1)simple array program.

import java.util.\*;

public class Main

{

public static void main(String[] args)

{

int n,i;

Scanner sc=new Scanner(System.in);

System.out.println("Enter array size");

n=sc.nextInt();

int a[]=new int[n];

System.out.println("Enter" +n+ "Element");

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

{

a[i]=sc.nextInt();

}

System.out.println(" Array Element are");

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

{

System.out.println(" "+a[i]);

}

}

}

2)sum of Array element.

import java.util.\*;

public class Main

{

public static void main(String[] args)

{

int n,i,sum=0;

Scanner sc=new Scanner(System.in);

System.out.println("Enter array size");

n=sc.nextInt();

int a[]=new int[n];

System.out.println("Enter" +n+ "Element");

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

{

a[i]=sc.nextInt();

sum=sum+a[i];

}

System.out.println(" Array Element are");

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

{

System.out.println(a[i]+"\t");

}

double avg=sum/n;

System.out.println("\n Sum="+sum+"\nAverage="+avg);

}

}

3)To find min and max number.

import java.util.\*;

public class Main

{

public static void main(String[] args)

{

int n,i,min,max;

Scanner sc=new Scanner(System.in);

System.out.println("Enter array size");

n=sc.nextInt();

int a[]=new int[n];

System.out.println("Enter" +n+ "Element");

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

{

a[i]=sc.nextInt();

}

System.out.println("\nArray Element are");

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

{

System.out.println(a[i]+"\t");

}

max=min=a[0];

for(i=1;i<n;i++)

{

if(a[i]>max)

max=a[i];

if(a[i]<min)

min=a[i];

}

System.out.println("\n max="+max+"\n min"+min);

}

}

4) to find prime no of an array.

import java.util.\*;

public class Main

{

public static void main(String[] args)

{

int n,i,j,flag=0,r;

Scanner sc=new Scanner(System.in);

System.out.println("Enter array size");

n=sc.nextInt();

int a[]=new int[n];

System.out.println("Enter" +n+ "Element");

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

{

a[i]=sc.nextInt();

}

System.out.println("\nArray Element are");

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

{

System.out.println(a[i]+"\t");

}

System.out.println("\n\nprime number from of an array");

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

{

r=a[i];flag=0;

for(j=2;j<=(r/2);j++)

{

if(r%j==0)

{

flag=1;

break;

}

}

if(flag==0)

{

System.out.println(" "+a[i]);

}

}

}

}

5) perfect number of an array.

import java.util.\*;

public class Main

{

public static void main(String[] args)

{

int n,i,j,sum=0,r;

Scanner sc=new Scanner(System.in);

System.out.println("Enter array size");

n=sc.nextInt();

int a[]=new int[n];

System.out.println("Enter" +n+ "Element");

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

{

a[i]=sc.nextInt();

}

System.out.println("\nArray Element are");

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

{

System.out.print(a[i]+"\t");

}

System.out.println("\n\n perfect number from of an array");

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

{

r=a[i];

sum=0;

for(j=1;j<=(r/2);j++)

{

if(r%j==0)

{

sum=sum+j;

}

}

if(sum==r)

{

System.out.println(" "+a[i]);

}

}

}

}

6) pronic number in array.

import java.util.\*;

public class Main

{

public static void main(String[] args)

{

int n,i,j,r,flag=0;

Scanner sc=new Scanner(System.in);

System.out.println("Enter array size");

n=sc.nextInt();

int a[]=new int[n];

System.out.println("Enter" +n+ "Element");

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

{

a[i]=sc.nextInt();

}

System.out.println("\nArray Element are");

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

{

System.out.print(a[i]+"\t");

}

System.out.println("\n\n pronic number from of an array");

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

{

r=a[i];flag=0;

for(j=1;j<=(r/2);j++)

{

if((j\*(j+1))==r)

{

flag=1;

break;

}

}

if(flag==1)

{

System.out.println(" "+a[i]);

}

}

}

}

7) sum of even number of an array.

import java.util.\*;

public class Main

{

public static void main(String[] args)

{

int []arr=new int[10];

Scanner sc=new Scanner(System.in);

System.out.println("Enter values of array");

for(int i=0;i<10;i++)

{

arr[i]=sc.nextInt();

}

System.out.println("sum of values of even number");

int Sum=0;

for(int i=0;i<10;i=i+2)

Sum= Sum+arr[i];

{

System.out.println("sum="+Sum);

}

}

}

8) sum of odd number of an array.

import java.util.\*;

public class Main

{

public static void main(String[] args)

{

int []arr=new int[10];

Scanner sc=new Scanner(System.in);

System.out.println("Enter values of array");

for(int i=0;i<10;i++)

{

arr[i]=sc.nextInt();

}

System.out.println("sum of values of odd number");

int Sum=0;

for(int i=1;i<10;i=i+2)

Sum= Sum+arr[i];

{

System.out.println("sum="+Sum);

}

}

}

9)Reverse number in array.

import java.util.\*;

public class Main

{

public static void main(String[] args)

{

int []arr=new int[10];

Scanner sc=new Scanner(System.in);

System.out.println("Enter values of array");

for(int i=0;i<10;i++)

{

arr[i]=sc.nextInt();

