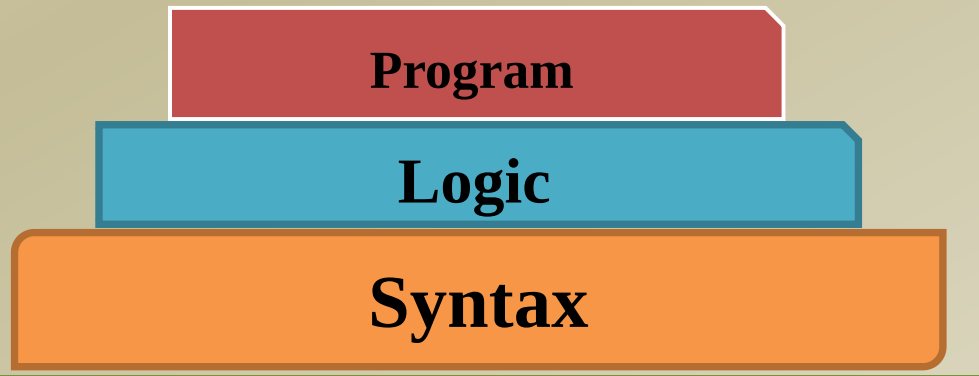
Code at Random (OPC) PVT. LTD.

For Loop Based Programming



Problems Set 1

1. WAP to print all even numbers from *1* to *n* using for loop, when *n* will be given by the user.

   Explanation: If n is 10 then the result will be the even numbers which lie between 1 and 10 i.e., ***2,4,6,8,10***

2. WAP to print all odd numbers from *a* to *b* using for loop, when *a* and *b* will be given by the user.

   Explanation: If a is 3 and b is 10 then the result will be the odd numbers which lie between 3 and 10 i.e., ***3,5,7,9***

3. WAP to input a number & print its well formatted table.

   Explanation: If the number is 5 then the result will be the well formatted table of 5 i.e.,

   5 x 1 = 5

   5 x 2 = 10

   .....

   5 x 10 = 50

Solution of Problem Set 1

1. WAP to print all even numbers from *1* to *n*

```
import java.util.*;
   class  even_numbers{
     public static void main(String Args[]) {
        int i,n;
        Scanner sc= new Scanner(System.in);
        System.out.println("Enter  a number");
        n= sc.nextInt();
        for(i=1; i<=n; i++) {
            if(i%2==0)
             System.out.println(i);
         }
   }
}
```

2. WAP to print all odd numbers from *a* to *b*

```
import java.util.*;
class  odd_numbers{
   public static void main(String Args[]) {
        int i,a,b;
        Scanner sc= new Scanner(System.in);
        System.out.println("Enter lower limit and upper limit");
        a= sc.nextInt();
        b= sc.nextInt();
        for(i=a; i<=b; i++)
         {
            if(i%2!=0)
             System.out.println(i);
          }
    }
}
```

Solution of Problem Set 1

3. WAP to input a number & print its well formatted table.

```
import java.util.*;
    class table
   {
    public static void main(String Args[])
    {
        int i,n;
        Scanner sc= new Scanner(System.in);
        System.out.println("Enter a number of which table has to printed");
        n= sc.nextInt();
        for(i=1;i<=10;i++)
        {
            System.out.println(n+" * "+i+" = "+(i*n));
        }
    }

}
```

Problems Set 2

1. WAP to print the sum of first *n* natural numbers.

   Explanation: If n is 10 then the result will be the sum of natural numbers from 1 to 10 i.e., ***1+2+3+4+5+6+7+8+9+10 = 55***

2. WAP to input a number n & print its factorial.

   Explanation: If n is 5 then the factorial of 5 is the product of the natural numbers from 1 to 5 i.e., ***1*2*3*4*5 = 120***

3. WAP to input a number n & print all its factors.

   Explanation: If the number is 10 then the result will be its list of factors(which are divisible by that number) i.e., ***1, 2, 5, 10***

4. WAP to input a number & print its odd factors.

   Explanation: If the number is 10 then the result will be its list of odd factors(which are divisible by that number and are odd) i.e., ***1, 5***

Solution of Problem Set 2

1. WAP to print the sum of first *n* natural numbers.

```
import java.util.*;
class sum
{
   public static void main(String Args[])
   {
      int i,n,s=0;
      Scanner sc= new Scanner(System.in);
      System.out.println("Enter a number");
      n= sc.nextInt();
      for(i=1;i<=n;i++)
      {
         s=s+i;
      }
      System.out.println("Sum is:"+ s);

   }

}
```

2. WAP to input a number n & print its factorial.

```
import java.util.*;
class factorial
{
   public static void main(String Args[])
   {
      int i,n,f=1;
      Scanner sc= new Scanner(System.in);
      System.out.println("Enter a number");
      n= sc.nextInt();
      for(i=1;i<=n;i++)
      {
         f=f*i;
      }
      System.out.println("Factorial is:"+ f);

   }

}
```

Solution of Problem Set 2

3. WAP to input a number n & print all its factors.

```
import java.util.*;
class factors
{
    public static void main(String Args[])
    {
     int n,i;
     Scanner sc= new Scanner(System.in);
     System.out.println("Enter a number");
     n= sc.nextInt();
     for(i=1;i<=n;i++)
     {
        if(n%i==0)
        {
            System.out.print(i+" ");
        }
       }
    }
}
```

4. WAP to input a number & print its odd factors.

```
import java. util. *;

class odd_factors
{
  public static void main(String Args[])
  {
    int i,n,flag=0;
    Scanner sc = new Scanner(System.in);
    System.out.println("Enter a number");
    n=sc.nextInt();
    for(i=1;i<=n;i++)
    {
     if(n%i==0 && i%2!=0)
     {
         System.out.println(i+" ");
   }

  }
}
}
```