EXPERIMENT NO. 1

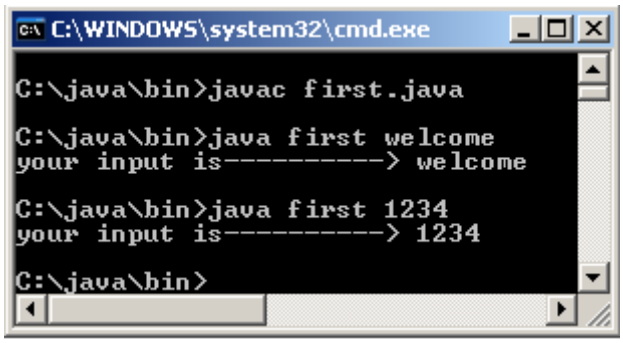
Aim : - Write a program to Input a String and display it on screen

Explanation :- This is a simple program in java to display strings.

Program :-

```
class first
    {
        public static void main(String str[])
          {
                String s=String.valueOf(str[0]);
                System.out.println("your input is----------> "+s);
        }
    }
```

Output:-



Viva -Voice Questions:

1. What do you mean by object oriented programming.
2. What is the difference between java and c++.
3. What is class.
4. What is object.

EXPERIMENT NO. 2

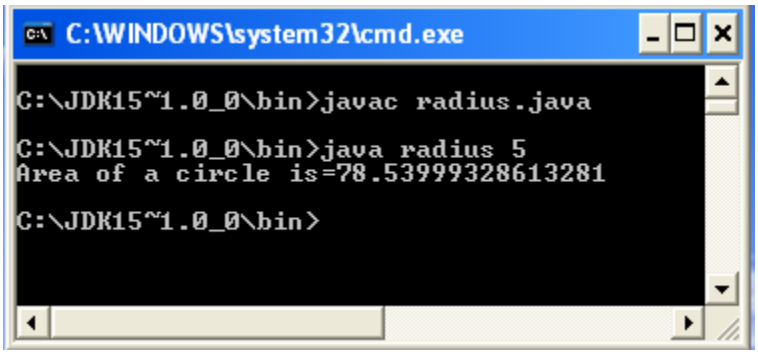
Aim :- Write a program to compute the area of a circle.

Explanation :-This program demonstrate the uses of datatypes and variables to compute area of a circle.

Program :-

```
class radius
        {
            public static void main(String str[])
                {
                        int r;
                        double a;
                        float  pi=3.1416f;
                        r=Integer.parseInt(str[0]);
                        a=pi*r*r;
                        System.out.println("Area of a circle is="+a);
                }
        }
```

Output :-



Viva -Voice Questions:

1. What is datatypes.
2. What is variable.
3. What is the difference between object and variable?
4. Why do I have to put an f after a floating point constant?

EXPERIMENT NO. 3

Aim -: Write a program to add two integer numbers using command line argument.

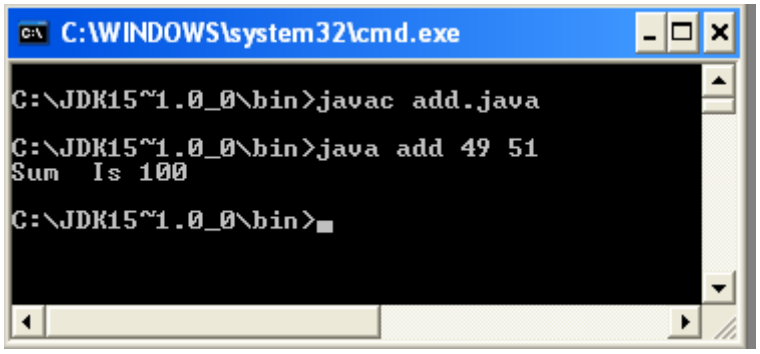
Explanation -: This program enable the user to add two integer numbers using command line

Program -:

```
class add
    {
        public static void main(String str[])
            {
                int a,b,c;
                a=Integer.parseInt(str[0]);
                b=Integer.parseInt(str[1]);
                c=a+b;
                System.out.println("Sum  Is =- " + c);
            }

    }
```

Output :-



Viva -Voice Questions:

1. What do you mean by command line argument programming.
2. What java uses compiler , interpreter or both.
3. Can I compile group of java files once?

EXPERIMENT NO. 4

Aim: - Write a program to check whether the given number is even or odd using if-else statements.

