with works of authorship throughout the universe, including but not limited to copyrights, moral rights, and mask-works, (b) trademark and trade name rights and similar rights, (c) trade secret rights, (d) patents, designs, algorithms and other industrial property rights, (e) all other intellectual and industrial property rights (of every kind and nature throughout the universe and however designated) (including logos, "rental" rights and rights to remuneration), whether arising by operation of law, contract, license, or otherwise, and (f) all registrations, initial applications, renewals, extensions, continuations, divisions or reissues hereof now or hereafter in force (including any rights in any of the foregoing).

**1.5 "Milestone Delivery Schedule"** means the schedule for development of the Work Product set forth in **Exhibit A**.

**1.6 "Provider Tools"** means any tools, both in object code and source code form, which Provider has already developed or which Provider independently develops or licenses from a third party, excluding any tools which Provider creates pursuant to this Agreement. By way of example, Provider Tools may include, without limitation, toolbars for maneuvering between pages, search engines, Java applets, and ActiveX controls. All Provider Tools used in the Website shall be set forth in **Exhibit A**.

**1.7 "Specifications"** means Customer's requirements set forth in Exhibits A and B, as amended or supplemented in accordance with this Agreement.

**1.8 "User Content"** means all text, pictures, sound, graphics, video and other data provided by Website users.

**1.9 "Website"** means the user interface, functionality and Content made available on pages under the Domain Name.

**1.10 "Work Product"** means all HTML files, Java files, graphics files, animation files, data files, technology, scripts and programs, both in object code and source code form,

all documentation and any other deliverable prepared for Customer by Provider in accordance with the terms of this Agreement.

#### 2. WEBSITE DEVELOPMENT.

- **2.1 Delivery of Initial Content.** Customer shall deliver to Provider all Content that Customer intends for Provider to incorporate into the Work Product (the "Initial Content"). The Initial Content shall be in the format(s) specified in **Exhibit A**.
- **2.2 Development.** Provider shall provide design, programming and other consulting services as specified in **Exhibit A** for the Design Fee set forth therein. Provider will provide the Work Product to Customer in accordance with the Milestone Delivery Schedule. Time is of the essence with respect to the performance of Provider's services hereunder.
- **2.3 Project Liaisons.** Each party's primary contact for development efforts shall be the project liaisons specified in **Exhibit A** or the person otherwise designated in writing by Customer or Provider, as the case may be.
- **2.4 Provider Tools.** In the event any Provider Tools are incorporated into or are used in conjunction with the Website, or any Provider Tools are used to manipulate Content for distribution on the Website, then Provider hereby grants to Customer a worldwide, non-exclusive, sublicense able (through multiple tiers), assignable, royalty-free, perpetual, irrevocable right to use, reproduce, distribute (through multiple tiers), create derivative works of, publicly perform, publicly display, digitally perform, make, have made, sell, offer for sale and import such Provider Tools in any media now known or hereafter known. Throughout the term of the Agreement and immediately upon termination, Provider shall provide to Customer the most current copies of any Provider Tools to which Customer has rights pursuant to the foregoing, plus any related documentation.
- **2.5 Shadow Site; Acceptance.** Provider shall make available complete versions of the Work Product on a password protected server (the "Shadow Site") for Customer's review and acceptance. Customer shall have 30 days to review and evaluate the Work Product (the "Acceptance Period") to assess whether it meets the Specifications and meets industry standards for professional, technical and artistic quality. If Customer rejects the Work Product during the Acceptance Period, Customer may, in its sole discretion, elect to: (a) extend the time for Provider to provide revised Work Product for acceptance testing in accordance with this section; (b) revise the Specifications and to negotiate an appropriate reduction in the Design Fee to reflect the revised Specifications; (c) complete the Work Product and deduct the costs of completion from the Design Fee; or (d) terminate this Agreement, in which case Section 6.3 applies.
- **2.6 Search Engine Registration.** When Provider makes the initial final version of the Work Product available to Customer, Provider shall propose Customer 50 search engines and directories where the Website should be registered. If requested by Customer, Provider at its expense shall promptly register all Website pages with all (or a designated subset) of such sites
- **2.7 Back up of Work Product.** Prior to initial acceptance of the Work Product, Provider shall back up its work at least once every 3 days and to store such back-up materials in a secure site at a separate location.

## 3. MODIFICATIONS.

If Customer desires to modify the Website (including the Platform Requirements specified in **Exhibit A**) at any time during the term of this Agreement, Customer shall describe the additional services or deliverables to Provider (the "Change Notice"). Within \_\_\_\_ days of such Change Notice, Provider shall submit a change order proposal (the "Change Order") which includes a statement of any additional charges and, if the Change Notice is provided prior to initial acceptance of the Work Product pursuant to Section 2.5, any adjustments to the Milestone Delivery Schedule resulting from the proposed Change Notice. On Customer's written approval of the Change Order, the Change Order will become a part of this Agreement. Any additional deliverables or changes to the Website described in the Change Order shall be subject to acceptance testing at the Shadow Site as described in Section 2.5. Provider shall quote all charges for the Change Orders at its then-current standard charges, but in no event shall it exceed the per hour specified in **Exhibit A**.

