**JAVA BASIC PROGRAMS**

**1.Fibonacci series in java:**

import java.io.\*;

import java.util.Scanner;

public class Fibonacci{

public static void main(String args[]){

int a=0,b=1,temp=0;

Scanner sc=new Scanner(System.in);

System.out.println("Enter the n value:");

int n=sc.nextInt();

System.out.println(a);

System.out.println(b);

for(int i=0;i<n-1;i++){

temp=a+b;

System.out.println(temp);

a=b;

b=temp;

}}}

**2.Prime Number Program in java:**

import java.io.\*;

import java.util.Scanner;

public class Primenumber{

public static void main(String args[]){

int m=0,flag=0;

Scanner sc=new Scanner(System.in);

System.out.println("Enter the number to check prime or not:");

int n=sc.nextInt();

m=n/2;

if(n==0||n==1){

System.out.println(n+"is not a prime number");}

else{

for(int i=2;i<=m;i++){

if(n%i==0){

System.out.println(n+"is not a prime number");

flag=1;

break;}}

if(flag==0){

System.out.println(n+"is a prime number");

}}}}

**3.Palindrome Program in java:**

import java.io.\*;

import java.util.Scanner;

public class Palindrome{

public static void main(String args[]){

Scanner sc=new Scanner(System.in);

System.out.println("Enter the number:");

int s=sc.nextInt();

int s1=s;

int rem,a=0;

for(s=s;s!=0;s=s/10){

rem=s%10;

a=(a\*10)+rem;}

System.out.println("After palindrome:"+a);

if(s1=a){System.out.println("The Number is palindrome");}

else{System.out.println("The Number is not palindrome");}}}

**4.Factorial Program in java:**

import java.io.\*;

import java.util.Scanner;

public class Factorial{

public static void main(String args[]){

int fact=1;

Scanner sc=new Scanner(System.in);

System.out.println("Enter the Number:");

int s=sc.nextInt();

for(int i=1;i<=s;i++){

fact=fact\*i;}

System.out.println("The factorial is "+fact);}}

**5.Armstrong Number in java:**

import java.io.\*;

import java.util.Scanner;

public class Armstrong{

public static void main(String args[]){

int rem,sum=0;

Scanner sc=new Scanner(System.in);

System.out.println("Enter the Number:");

int num=sc.nextInt();

int s=num;

for(s=s;s!=0;s=s/10){

rem=s%10;

sum=sum+(rem\*rem\*rem);}

if(num==sum){System.out.println("Armstrong");}

else{System.out.println("Not a armstrong");}}}

**6.How to Generate Random Number in java:**

import java.io.\*;

import java.util.Scanner;

import java.util.Random;

public class Randomnumber{

public static void main(String args[]){

Scanner sc=new Scanner(System.in);

System.out.println("Enter the range");

int max=sc.nextInt();

int min=sc.nextInt();

System.out.println("The random number is"+ generateRandomNumber(min,max));}

static int generateRandomNumber(int min,int max){

int s=(min+(int)(Math.random()\*((max-min)+1)));

return s;}}

**7.How to Print Pattern in java(Star,Number):**

STAR:

import java.io.\*;

import java.util.Scanner;

public class Pattern{

public static void main(String args[]){

int rem,sum=0;

Scanner sc=new Scanner(System.in);

System.out.println("Enter the Number of rows:");

int num=sc.nextInt();

for(int i=0;i<num;i++){

for(int j=0;j<=i;j++){

System.out.print("\*");}

System.out.println();}}}

NUMBER:

import java.io.\*;

import java.util.Scanner;

public class Pattern{

public static void main(String args[]){

int rem,sum=0;

Scanner sc=new Scanner(System.in);

System.out.println("Enter the Number of rows:");

int num=sc.nextInt();

for(int i=0;i<num;i++){

for(int j=0;j<=i;j++){

System.out.print(j);}

System.out.println();}}}

**8.How to compare two objects in java:**

import java.io.\*;

import java.util.Scanner;

public class Compareobject{

public static void main(String args[]){

String s1=new String("HELLO");

String s2=new String("HELLO");

if(s1.equals(s2)){

System.out.println("The two objects are equal");}

else{

System.out.println("The two objects are not equal");}}}

**9.How to create object in java:**

import java.io.\*;

import java.util.Scanner;

public class Objectcreation{

public static void main(String args[]){

Addition add = new Addition();

add.Add(10,20);

}}

class Addition{

void Add(int a,int b){

int c=a+b;