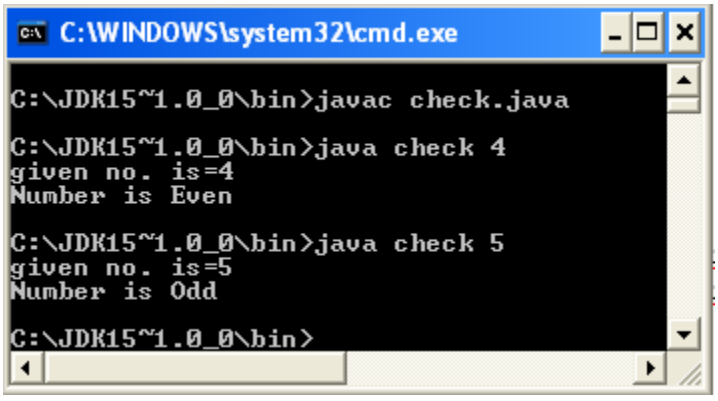
Explanation :-This program demonstrate the simple use of if else by checking the number using modulo operator.

Program :-

```
class check
        {
            public static void main(String str[])
                {
                        int a;
                        a=Integer.parseInt(str[0]);
                        if(0==a%2)
                           {

                                System.out.println("given no. is="+a);
                                System.out.println("Number is Even ");
                            }
                        else
                           {
                                System.out.println("given no. is="+a);
                                System.out.println("Number is Odd ");
                            }}   }
```

Output :-



Viva - Voice Questions:

1. What is reserve word and how many?.
2. What is the difference between division and modulo operator.
3. What is jvm
4. What is jdk

EXPERIMENT NO. 5

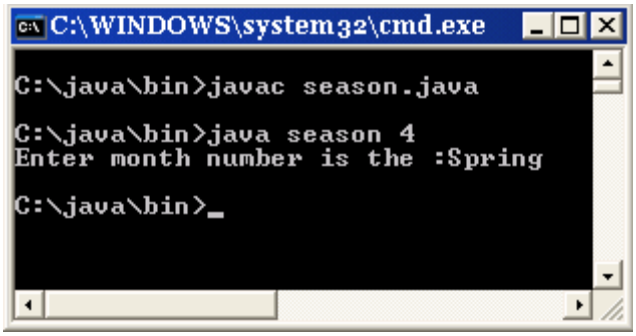
Aim :- Write a program to determine which season a particular month.

Explanation :-This program is uses the logical operator with ladder if else statement.

Program :-

```
class  season
        {
            public static void main(String str[])
                {int  a;
                        String s;
                        a=Integer.parseInt(str[0]);
                        if(a==12||a==1||a==2)
                                s=”Winter”;
                        else
                              if(a==3||a==4||a==5)
                                    s=”Spring”;
                               else
                                  if(a==6||a==7||a==8)
                                      s=”Summer”;
                                   else
                                        if(a==9||a==10||a==11)
                                          s=”Autom”;
                                        else
                                          s=”Bogus Month”;
                        System.out.println(“Enter month number is the :”+s)          }   }
```

Output :-



Viva -Voice Questions:

1. What is the difference between logical and bitwise operator.
2. What is byte code
3. What language is the Java compiler and JVM written in?

EXPERIMENT NO. 6

Aim :- Write a program to Display menu (1.Add, 2.Sub, 3.Mul , 4.Div) using switch statement.

Explanation :-This program describe the uses of switch statement with 4 case,when particular case value matches code related with that casewill be executed other wise default scase will be executed.

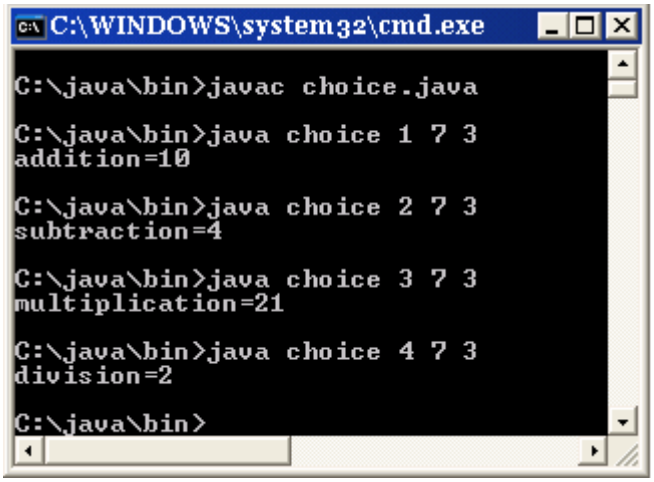
Program :-

```
class  choice
        {
                public static void main(String str[])
                 {
                        int  a,b,c,d,k=0;
                        a=Integer.parseInt(str[0]);
                        b=Integer.parseInt(str[1]);
                        c=Integer.parseInt(str[2]);

                 do
                  {
                         switch(a)
                                {
                                  case 1:
                                        {
                                                d=b+c;
                                                System.out.println("addition="+d);
                                                break;
                                        }
                                  case 2:
                                        {
                                              d=b-c;
                                             System.out.println("subtraction"+d);
                                              break;
                                        }
                                  case 3:
                                        {
                                                  d=b*c;
                                           System.out.println("multiplication="+d);
                                                  break;
                                        }
                                  case 4:
                                        {
                                                  d=b/c;
```

```
                                        System.out.println("division="+d);
                                          break;
                                    }
                                default : {
                                System.out.println("Enter correct choice");
                                          }
                                }
                                  k++;
                        }
                          while(k<=0);
                    }
              }
```

