

1.program Armstrong

```
import java.util.*;

public class arm
{
    public static void main(String[] args)
    {
        int n, rev=0, num, rem;
        Scanner sc=new Scanner(System.in);
        System.out.print("Enter number: ");
        n=sc.nextInt();
        num=n;
        while (num>0)
        {
            rem=num%10;
            rev=rev+(rem*rem*rem);
            num=num/10;
        }
        if(rev==n)
        {
            System.out.println("It is an Armstrong number.");
        }
        else
        {
            System.out.println("It is not an Armstrong number.");
        }
    }
}
```

2.program armstrong1

```
import java.util.*;

public class arms
{
    public static void main(String[] args)
    {
        System.out.print("Armstrong numbers from 100 to 999 are: ");
        for(int i=100; i<1000; i++)
        {
            int n=i, rev=0, rem=0;

            while(n>0)
            {
                rem=n%10;
                rev=rev+(rem*rem*rem);
                n=n/10;
            }
            if(rev==i)
            {
                System.out.print(i+" ");
            }
        }
    }
}
```

3.program simple and compound interest

```
import java.util.*;

class simcom
{
    public static void main (String argu[ ])
    {
```

```

double pr, rate, t, sim,com;
Scanner sc=new Scanner (System. in);
System.out.println("Enter the amount:");
pr=sc.nextDouble();
System. out. println("Enter the No.of years:");
t=sc.nextDouble();
System. out. println("Enter the Rate of interest");
rate=sc.nextDouble();
sim=(pr * t * rate)/100;
com=pr * Math.pow(1.0+rate/100.0,t) - pr;
System.out.println("Simple Interest="+sim);
System.out. println("Compound Interest="+com);
}
}

```

4.program marks

```

import java.util .*;
public class mks
{
    public static void main (String args[ ])
    {
        Scanner sc=new Scanner (System. in);
        float sub1,sub2,sub3;
        System.out.println("Enter First Subject marks:");
        sub1=sc.nextInt();
        System.out.println("Enter Second Subject marks:");
        sub2=sc.nextInt();
        System.out.println("Enter Third Subject marks:");
        sub3=sc.nextInt();

        if(sub1>60&& sub2>60 && sub3>60)
        {

```

```

System.out.println("Passes");
}
else if((sub1>60 && sub2>60) || (sub2>60 && sub3>60) || (sub1>60 && sub3>60))
{
System.out.println("Promoted");
}
else
{
System.out.println("Failed");
}
}

```

5.program income tax

```

import java.util.*;
class tax
{
public static void main(String args[])
{
double income,tax=0;
Scanner sc=new Scanner(System.in);
System.out.print("Enter CTC:Rs.");
income=sc.nextDouble();
if(income<=180000)
{
System.out.println("No Tax");
}
else if(income<=300000)
{
tax=income*0.10;
System.out.println("Tax:Rs."+tax);
}
}

```

```

else if(income<=500000)
{
tax=income*0.20;
System.out.println("Tax:Rs."+tax);
}
else if(income<=1000000)
{
tax=income*0.30;
System.out.println("Tax:Rs."+tax);
}
else
{
System.out.println("Enter valid CTC");
}
}
}
}

```

6.program CUI

```

import java.util.*;

public class cui
{
public static void main(String[] args)
{
Scanner sc=new Scanner(System.in);
int totalAttempts=3, temp=totalAttempts;
String uname="Glenn";

String pass="password";
System.out.println("You Have total "+totalAttempts+" Attempts");

```

```

for (int i=1;i<=temp;i++)
{
System.out.println("Enter Your UserName : ");
String lname=sc.nextLine();
System.out.println("Enter Your Password: ");
String pass1=sc.nextLine();
if(lname.equals (lname) && pass.equals(pass1))
{
System.out.println("Welcome "+lname+" you have successfully logged In ");
break;
}
else
{
System.out.println("Incorrect Login");
totalAttempts--;
System.out.println("You have now "+totalAttempts+" Attempts");
}
if (totalAttempts == 0)
{
System.out.println("Maximum number of attempts exceeded");
}
}
}
}
}

```

7.program array

```

import java.util.*;
public class array
{
public static void main(String[] args)

```

```
{
Scanner sc = new Scanner(System.in);
int i, j=0, flag=0, x;
System.out.println("Enter array elements: ");
int Arr[] = new int[15];
for(i = 0; i < Arr.Length; i++)
Arr[i] = sc.nextInt();
System.out.println("Enter the element you want to find: ");
x = sc.nextInt();
for(j = 0; j < Arr.Length; j++)
{
    if(Arr[j] == x)
    {
        flag = 1;
        break;
    }
    else
    {
        flag = 0;
    }
}
if(flag == 1)
{
    System.out.println("Element found at position: " + (j + 1));
}
else
{
    System.out.println("Element not found");
}
}
```

8. program bubble sort

```
class Demo {  
    static void bubbleSort(int[] arr) {  
        int n = arr.length;  
        int temp = 0;  
        for(int i=0; i < n; i++){  
            for(int j=1; j < (n-i); j++){  
                if(arr[j-1] > arr[j]){  
                    //swap elements  
                    temp = arr[j-1];  
                    arr[j-1] = arr[j];  
                    arr[j] = temp;  
                }  
            }  
        }  
    }  
  
    public static void main(String[] args) {  
        int arr[] = {5,12,14,6,78,19,1,23,26,35,37,7,52,86,47};  
  
        System.out.println("Array Before Bubble Sort");  
        for(int i=0; i < arr.length; i++){  
            System.out.print(arr[i] + " ");  
        }  
        System.out.println();  
  
        bubbleSort(arr); //sorting array elements using bubble sort  
  
        System.out.println("Array After Bubble Sort");  
        for(int i=0; i < arr.length; i++){
```



```
        System.out.print(arr[i] + " ");  
    }  
  
    }  
}  
  
9.
```