## 4. WEB HOSTING.

**4.1 Services.** Following Customer's initial acceptance of the Work Product pursuant to Section 2.5, Provider shall provide the following web hosting services:

- (a) Domain Name. If requested by Customer, Provider at its expense shall cooperate with Customer in registering the Domain Name with InterNIC. Customer shall own all right, title and interest in and to the Domain Name and all Intellectual Property Rights related thereto. Unless otherwise specified by Customer, Provider shall list Customer's project liaison as the administrative, technical and billing contact.
- (b) Content Control. Customer shall have sole control over the Content. Provider shall not supplement, modify or alter any Work Product which has been accepted by Customer or any Content (other than modifications strictly necessary to upload the Content to the Website) except with Customer's prior written consent. Provider shall upload all Content, including updates, to the Website within 24 hours of delivery to Provider. Provider shall also permit Customer to electronically transmit or upload Content directly to the Website.
- (c) Site Backup. At Provider's expense, Provider shall maintain a complete and current copy of the Website on a server located at a remote location. In the event that service is interrupted to the Website, the remote server shall be immediately activated so that public access to the Website continues without interruption.
- (d) Site Downloads. Provider at its expense shall make a complete backup of the Website every day. On the first day of every month, and at any other time as reasonably requested by Customer, Provider at its expense shall deliver to Customer a complete electronic copy of the Website (including all Provider Tools).
- (e) Server Logs. On the first day of every month, and at any other time as reasonably requested by Customer, Provider at its expense shall deliver to Customer in electronic form the server logs of Website activity (the "Server Logs").
- (f) Standards. Provider's hosting standards shall conform to the following:
  - (i) Availability of Web Site. The Website shall be publicly available to users a minimum of \_\_\_% of the time during any 24 hour period, \_\_\_% of the time during any 7 day period, and \_\_\_% of the time during any 30 day period; and there will be no period of interruption in public accessibility to the Website that exceeds \_\_ continuous hours.

- (ii) Response Time. The mean response time for server response to all accesses to the Website shall not exceed more than \_\_\_\_\_ seconds during any 1 hour period.
- (iii) Bandwidth. The bandwidth representing the Website's connection to the Internet shall be operating at capacity no more than \_\_\_\_ minutes in any 24 hour period.
- (iv) Security. Provider shall prevent unauthorized access to the Shadow Site, other restricted areas of the Website and any databases or other sensitive material generated from or used in conjunction with the Website; and Provider shall notify Customer of any known security breaches or holes.
- (v) Inapplicability of Force Majeure. The foregoing standards shall apply regardless of the cause of the interruption in service, even if the interruption in service was beyond the control of Provider.
- (vi) Remedies. In addition to other applicable remedies, Customer may immediately terminate this Agreement without a further cure period if: (x) any breach of this Section 4.1(f) is not cured within the later of the next measurable period (only if applicable) or 10 days, (y) the same subsection is breached a second time, or (z) there are 2 breaches of separate subsections (even if cured) within any 6 month period.

**4.2 Customer License.** During the period that Provider provides web hosting services pursuant to this Section 4, Customer hereby grants to Provider a non-exclusive, non-sublicenseable, royalty-free, worldwide license to reproduce, distribute, publicly perform, publicly display and digitally perform the Content and Work Product only on or in conjunction with the Website. Customer grants no rights other than explicitly granted herein, and Provider shall not exceed the scope of its license.

**4.3 Trademarks.** Subject to the terms and conditions of this Agreement, each party hereby grants to the other party a limited, non-exclusive, non-sublicenseable, royalty-free, worldwide license to use such party's trademarks, service marks, trade names, logos or other commercial or product designations (collectively, "Marks") for the purposes of creating content directories or indexes and for marketing and promoting the Website. The trademark owner may terminate the foregoing license if, in its sole discretion, the licensee's use of the Marks does not conform to the owner's standards. Title to and ownership of the owner's Marks shall remain with the owner. The licensee shall use the Marks exactly in the form provided and in conformance with any trademark usage policies. The licensee shall not form any combination marks with the other party's Marks. The licensee shall not take any action inconsistent with the owner's ownership of the Marks and any benefits accruing from use of such Marks shall automatically vest in the owner.

## 5. PAYMENTS.

- **5.1 Fees.** Except as otherwise specified in **Exhibit A**, Provider shall invoice all fees monthly, and payment is due 30 days from delivery of the invoice. All fees quoted include, and Provider shall pay, all sales, use, excise and other taxes which may be levied upon either party in connection with this Agreement, except for taxes based on Customer's net income.
- 5.2 Expenses. Customer shall reimburse Provider for all reasonable out-of-pocket expenses which have been approved in advance by Customer and which are incurred by Provider in the performance of services hereunder, including but not limited to travel and lodging expenses, long distance calls, and material and supply costs, within 30 days after

Customer's receipt of expense statements including appropriate receipts or other evidence of the expense.

#### 6. TERMS AND TERMINATION.

**6.1 Term.** The initial term of this Agreement shall be as specified in **Exhibit A**. Thereafter, this Agreement shall continue until terminated with at least 90 days written notice.

**6.2 Termination for Cause.** Except as otherwise provided for herein, either party may terminate this Agreement upon the material breach of the other party, if such breach remains uncured for 60 days following written notice to the breaching party.

**6.3 Termination During Initial Website Development.** In the event that Customer terminates the Agreement prior to initial acceptance of the Work Product pursuant to Section 2.5, Customer shall return all Work Product to Provider and Provider shall return any Initial Content and refund to Customer any portion of the Design Fee previously paid to Provider hereunder. All licenses granted hereunder shall terminate.

**6.4 Termination During Website Hosting.** In the event of expiration or termination of this Agreement while Provider is providing Web hosting services pursuant to Section 4, Provider shall download all materials on the Website to a medium of Customer's choosing and deliver such materials to Customer by 5 p.m. the same business day. In addition, at no cost to Customer, Provider shall: (a) keep the Website publicly accessible for a period of 90 days following the date of termination of this Agreement; (b) if the transfer requires a change in the Domain Name, immediately upon the date that the Website is no longer publicly accessible, and for a period of 12 months thereafter, maintain the Website's URL and, at such URL, provide 1 page (including a hypertext link) that Customer may use to direct its users to its new Website or some other URL of Customer's choosing; and (c) if the transfer does not require a change in the Domain Name, cooperate with Customer in assigning a new IP address to the Domain Name as Customer may request and transferring all operations of the Website to a new provider.

**6.5 Effect of Termination.** Sections 1, 2.4, 6.5, 10, 11, 12, 13 and 14 shall survive termination of this Agreement. Upon the termination of this Agreement for any reason and upon request by Customer at any time, Provider shall promptly return, in their original form, all Content and copies thereof and deliver the originals and all copies of the Work Product in whatever stage of completion to Customer. Subject to Provider's obligations pursuant to Section 6.4, Provider shall remove all copies of the Content from servers within its control and use reasonable efforts to remove any references to Customer or the Content from any site which caches, indexes or links to the Website.