Output :-



Viva - Voice Questions :

1. What is the difference between if and switch statement.
2. What is break and what it do.
3. Is there any limit to the length of an identifier?.

EXPERIMENT NO. 7

Aim: - Write a program to find the factorial of a given number while statement.

Explanation :- While statement is entry controlled loop statement 1st it evaluate condition then body of the code is executed.

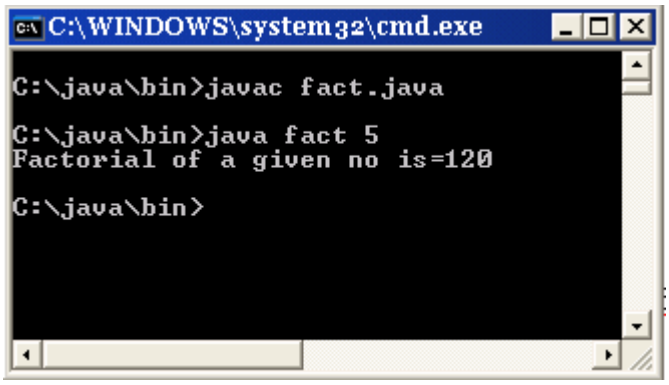
Program :-

```
class  fact
        {
                public static void main(String str[])
                 {
                        int  num,fac=1,i=1;
                        num=Integer.parseInt(str[0]);

                   while(num>=i)
                        {
                            fac=fac*i;
                                i++;
                          }
                        System.out.println("Factorial of a given no is="+fac);

                        }
          }
```

Output :-



Viva -Voice Questions :

1. What is the difference between while and do while loop.
2. What is the difference between break and continue statements.

EXPERIMENT NO. 8

Aim :- Write a program to reverse a 5digit number and calculate sum of its digit using for loop.

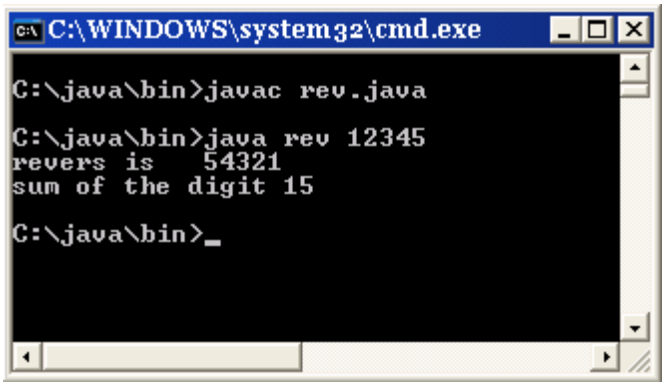
Explanation :- for statement is entry controlled loop statement 1st it evaluate condition then body of the code is executed in this we can reverse any integer number..

Program :-

```
class rev
        {
        public static void main(String str[])
          {
                int a,b,sum=0,rev=0;
                a=Integer.parseInt(str[0]);
        for(;a>0;)
                {
                 b=a%10;
                 rev=rev*10+b;
                 sum=sum+b;
                  a=a/10;
                 }

         System.out.println("revers is   "+rev);
          System.out.println("sum of the digit "+sum);
         }
    }
```

Output :-



Viva – Voice Questions :

1. What is the type casting.
2. How many types we can convert data

EXPERIMENT NO. 9

Aim: - Write a program to that use continue to print a triangular multiplication for 1 to 4.