System.out.println("The sum of two numbers is"+c);}}

**10.String Palindrome:**

import java.io.\*;

import java.util.Scanner;

public class Stringpalindrome{

public static void main(String args[]){

Scanner sc=new Scanner(System.in);

System.out.println("Enter the String:");

String s=sc.next();

String revs="";

int slen=s.length();

for(int i=(slen-1);i>=0;--i){

revs=revs+ s.charAt(i);}

if(s.equals(revs)){

System.out.println("The string is palindrome");}

else{

System.out.println("The string is not palindrome");}}}

**11.How to print ASCII value in java:**

import java.io.\*;

import java.util.Scanner;

public class Asciivalue{

public static void main(String args[]){

Scanner sc=new Scanner(System.in);

System.out.println("Enter the Letter:");

char s=sc.next().charAt(0);

int asciis=s;

System.out.println("The ASCII value of "+s+" is "+asciis);}}

**12.How to reverse a number in java:**

import java.io.\*;

import java.util.Scanner;

public class Reversenumber{

public static void main(String args[]){

Scanner sc=new Scanner(System.in);

System.out.println("Enter the number:");

int s=sc.nextInt();

int rem,a=0;

for(s=s;s!=0;s=s/10){

rem=s%10;

a=(a\*10)+rem;}

System.out.println("The reverse of a number is"+a);}}

**13.Java program to find square root of a number without sqrt method:**

import java.io.\*;

import java.util.Scanner;

public class Squareroot{

public static void main(String args[]){

Scanner sc=new Scanner(System.in);

System.out.println("Enter the number:");

int s=sc.nextInt();

System.out.println("The Square root of "+s+" is "+squareRoot(s));}

public static double squareRoot(int num){

double t;

double sqrt=num/2;

do{

t=sqrt;

sqrt=(t+(num/t))/2;}

while((t-sqrt)!=0);

return sqrt;}}

**14.Java program to display odd numbers from 1 to 100:**

import java.io.\*;

public class Oddnumber{

public static void main(String args[]){

for(int i=1;i<=100;i++){

if(i%2==0){continue;}

else{System.out.println(i);}}}}

**15.Java program to display even numbers from 1 to 100:**

import java.io.\*;

public class Evennumber{

public static void main(String args[]){

for(int i=1;i<=100;i++){

if(i%2==0){System.out.println(i);}

else{continue;}}}}

**16.Java program to find largest of three numbers:**

import java.io.\*;

import java.util.Scanner;

public class Largestnumber{

public static void main(String args[]){

Scanner sc=new Scanner(System.in);

System.out.println("Enter the Three number:");

int s1=sc.nextInt();

int s2=sc.nextInt();

int s3=sc.nextInt();

if(s1>s2&&s1>s3){System.out.println("the greatest number is "+s1);}

else if(s2>s3){System.out.println("the greatest number is "+s2);}

else{System.out.println("the greatest number is "+s3);}}}

**17.Java program to find smallest of three numbers using ternary operator:**

import java.io.\*;

import java.util.Scanner;

public class Smallestnumber{

public static void main(String args[]){

Scanner sc=new Scanner(System.in);

System.out.println("Enter the Three number:");

int s1=sc.nextInt();

int s2=sc.nextInt();

int s3=sc.nextInt();

int res1=(s1<s2)?s1:s2;

int res2=(res1<s3)?s1:s3;

System.out.println("The Smallest of three numbers is "+res2);}}

**18.Java program tp print the elements of the array:**

import java.io.\*;

import java.util.Scanner;

public class Arrayelements{

public static void main(String args[]){

Scanner sc=new Scanner(System.in);

System.out.println("Enter the n value:");

int n=sc.nextInt();

int[] arr=new int[10];

System.out.println("Enter the elements:");

for(int i=0;i<n;i++){

arr[i]=sc.nextInt();}

System.out.println("Array elements are:");

for(int i=0;i<n;i++){

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

**19.Java program to print the Du[plicate elements of the array:**

import java.io.\*;

import java.util.Scanner;

public class Duplicateelements{

public static void main(String args[]){

Scanner sc=new Scanner(System.in);

System.out.println("Enter the n value:");

int n=sc.nextInt();

int[] arr=new int[10];

System.out.println("Enter the elements:");

for(int i=0;i<n;i++){

arr[i]=sc.nextInt();}

System.out.println("The Duplicate elements are:");

for(int i=0;i<n;i++){

for(int j=i+1;j<n;j++){

if(arr[i]==arr[j]){

System.out.println(arr[i]+",");}}}}}

**20.Java program to remove duplicate element in an array:**

import java.io.\*;

import java.util.Scanner;

public class Removeduplicate{

public static int remove(int arr[], int n){

if (n==0 || n==1){

return n;}

int[] temp = new int[n];

int j = 0;

for (int i=0; i<n-1; i++){

if (arr[i] != arr[i+1]){

temp[j++] = arr[i];}}

temp[j++] = arr[n-1];

for (int i=0; i<j; i++){

arr[i] = temp[i];}

return j;}

public static void main (String[] args){

Scanner sc=new Scanner(System.in);