## 7. PROVIDER WARRANTIES.

**7.1 Work Product Warranties.** Provider warrants that any Work Product, Provider Tools or Provider-made changes to the Content shall not: (a) infringe on the Intellectual Property Rights of any third party or any rights of publicity or privacy; (b) violate any law, statute, ordinance or regulation (including without limitation the laws and regulations governing export control, unfair competition, antidiscrimination or false advertising); (c) be defamatory, trade libelous, unlawfully threatening or unlawfully harassing; (d) be obscene, child pornographic or indecent; and (e) contain any viruses, trojan horses, trap doors, back doors, easter eggs, worms, time bombs, cancelbots or other computer programming routines that are intended to damage, detrimentally interfere with, surreptitiously intercept or expropriate any system, data or personal information.

**7.2 Additional Warranties.** Provider warrants that: (a) any Work Product or Provider Tools will conform to their applicable Specifications or acceptance criteria when delivered and for a period of 1 year thereafter; and (b) there is no outstanding contract, commitment or agreement to which Provider is a party or legal impediment of any kind known to Provider which conflicts with this Agreement or might limit, restrict or impair the rights granted to Customer hereunder.

**7.3 Year 2000.** Provider warrants that any Work Product or Provider Tools will: (a) include year 2000 date conversion and compatibility capabilities including, but not limited to: century recognition; calculations which accommodate same century and multicentury formulas and date values; correct sort ordering; and interface values that reflect the century; (b) manage and manipulate data involving dates, including single century formulas and multi-century formulas, and will not cause an abnormal abend or abort within the application or result in the generation of incorrect values or invalid outputs including such duties; (c) provide that all date-related user interface functionalities and data fields include the indication of the correct century; and (d) provide that all date-related system to system or application to application data interface functionalities will include the indication of the correct century.

**8. CUSTOMER COVENANTS.** During the period that Provider provides Web hosting services pursuant to Section 4, Customer shall not distribute on the Website any Content that: (a) infringes on the Intellectual Property Rights of any third party or any rights of publicity or privacy; (b) violates any law, statute, ordinance or regulation (including without limitation the laws and regulations governing export control, unfair competition, antidiscrimination or false advertising); (c) is defamatory, trade libelous, unlawfully threatening or unlawfully harassing; (d) is obscene, child pornographic or indecent; or (e) contains any viruses, trojan horses, worms, time bombs, cancelbots or other computer programming routines that are intended to damage, detrimentally interfere with, surreptitiously intercept or expropriate any system, data or personal information.

**9. DISCLAIMER OF WARRANTIES.** EXCEPT AS SET FORTH HEREIN, EACH PARTY EXPRESSLY DISCLAIMS ALL WARRANTIES OR CONDITIONS OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION THE IMPLIED WARRANTIES OF TITLE, NON-INFRINGEMENT, MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

## 10. OWNERSHIP.

**10.1 Ownership of Work Product.** Provider hereby irrevocably assigns to Customer all right, title and interest in and to all Work Product and documentation produced pursuant to Customer's requests for services hereunder including, without limitation, all applicable Intellectual Property Rights thereto. If Provider has any such rights that cannot be assigned to Customer, Provider waives the enforcement of such rights, and if Provider has any rights that cannot be assigned or waived, Provider hereby grants to Customer an exclusive, irrevocable, perpetual, worldwide, fully paid license, with right to sublicense through multiple tiers, to such rights. Provider acknowledges that there are, and may be, future rights that Customer may otherwise become entitled to with respect to the Work Product that do not yet exist, as well as new uses, media, means and forms of exploitation throughout the universe exploiting current or future technology yet to be developed, and Provider specifically intends the foregoing assignment of rights to Contractor to include all such now known or unknown uses, media and forms of exploitation throughout the universe.

**10.2 Ownership of Content and Website.** As between Provider and Customer, any Content given to Provider by Customer under this Agreement or otherwise, and all User Content, shall at all times remain the property of Customer or its licensor. Provider shall have no rights in such Content or User Content other than the limited right to use such content for the purposes expressly set forth in this Agreement.

**10.3 Employee and Subcontractor Contracts.** Provider shall cause each individual or company employed by Provider in connection with the Work Product to execute a contract regarding confidentiality and assignment of rights prior to each such individual or company's commencement of services thereunder. Such contracts shall: (a) include a full assignment of all rights to Customer, (b) include a waiver of any moral or similar rights, (c) be freely assignable, and (d) contain restrictions on use and disclosure. Further, with respect to any subcontractors which it employs: (x) Provider shall obtain the written consent of Customer, (y) Provider shall be responsible for the direction and coordination of the services of such subcontractors, and (z) Customer shall have no obligation to pay such subcontractor(s).

## 11. INDEMNITY.

**11.1 Customer Indemnity.** Customer shall defend Provider against any third party claim, action, suit or proceeding alleging any breach of the covenants contained in Section 8. Subject to Section 11.3, Customer shall indemnify Provider for all losses, damages, liabilities and all reasonable expenses and costs incurred by Provider as a result of a final judgment entered against Provider in any such claim, action, suit or proceeding.

**11.2 Provider Indemnity.** Provider shall defend Customer against any third party claim, action, suit or proceeding resulting from Provider's acts, omissions or misrepresentations under this Agreement (including without limitation Provider's breach of the warranties contained in Sections 7). Subject to Section 11.3, Provider shall indemnify Customer for all losses, damages, liabilities and all reasonable expenses and costs incurred by Customer as a result of a final judgment entered against Customer in any such claim, action, suit or proceeding.

**11.3 Mechanics of Indemnity.** The indemnifying party's obligations are conditioned upon the indemnified party: (a) giving the indemnifying party prompt written notice of any claim, action, suit or proceeding for which the indemnified party is seeking indemnity; (b) granting control of the defense and settlement to the indemnifying party; and (c) reasonably cooperating with the indemnifying party at the indemnifying party's expense.