}

System.out.println("Display reverse Array");

for(int i=9;i>0;i--)

{

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

}

}

}

10) Linear search.

import java.util.\*;

public class Main

{

public static void main(String[] args)

{

int n;

int key=20;

int flag=0;

Scanner sc=new Scanner(System.in);

System.out.println("Enter length of array");

n=sc.nextInt();

int[]arr=new int[n];

System.out.println("Enter values of array:");

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

{

arr[i]=sc.nextInt();

}

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

{

if(key==arr[i])

{

flag=1;

System.out.println("element found");

break;

}

}

if(flag==0)

{

System.out.println("Element not found");

}

}

}

11)pailndrome no.

import java.util.\*;

public class Main

{

public static void main(String[] args)

{

int n,i,j,n1,sum=0,g;

Scanner sc=new Scanner(System.in);

System.out.println("Enter array size");

n=sc.nextInt();

int a[]=new int[n];

System.out.println("Enter" +n+ "Element");

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

{

a[i]=sc.nextInt();

}

System.out.println("\nArray Element are");

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

{

System.out.print(a[i]+"\t");

}

System.out.println("\n\n pailndrome number from of an array");

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

{

n1=a[i];

sum=0;

while(n1>0)

{

g=n1%10;

n1=n1/10;

sum=(sum\*10)+g;

}

if(sum==a[i])

{

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

}

}

}

}

12)Magic number

import java.util.\*;

public class Main

{

public static void main(String[] args)

{

int n,n1,i,j,sum=0;

Scanner sc=new Scanner(System.in);

System.out.println("Enter array size");

n=sc.nextInt();

int a[]=new int[n];

System.out.println("Enter" +n+ "Element");

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

{

a[i]=sc.nextInt();

}

System.out.println("\nArray Element are");

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

{

System.out.print(a[i]+"\t");

}

System.out.println("\n\n magic number from of an array");

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

{

n=a[i];

sum=0;

{

while(n>0)

{

n1=n%10;

n=n/10;

sum=sum+n1;

}

n=sum;

}

if(n==1)

{

System.out.println(" "+a[i]);

}

}

}

}

13)Alternate number.

import java.util.\*;

public class Main

{

public static void main(String[] args)

{

int n,i,j,r,flag=0;

Scanner sc=new Scanner(System.in);

System.out.println("Enter array size");

n=sc.nextInt();

int a[]=new int[n];

System.out.println("Enter" +n+ "Element");

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

{

a[i]=sc.nextInt();

}

System.out.println("\nArray Element are");

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

{

System.out.print(a[i]+"\t");

}

System.out.println("\n\n Alternate number from of an array");

for(i=0;i<n;i=i+2)

{

System.out.print(a[i]+"\t");

}

}

}

14) Array size even.

import java.util.\*;

public class Main

{

public static void main(String[] args)

{

int n,i,temp;

Scanner sc=new Scanner(System.in);

System.out.println("Enter array size");

n=sc.nextInt();

int a[]=new int[n];

if(n%2==0)

{

System.out.println("Enter" +n+ "Element");

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

{

a[i]=sc.nextInt();

}

System.out.println("\nArray Element are");

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

{

System.out.print(a[i]+"\t");

}

System.out.println("\n\n array size even");

for(i=0;i<n;i=i+2)

{

temp=a[i];

a[i]=a[i+1];

a[i+1]=temp;

}

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

{

System.out.print(a[i]+"\t");

}

}

else

{

System.out.println("\n Array size invalid");

}

}

}

15)Searching element from an array(Linear Search).

import java.util.\*;

public class Main

{

public static void main(String[] args)

{

int n,i,temp,flag=0;

Scanner sc=new Scanner(System.in);

System.out.println("Enter array size");

n=sc.nextInt();

int a[]=new int[n];

System.out.println("Enter" +n+ "Element");

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

{

a[i]=sc.nextInt();

}

System.out.println("\nArray Element are");

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

{

System.out.print(a[i]+"\t");

}

System.out.println("\n\n Enter an element which want u want to search");

int num=sc.nextInt();

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

{

if(a[i]==num)

{

flag=1;

System.out.println("Element found at position:"+(i+1));

break;

}

}

if(flag==0)

{

System.out.println("Element not found");

}

}

}

16) Binary Search.

17)Array sort(java program to sort the elements of an array in ascending order)

import java.util.\*;

public class ArrayDemo

{

public static void main(String[] args)

{

int n,i,n1,div=0,j;

Scanner sc=new Scanner(System.in);

System.out.println("Enter array size");

n=sc.nextInt();

int a[]=new int[n];

System.out.println("Enter" +n+ "Element");

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

{

a[i]=sc.nextInt();

}

System.out.println("\nArray Element are");

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

{

System.out.print(a[i]+"\t");

}

System.out.println("\n\n Array sort");

int temp;

for(i=0;i<n-1;i++) //passes selection sort

{

for(j=i+1;j<n;j++)//inner iteration

{

if(a[i]>a[j])

{

temp=a[i];

a[i]=a[j];

a[j]=temp;

}

}

}

System.out.println("\n\n Sorted Array element are");

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

{

System.out.println(a[i]+"\t");

}

System.out.println("2nd highest"+a[n-2]);

}

}