System.out.println("Enter the n value:");

int n=sc.nextInt();

int[] arr=new int[10];

System.out.println("Enter the elements:");

for(int i=0;i<n;i++){

arr[i]=sc.nextInt();}

int length = arr.length;

length = remove(arr, length);

for (int i=0; i<length; i++)

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

**21.Java program to print the sum of all the items of the array:**

import java.io.\*;

import java.util.Scanner;

public class Sumofarray{

public static void main(String args[]){

Scanner sc=new Scanner(System.in);

System.out.println("Enter the n value:");

int n=sc.nextInt();

int[] arr=new int[10];

int sum=0;

System.out.println("Enter the elements:");

for(int i=0;i<n;i++){

arr[i]=sc.nextInt();}

for(int i=0;i<n;i++){

sum=sum+arr[i];}

System.out.println("The Sum of the elements are:"+sum);}}

**22.How to sort an array in java:**

import java.io.\*;

import java.util.Scanner;

public class Sortarray{

public static void main(String[] args){

Scanner sc=new Scanner(System.in);

System.out.println("Enter the n value:");

int n=sc.nextInt();

int[] arr=new int[10];

System.out.println("Enter the elements:");

for(int i=0;i<n;i++){

arr[i]=sc.nextInt();}

System.out.println("Array elements after sorting:");

for (int i = 0; i < arr.length; i++){

for (int j = i + 1; j < arr.length; j++){

int tmp = 0;

if (arr[i] > arr[j]){

tmp = arr[i];

arr[i] = arr[j];

arr[j] = tmp;}}

System.out.println(arr[i]);}}}

**23.Java program to print the elements of the array in reverse order:**

import java.io.\*;

import java.util.Scanner;

public class Reversearray {

public static void main(String[] args) {

Scanner sc=new Scanner(System.in);

System.out.println("Enter the n value:");

int n=sc.nextInt();

int[] arr=new int[10];

System.out.println("Enter the elements:");

for(int i=0;i<n;i++){

arr[i]=sc.nextInt();}

System.out.println("Array in reverse order: ");

for (int i = arr.length-1; i >= 0; i--) {

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

**24.Linear search in java:**

import java.io.\*;

import java.util.Scanner;

public class Linearsearch{

public static int Search(int[] arr, int key){

for(int i=0;i<arr.length;i++){

if(arr[i] == key){

return i;}}

return -1;}

public static void main(String args[]){

Scanner sc=new Scanner(System.in);

System.out.println("Enter the n value:");

int n=sc.nextInt();

int[] arr1=new int[10];

System.out.println("Enter the elements:");

for(int i=0;i<n;i++){

arr1[i]=sc.nextInt();}

System.out.println(“Enter the element to search:”);

Key=sc.nextInt();

System.out.println(key+" is found at index: "+Search(arr1, key));}}

**25.Binary search in java:**

import java.io.\*;

import java.util.Scanner;

class Binarysearch{

public static void Search(int arr[], int first, int last, int key){

int mid = (first + last)/2;

while( first <= last ){

if ( arr[mid] < key ){

first = mid + 1;}

else if ( arr[mid] == key ){

System.out.println("Element is found at index: " + mid);

break;}

else{

last = mid - 1;}

mid = (first + last)/2;}

if ( first > last ){

System.out.println("Element is not found!");}}

public static void main(String args[]){

Scanner sc=new Scanner(System.in);

System.out.println("Enter the n value:");

int n=sc.nextInt();

int[] arr1=new int[10];

System.out.println("Enter the elements:");

for(int i=0;i<n;i++){

arr1[i]=sc.nextInt();}

System.out.println(“Enter the element to search:”);

key=sc.nextInt();

int last=arr.length-1;

Search(arr,0,last,key);}}

**26.Java program to find reverse of a string:**

import java.io.\*;

import java.util.Scanner;

public class Stringpalindrome{

public static void main(String args[]){

Scanner sc=new Scanner(System.in);

System.out.println("Enter the String:");

String s=sc.next();

String revs="";

int slen=s.length();

for(int i=(slen-1);i>=0;--i){

revs=revs+ s.charAt(i);}

System.out.println("Reverse of a string is "+rev);}}