**12. CONFIDENTIAL INFORMATION.** Customer's "Confidential Information" are any passwords used in connection with the Website (or the Shadow Site), all Server Logs, all Work Product and documents related to the Work Product, any Content which Customer designates as confidential. and any other materials of Customer which Customer designates as confidential or which Provider should reasonably believe to be confidential. Customer's "Confidential Information" also includes the Website itself until such time as Customer decides to make the Website publicly available to users. Provider's "Confidential Information" is defined as the source code of any Provider Tools. Provider understands and agrees that Customer does not want any other Confidential Information of Provider, and should the parties believe that additional confidential information of Provider needs to be disclosed to Customer, the parties shall execute a separate non-disclosure agreement regarding such information. Each party shall hold the other party's Confidential Information in confidence and shall not disclose such Confidential Information to third parties nor use the other party's Confidential Information for any purpose other than as necessary to perform under this Agreement. The foregoing restrictions on disclosure shall not apply to Confidential Information which is (a) already known by the recipient, (b) becomes, through no act or fault of the recipient, publicly known, (c) received by recipient from a third party without a restriction on disclosure or use, or (d) independently developed by recipient without reference to the other party's Confidential Information.

**13. LIMITATIONS ON LIABILITY.** EXCEPT FOR BREACHES OF SECTIONS 4.1, 4.2, 4.3 AND 14.3, IN NO EVENT SHALL EITHER PARTY BE LIABLE FOR ANY LOST PROFITS OR

SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES (HOWEVER ARISING, INCLUDING NEGLIGENCE) ARISING OUT OF OR IN CONNECTION WITH THIS AGREEMENT.

## 14. GENERAL PROVISIONS.

**14.1 Governing Law.** This Agreement will be governed and construed in accordance with the laws of the State of California without giving effect to principles of conflict of laws. Both parties agree to submit to jurisdiction in California and further agree that any cause of action arising under this Agreement may be brought in a court in \_\_\_\_\_ County, California.

**14.2 Further Assurances.** Provider shall cooperate with Customer, both during and after the term of this Agreement, in the procurement and maintenance of Customer's rights to intellectual property created hereunder and to execute, when requested, any other documents deemed necessary or appropriate by Customer to carry out the purpose of this Agreement.

**14.3 Compliance With Laws.** Provider shall ensure that its Website design and its web hosting services will comply with all applicable international, national and local laws and regulations.

**14.4 Severability; Waiver.** If any provision of this Agreement is held to be invalid or unenforceable for any reason, the remaining provisions will continue in full force without being impaired or invalidated in any way. The parties agree to replace any invalid provision with a valid provision which most closely approximates the intent and economic effect of the invalid provision. The waiver by either party of a breach of any provision of this Agreement will not operate or be interpreted as a waiver of any other or subsequent breach.

**14.5 Headings.** Headings used in this Agreement are for reference purposes only and in no way define, limit, construe or describe the scope or extent of such section or in any way affect this Agreement.

**14.6 Assignment and Subcontracting.** This Agreement and Provider's rights, duties and obligations hereunder are personal to Provider and Provider may not assign its rights, delegate its duties or subcontract its rights without Customer's prior written consent in Customer's sole discretion. The sale, transfer or encumbrance of 25% or more of the ownership interest in, or voting stock of, Provider or the merger of Provider into or with any other third party or entity, shall be deemed an assignment for purposes of this Section 14.6. Customer may assign, transfer, delegate or grant all or any part of its rights pursuant to this Agreement to any person or entity. Any assignment, delegation or subcontract in violation of this Section 14.6 shall be void and of no effect. The parties' rights and obligations will bind and inure to the benefit of their respective successors and permitted assigns.

**14.7 Independent Contractors.** The parties to this Agreement are independent contractors, and no agency, partnership, joint venture or employee-employer relationship is intended or created by this Agreement. Neither party shall have the power to obligate or bind the other party. Personnel supplied by Provider shall work exclusively for Provider and shall not, for any purpose, be considered employees or agents of Customer. Provider assumes full responsibility for the acts of such personnel while performing services hereunder and shall be solely responsible for their supervision, direction and control, compensation, benefits and taxes.

**14.8** Notice. Any notices required or permitted hereunder shall be given to the appropriate party at the address specified below or at such other address as the party

shall specify in writing. Such notice shall be deemed given: upon personal delivery; if sent by telephone facsimile, upon confirmation of receipt; or if sent by certified or registered mail, postage prepaid, 5 days after the date of mailing.

**14.9 Counterparts.** This Agreement may be executed in one or more counterparts, each of which shall be deemed an original and all of which shall be taken together and deemed to be one instrument.

**14.10 Injunctive Relief.** Provider hereby waives any right to injunctive relief or rescission and agrees that its sole and exclusive remedy for any breach or alleged breach, termination or cancellation of this Agreement by Customer shall be an action for damages and termination of its services hereunder. Provider agrees that Provider's services are unique and that Customer may suffer irreparable harm in the event of any breach by Provider and that monetary damages in such event would be substantial and inadequate to compensate Customer. Consequently, Customer shall be entitled, in addition to such monetary relief as may be recoverable by law, to such injunctive or other relief as may be necessary to restrain any threatened, continuing or further breach by Provider, without showing or proving actual damage sustained by Customer and without posting a bond.

**14.11 Insurance**. Provider shall, throughout the performance of its services pursuant to this Agreement, maintain at its sole cost and expense: Comprehensive general liability insurance and broad form contractual insurance (including automobile liability insurance and broad form contractual coverage) with minimum limits of \$1,000,000 combined single limit per occurrence, protecting Provider and Customer from claims for loss or damage to property or loss, damage or liability for injury or death to persons occurring from any cause whosoever that may arise from or in connection with the performance of Provider's services under this Agreement or from or out of any negligent act of omission of Provider, its officers, directors and employees; and worker's compensation insurance as required by applicable law.

**14.12** Entire Agreement. This Agreement, including the Exhibits attached hereto, sets forth the entire understanding and agreement of the parties and supersedes any and all oral or written agreements or understandings between the parties as to the subject matter of this Agreement. It may be changed only by a writing signed by both parties. Neither party is relying upon any warranties, representations, assurances or inducements not expressly set forth herein.