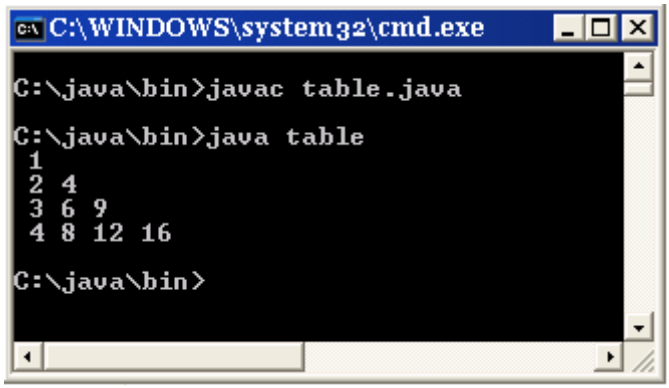
```
1
2 4
3 6 9
4 8  12  16
```

Explanation :- for statement is entry controlled loop statement 1st it evaluate condition then body of the code is executed. This is the nesting of for statement with continue label.

Program :-

```
class table
    {
      public static void main(String str[])
        {
           huk:
              for(int i=1;i<5;i++)
               { for(int j=1;j<5;j++)
                { if(j>i)
                        {
                        System.out.println();
                        continue huk; }
                        System.out.print(" "+i*j);
                } }
         System.out.println();
          }}
```

Output :-



Viva - Voice Questions :

1. What is the difference between continue and continue with label
2. What is the difference between break and break with label

EXPERIMENT NO. 10

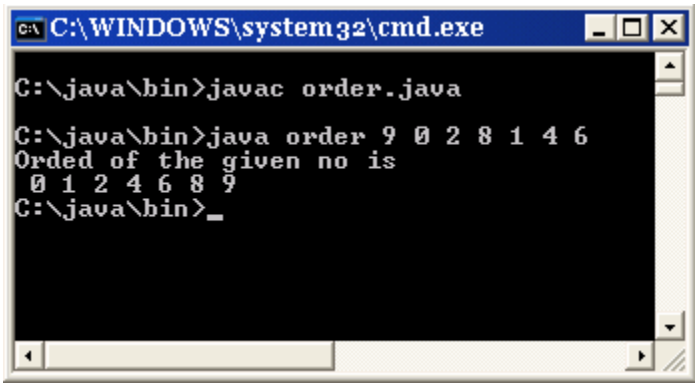
Aim :- Write a program to sort a list of 7 numbers in ascending order

Explanation :-This program demonstrate the uses of array, how to initialize and how to create memory for array elements.

Program :-

```
class order
    {
        public static void main(String str[])
          {
                int a[],n;
                a=new int[10];
                for(int i=0;i<=6;i++)
                  a[i]=Integer.parseInt(str[i]);
                for(int j=0;j<=6;j++)
                 {    for(int i=0;i<=6;i++)
                     {
                         if(a[j]<a[i])
                         {
                                 n=a[j];
                                 a[j]=a[i];
                                 a[i]=n;
                         }          }}
                System.out.println("Orded of the given no is ");
                for(int k=0;k<=6;k++)
                         System.out.print(" "+a[k]);
                }}
```

Output-:



Viva –Voice Questions :

1. How do I copy an array?
2. What is the difference between simple variable and array.
3. How array in java is differ from c/c++

EXPERIMENT NO. 11

Aim :- Write a program to generate a pattern using 2D array.

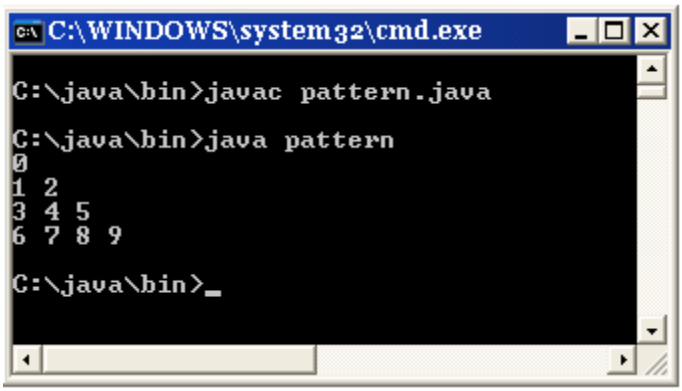
0
1 2
3 4 5
6 7 8 9

Explanation :- This program demonstrate the uses of 2D array, how to initialize and how to create memory for array elements.

Program :-

```
class pattern
    {public static void main(String str[])
        {int toD[][]=new int[4][];
            toD[0]=new int[1];
            toD[1]=new int[2];
            toD[2]=new int[3];
            toD[3]=new int[4];
            int i,j,k=0;
            for(i=0;i<4;i++)
            for(j=0;j<i+1;j++)
              {
                    toD[i][j]=k;
                    k++;
               }
            for(i=0;i<4;i++)
              {
               for(j=0;j<i+1;j++)
                    System.out.print(toD[i][j]+" ");
                    System.out.println();
              }}}
```

Output-:



Viva – Voice Questions

1. How can we create memory for 4D array.
2. How do you deallocate an array in Java?