**IN WITNESS WHEREOF**, each of the parties hereto have executed this Agreement as of the date first written above.

PROVIDER:
-----------

## CUSTOMER:

By:	By:	
By: Title:	Title:	
Address:	Address:	
Fax:	Fax:	

## EXHIBIT A

## Services and Fees

## CONTENT

All Content shall be provided to Provider by Customer in the formats specified below:

All text shall be provided in [ASCII, RTF, PageMaker, WordPerfect, Word, PDF, or HTML].

All graphics shall be provided in [TIFF, GIF, JPEG, or PMP format].

## <u>WEBSITE</u>

The Website shall not include any Provider Tools except for the following specified below:

## PLATFORM REQUIREMENTS

The Work Product and Provider Tools provided to Customer by Provider shall be compatible with the following browser(s): [e.g. Netscape, MS Internet Explorer, AOL, Lynx]. [DESCRIBE WHICH VERSIONS AND HOW THESE STANDARDS WILL BE UPDATED FOR FUTURE VERSIONS]

The Work Product shall be implemented for a \_\_\_\_\_\_ server running on the following server software \_\_\_\_\_.

## **SERVICES**

For the Design Fee, Provider shall provide the following services in accordance with the Milestone Delivery Schedule below. Examples include: Provider will prepare design specifications for the Website which are consistent with the Specifications in **Exhibit B**.

## Milestone Schedule

The Milestone Schedule for the project is shown on the chart below:

MILESTONE DESCRIPTION	RESPONSIBILITY	DATE
1. Agreement on site goals		
2. Provider and Customer agree on list of items to		
be included in Website, sorted into topical categories		
3. Provider prepares Website storyboard, including		
navigation scheme		
4. Provider develops design parameters for pages		
5. Customer tests and prototypes design		
6. Customer specifies changes to the prototype that		
are required to conform to Specifications and/or to		
address issues not contemplated by Specifications		
<ol><li>Provider resubmits revised prototype</li></ol>		
8. Provider develops Style Guide		
9. Provider makes final version of Work Product		
available on Shadow Site		
10. Customer accepts final version of Work Product		

For the monthly web hosting fee, Provider shall provide the following services:

[Examples include: ongoing HTML markups; content reloads; server maintenance; hardware, software and Internet connection upgrades; site navigation and link testing; end user support; Customer technical support; server log analysis; specification of security levels provided by Provider; transaction software to process transactions on-line, storage space on the server (and if so, how much); secure access to Website to monitor performance; access to telecommunications software, Website analysis/tracking software, etc. (Be specific).]

## FEES

\* Design fee: \_\_\_\_\_

\* Monthly web-hosting fee: \_\_\_\_\_

\* Maximum per-hour charge: \_\_\_\_\_

\* Other charges:

#### <u>TERM</u>

\_\_\_\_\_ months from the Effective Date.

## PROJECT LIAISONS

Provider Liaison: Customer Liaison:

## DOMAIN NAME

http://\_\_\_\_\_

## Exhibit B

## Website Specifications

- 1. The graphics used in Customer's Website shall be in [specify format].
- 2. No item in the Website shall exceed \_\_\_\_ pixels in width.
- 3. Each page shall have the following initial "body" statement: \_\_\_\_\_\_.
- 4. Provider shall develop the Website to project the highest professional image. Provider shall not include any links to other sites without Customer's prior written consent.
- The maximum size for any page shall be \_\_\_\_\_, the average size of any page shall be \_\_\_\_\_, and the user shall have the option to select a low-graphics version of the Website to minimize download time.
- 6. [Include other specifications required by Customer].

## Legal and Technological Significance of domain Names

### **Domain Names**

- 12 digit numbers are hard to remember. Using a name is easier.
- Names used for TCP/IP addresses are called domain names. bitdurg.org is a domain name.
- When you address a web site like <u>http://www.bitdurg.org</u> the name is translated to a number by a DNS process (Domain Name Server).
- All over the world, a large number of DNS servers are connected to the Internet. DNS servers are responsible for translating domain names into TCP/IP addresses and update each other with new domain names.
- When a new domain name is registered together with a TCP/IP address, DNS servers all over the world are updated with this information.

## What is Domain Name?

The main purpose of a **domain name** is to provide symbolic representations, i.e., recognizable names, to mostly numerically addressed Internet resources. This abstraction allows any resource (e.g., website) to be moved to a different physical location in the address topology of the network, globally or locally in an intranet, in effect changing the IP address. This translation from domain names to IP addresses (and vice versa) is accomplished with the global facilities of Domain Name System (DNS).

By allowing the use of unique alphabetical addresses instead of numeric ones, domain names allow Internet users to more easily find and communicate with web sites and any other IP-based communications services. The flexibility of the domain name system allows multiple IP addresses to be assigned to a single domain name, or multiple domain names to be services from a single IP address. This means that one server may have multiple roles (such as hosting multiple independent websites), or that one role can be spread among many servers. One IP address can also be assigned to several servers, as used in anycast networking.

A Domain name can contain the numbers 0-9, the letters a-z and the hyphen character ("-"). Note however that Domain names cannot begin or end with a hyphen. You can use UPPERCASE or lowercase letters when registering a Domain name, but you may occasionally run into problems if you mix cASes, depending on the exact configuration of the web server that will be hosting your website.

The easiest way to make sure your Domain name will not cause you any problems later is to register it using all lowercase letters.

A Domain name can contain up to 67 characters, although some Domain registrars have still not reconfigured their services to accommodate these longer Domain names (Domain names used to be limited to 26 characters until mid-1999).

This 67 character limit includes the "." (dot) and the top level Domain. So in the case of a ".com" name, for instance, you'll be able to specify up to 63 characters yourself.

Some top Domains from specific countries have additional limitations on length and on the number of characters in a Domain. Some even specify a minimum length for a Domain name, such as 3 characters or more.

There are many different ways to research Domain names and to find inspiration for new Domain names to register. The way you research Domain names will be colored to a large extent by the

intended use for the Domain name i.e. is it being registered for a new or existing site, for investment purposes or to "protect" an established brand or trademark.

#### You're looking for a Domain name for a new website

Start by noting down what the site will be about, in a paragraph or two. Then boil down this description into a maximum of 2 sentences. Don't worry about covering all the details - just make sure you're addressing the essentials of what the site will be about.

Now take your short description, and underline all the "key" words that describe your site. Let's take a specific (fictional) example:-

"Our website will be the leading source of information on weaving and knitting, providing knitting patterns and design ideas, an introduction to weaving, a guide to selecting and caring for looms, and a store for people to buy wool, yarn and books."

Now try to come up with a Domain name that either addresses the one fundamental concept of the site, or that marries two or more key concepts in a single name.

In our example: weavingandknitting.com, knittingandweaving.com, knittingpatterns.com, knittingworld.com, weavingworld.com etc.

Once you've drawn up a short-list of Domain names to "test" for availability, it's time to fire up your favorite Domain name search engine.

If you're having difficulty coming up with useful Domain name combinations from your keywords, try a single keyword and add prefixes or suffixes. Not all prefixes and suffixes are appropriate in all situations - use your judgment when deciding which to add.

#### **Common Prefixes**

e, e-, my, i, i-, the, online, net, web, internet, hot, cool, our, your

## **Common Suffixes**

world, links, site, web, net, resource, business, company, corp, inc, shop, store, mall, search, directory, guide

## You're looking for a Domain name for an existing website

In the case that you're looking to buy a Domain name for a website that is already up and running, your options will be more limited than if you're starting from scratch.

First, have you already been operating the site under a clearly-recognizable "name" or "title"? Even if your site is hosted on cheap space at an ISP, or on a free host, you may have given it a short title in large letters (or in a logo). This is the obvious place to start when looking for a Domain name.

If your site's name (as given in its title) is very generic, you may well find one (or many) other sites already using it - and the corresponding Domain name(s) long since gone. In that case, you have to decide whether you will make a bid to buy the Domain name you want from its current owner, look for an alternative extension or use the brainstorming tricks outlined earlier in this article to find a suitable alternative. You can also consult the guide to choosing the right Domain name for more help.

## Why to Book a Domain Name

There are many uses for Domain Names.

#### Domain names can be used to establish a unique identity in cyberspace

Companies often choose a domain name that corresponds to their company name. For instance, Net4India's web site is at net4india.com and Yahoo is at yahoo.com.

#### Generic domain names are popular

A generic domain name is one that would not immediately be associated with a company, but instead is a name that defines an entire category of business. Some examples of generic names include movies.com, flowers.com and essay.com. Companies have gone on to create successful brands based on a generic domain name, and these names tend to be very valuable if the word is a common one.

#### Domain names can be resold, leased and bartered

As well as being used to identify a website, domain names can be resold to other companies or people, leased or even bartered for other names or for goods or services. A whole industry has sprung up around the resale of domain names, with domain brokers acting as middlemen in the sales process. The profits from a successful sale can be enormous compared to the original value of the name, since some domains have sold for over \$1 million - and cost under \$100 to register!

## Domain names can be used to give yourself a unique, permanent email address

Many companies will set you up with email forwarding, where messages sent to @yourdomain.com will be redirected to your existing mailbox as provided by your ISP. This lets you choose a truly unique email address and keep the same email address regardless of which ISP you use to access the Internet.

## Domain names can be used to improve a site's ranking in certain search engines

Although the rules by which search engines "rank" sites when returning search results change often, some search engines have recently been favoring sites with their own domain names over sites that do not have a domain name of their own. Some search engines even give increased relevancy to domain names that contain "keywords" that people search for. For example, a search engine might rate a site with the domain name "freestuffguide.com" more highly than a site with the domain name "for the search "free stuff" since the former domain name contains the search terms being searched for.

#### Your own Domain Name

Make it easy for your customers to find you on the Internet with your own unique domain name (alsoknown as an Internet address or URL) for example www.bit.ac.in or bitdurg.org Having your own domain name also makes your email address consistent and meaningful, eg dpmishra@bitdurg.org dpmishra@bit.ac.in and it means that you don't have to change it when you change ISP Thousands of domains are being registered every day so we strongly

recommend that you register your domain name now, otherwise you may find your company name already taken.

#### Where to Host our Site

How well do you know the company where u host your site:

#### How often do you back up the files?

The answer you should be looking for is that they backup every night. You should also keep a up to date copy of your site on your computer to be on the safe side.

## What sort of equipment and software are in place to ensure that my site is up?

Most Internet Hosting Companies use some combination of equipment and software to ensure that the servers are up and working. You want to make sure that the server is hooked up to an UPS (uninterrupted Power Supply). The UPS is just a big battery that will provide the server with power for 30 minutes to several hours. Also most Hosting Companies have software and equipment that monitors the servers and restarts them if they quit serving pages. You will also want to know if this fails, does the company have a way to restart the server manually.

#### How many domains can I host per account?

If you have 2 domain names, say joestools.com and cooltools.com, and wanted them to both go to the same site, would they charge you extra for the domain names or since it all goes to one site will you be charged just for one. If you plan on hosing several sites to see which ones will be successful, you might want to ask for a volume discount or ask if they have a reseller package.

#### What are their billing policies?

You need to find out who to contact if you have a problem with billing and what is the process for resolving problems.

## What is the procedure for uploading files to your account?

You want to know if you will have 24 hour FTP access. Some hosting companies restrict how you can upload files to the servers.

## Do they provide log files or Stats?

Hosting companies usually do one or the other, either provide you with the raw logs for you account or provide you with some sort of online statistics. You will want to make sure that the logs contain information from search engines on the words and phrases used, how long the visitor stayed at the site, entry page, number of page visits, broken links and errors, and exit page.

### Do they provide Form to email processing?

Nearly every hosting company will provide atleast a basic form of this. You will want to know if there are any limitations on the size of the form. Also you might want to ask if there is a way to encrypt the form. If so you could use this for an ecommerce solution until you are ready for a shopping cart.

#### What exactly is included in the monthly charge?

You want to know what the features of the account are, but you also want to know if you need them to do something extra whether there will be a charge for it.

#### How quickly they respond when you have questions?

Before choosing a hosting company call them up or email them with a question and see how quickly they have an answer for you.

## What do you need to do regularly?

- Monitor your site As I stated earlier, be sure you use a site monitoring service to keep an eye on your web site. That way you will know immediately if something happens.
- Backup your site You should perform all edits to your pages on your own computer and upload them to your site. Never edit your site pages directly. This, by it's very nature, ensures that a copy of your site always exists on your own computer system.
- However, you may also have databases stored on your web site which do not originate from your computer. These might include mailing lists, demographic data, links and other similar things. These items must all be copied to your own hard drive on a regular basis.
- You can set up your favorite FTP program to do scheduled downloads of selected databases, or you can just manually copy them on a regular basis.
- In addition, your web host should be backing your site up daily. In many instances, these backups are available to your as downloadable zip files. Be sure and copy these down to your system once in a while perhaps once a week.
- Don't forget about such things as autoresponders, CGI routines and anything else which you may enter at your site control panel. You must ensure that you have a backup of everything.
- Keep a log Be sure you know everything that you've done to your site. You should list all of your autoresponders and their names, track any subdomains which you have set up, and anything else which you may do. This way if you have to change you can recreate your site quickly and efficiently.
- Only use a domain name Always reference your site via a domain name which you
  have purchased and control. Never, ever use the URL provided by your web host, as
  tempting as this can be at times. I ran into a situation where my web host URL was
  somehow entered into a number of search engines, and I discovered I was getting tens of
  thousands of hits from these URLs. This forced me to keep paying for the old site after I
  switched hosts, just to be able to redirect the traffic to my new site.
- Make sure you register your domain elsewhere The first time I registered a domain name, it seemed so convenient to just use my web hosts domain registration service. What I didn't know is they became the registrar, and it was a nightmare getting the domain transferred to a different one. By registering the domain at a different company, you will most likely get a better price, and you will gain independence from your web host.
- Scope out a few hosts in advance Even if you are completely happy with your current web host, at least take a few minutes and have a few names ready just in case. This way if you are forced to move, you have a pretty good idea of where.

## Can you really get FREE web hosting?

• Yes, there are hundreds of free hosts, as far as not having to pay any money. Generally they either cost you in time, hosting restrictions, or modifying your web pages by adding popups or other adverts. When looking for free web hosting (especially on search engines), you should beware that there are also a large number of commercial web hosts that claim to offer free hosting, but those have a catch, such as paying an excessive amount for a domain name or other service, and therefore aren't really free.

## How do the free web hosts make money?

• The free hosts often make money in other ways, such as putting banners, popups, or popunders on your site. Some free hosting companies do not put ads on your site, but require you as the webmaster to click on banners in their control panel or signup process, or just display banners in the file manager in hopes you will click them. Some lure visitors with free hosting in hopes you will upgrade and pay for advanced features. A few send you occasional emails with ads, or may even sell your email address.

#### Are free web hosts reliable?

Generally no, although there may be a few exceptions. If the host is making money from banner ads or other revenue sources directly from the free hosting, then they likely will stay in business, provided someone doesn't abuse their hosting with spam, hacking, etc., as often happens to new free web hosting companies with liberal signup policies. If the host accepts just anyone, especially with an automated instant activation and it offers features such as PHP or CGI, then some users invariably try to find ways to abuse it which can cause the host to have a lot of downtime or the server to be slow. It is best if you choose a very selective free host which only accepts quality sites (assuming you have one).

#### Recommended free web hosts

- It would be awfully hard to recommend any host and someone not like it, as different people need different hosting features and have different priorities, and the hosting quality may change over time. Also some people want free domain hosting (you own the domain), and others might not be able to buy a domain. Here are some of the most recommended free web hosts, and their main features.
- <u>DistantHost</u> (http://signup.distanthost.com/) offers subdomain or domain hosting, 100 MB webspace, no forced ads on your site, FTP and/or browser upload, CGI and Perl, PHP, MySQL database, SSI, and FrontPage Extensions, as well as a collection of other pre-installed scripts. It has great support and a generous bandwidth limit of 6 GB/month. There is also CPanel 7 control panel with most if not all the options you would find on a paid host: web-based Email and forwarding, statistics, custom error pages, SSL, Cron, and much more. What is the catch? You must click on a certain number of banners in the control panel monthly.
- <u>HostRave</u> (http://www.freehosting.hostrave.com/) gives you a URL such as http://freehosting.hostrave.com/b/, and offers 21 MB webspace, POP3 and web-based Email, PHP and SSI, MySQL database, guestbook and forum script, and unmetered bandwidth. You can upload via a file manger or FTP import. Only English websites are accepted, and there is a text link at the top of your pages. It has about the best support of any free host, and in fact, maybe better than any paid host. It's two sister sites offer slightly different features:
   <u>Hp-h</u> (http://signup.hspages.com/cgi-bin/signup) 50 MB. Homepage-Host (http://www.homepage-host.uni.cc/index1.html) 10 MB, and no forced ads.
- <u>Yahoo Geocities</u> (http://geocities.yahoo.com/home/) is controversial. Many people hate the ads they put on your site or its other limitations, but it is one of the oldest and most reliable free web hosts. Your URL looks like http://www.geocities.com/you . They give you 15 MB webspace, file manager and editor, web-based Email, and statistics. The bandwidth limit is 3 GB/month, and the file size limit is 5 MB. You can upload several file types such as RealAudio, RealVideo, Flash, MP3, and Java, but other scripting is not supported.

Free web hosts are great for hosting a personal web site, but not recommended for a business site. If you're really serious about your business and want to establish your Internet presence, I highly recommend Host4Profit. They provide you with exactly what you need to develop a profitable Internet business at a very reasonable price. http://www.web-source.net/cgibin/t.cgi?l=h4p

## Selecting Your Web Page Host

When selecting a professional web host your first consideration should be the company. Check out their background. Talk to some of their customers and ask them if they've been satisfied with their service.

- How many customers do they serve?
- What is their uptime percentage?
- Do they require you to make payments in advance?
- Do they charge set up fees?
- How is their customer support? Test them.
- Do they offer fast connections?
- Do they offer shopping cart software to process your orders?
- Can you upgrade free of charge?

Web hosting prices vary greatly. When selecting your host, make sure you're getting exactly what you're paying for. Keep in mind, a lower monthly rate will not benefit you if your site is down a lot, slow, or customer service is poor.

## Criteria for selecting a host:

Selecting a professional web host is a very important decision. Make sure you do your homework and ensure the host you select offers exactly what you need.

- Your own domain name (www.yourname.com)
- Your own True POP email account name@yourdomain.com
- Fast, low overhead, Multi-T3 access
- Your own unrestricted cgi-bin
- Access to SSL Encryption for secure transactions
- Java, C, C++, Tcl support
- Autoresponders
- Password Protection for your files or directories
- At least 1 GIGABYTE (1024 MB) of Daily Transfer
- Design (and upload to) your site using Netscape or other HTML editing software
- Microsoft Frontpage (98) Server Extensions for those utilizing Frontpage

- Unlimited free access to your server via Telnet/FTP

- Online invoices, account tracking, and payment history to enable you to check your account balance, monthly invoices, past payments, etc.

- Complete daily server backup
- Easy access to your log files
- Statistics on visits to your site

## Internet as tool for Global access:

In 1998, John Chambers, then president of Cisco Systems (an Internet networking company) spoke about the Internet revolution:

The Internet will change how people live, work, play and learn. The Industrial Revolution brought people together with machines in factories, and the Internet revolution will bring together people with knowledge and information in virtual communities. And it will have every bit as much impact on society as the Industrial Revolution. It will promote globalization at an incredible pace. But instead of happening over 100 years, like the Industrial Revolution, it will happen over 100 years.

## Some characteristics of the Internet:

(1) Immediacy: right now, 24 hours a day (2) Ubiquity: Wherever you are (3) Transparency: everything is available (4) Relevancy: Directly relates to you, not to a mass market.

## Current Uses of Internet

The average user in the US spends 5.3 hours on-line a week. 43 percent of U.S. homes have Internet access in 2000 (compared to just 28 percent in 1998).

1. **Electronic Mail.** With an Internet email account, users can communicate with anyone else online, any place in the world, with no long distance fees. Email can also be used to join mailing lists, bulletin boards, or discussion groups that cover a huge variety of subjects. According to a 1999 study (the 1999 Consumer Technology Survey), email has replaced research as the leading reason given by people in the US for using the Internet. Approximately 48 percent of U.S. consumers said email was the primarily reason to go on-line, followed by research (28 percent).

2. **World Wide Web.** The World Wide Web is not a physical place, not a set of files, nor even a network of computers. The heart of the WEB lies in the protocols (common communication rules and languages) that define its use. The WWW uses hypertext transfer protocols (http) to transport files from one place to another.

What makes the www unique is the striking appearance of the information when it gets to your computer. In addition to text, the web presents color, images, sounds and video. This, combined with its ease of use, makes the web the most popular aspect of the Internet for a large majority of users.

One 1995 estimate said that there were 27,000 web sites and that the number were doubling daily. This growth rate would be difficult to maintain, but it is true that the web is the single fastest growing neighborhood on the Internet.

Media scholar Richard Campbell writes: "By the early 1990s, the world wide web had become the most frequently visited region of the Internet. Developed in the 1980s by software engineer Tim Berners-Lee, the Web was initially a text-only data-linking system that allowed computer-accessed information to associate with, or link to, other information no matter where it was on the Internet. Known as hypertext, this data-linking feature of the Web was a breakthrough for those attempting to use the Internet. Hypertext is a non-linear way of organizing information, allowing a user to click on a highlighted word, phrase, picture or icon and skip directly to other files related to that subject in other computer systems.

"By using standardized software, today users can navigate through most features of the Internet, including text data such as email, photo-image files, and video and audio clips. HTML (HyperTextMarkup Language), the written code that creates Web pages and links, is a language

that all computers can read, so computers with varying operating systems (such as Windows and Macintosh) can communicate easily. JAVA, a HTML compatible language developed by Sun Microsystems in the mid 1990s, is also universally readable by computers and allows small interactive programs to run on Web pages, creating moving graphic elements such as three-dimensional animations and menus....."

Uses of the World Wide Web include: Research, Personal web sites , On line shopping , Shareware

3. **Threaded Conference**. Systems (USENET) or network news. Users enter messages and within a day or so, the messages are delivered to nearly every other USENET host for everyone to read. (Not synchronous).

- 4. On-Line Chat Rooms (Synchronous, Conversations/reaction)
- 5. Multi-User Dummies (M.U.D.s). Text-based VR ; Role playing games ; Same time
- 6. Streamed Broadcast (receiving, sending audio and video)
- 7. Internet telephone and video telephone.

## Questions:

- 1. What is objective of learning subject cyber crime & law?
- 2. What is cyber crime? Note down the profiles of cyber criminals and cyber crime victims
- 3. Explain the types of cyber crimes and examples associated with them
- 4. Write down the preventive steps that we have to take to protect yourself & your organization from being the victim of cyber crime
- 5. Write a note on evolution of computing system
- 6. What is cyberspace? What sort of problems we are facing due to emergence of cyberspace
- 7. What is difference between Law and Jurisprudence?
- 8. Write a note on Doctrinal approach, Consensual approach & real approach of handling and judging cases
- 9. What is cyber ethic? Note down ethics of cyber world
- 10. What is difference between jurisdiction and cyber jurisdiction
- 11. Write a note on hierarchy of courts by giving details with the power of respective courts
- 12. Write a note on different types of jurisdiction
- 13. Explain the term cyberspace and web space are they same
- 14. Write a note on web development & hosting agreement
- 15. Explain legal and technological significance of domain name
- 16. Write a note on Internet as tool for global access