//1 wap to take 10 numbers in an array and print count of even and odd number in given array.

package com.Assignments;

public class assignment2\_1 {

int arr[]= {1,2,3,4,5,6,7,8,9,10};

int evenNumbers=0;

int oddNumbers=0;

void count\_even() {

for(int x:arr) {

if(x%2==0) {

evenNumbers+=1;

}

}

System.***out***.println("Count of Even Numbers: "+evenNumbers);

}

void count\_odd() {

for(int x:arr) {

if(x%2!=0) {

oddNumbers+=1;

}

}

System.***out***.println("Count of Even Numbers: "+oddNumbers);

}

public static void main(String[] args) {

assignment2\_1 a12=new assignment2\_1();

a12.count\_even();

a12.count\_odd();

}

}

Count of Even Numbers: 5

Count of Even Numbers: 5

//2 WAP to define two array a and b of size 5 .Add both array elements and store them to third array .

package com.Assignments;

import java.io.InputStream;

public class Assignment2\_2 {

int c[]=new int[5];

void sumOfArrays(int d[],int e[]) {

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

c[i]=d[i]+e[i];

}

for(int x:c) {

System.***out***.print(" "+ x);}

}

public static void main(String[] args) {

int a[]= {1,2,3,4,5};

int b[]= {6,7,8,9,10};

Assignment2\_2 a22= new Assignment2\_2();

a22.sumOfArrays(a,b);

}

}

7 9 11 13 15

//3 WAP that add 10 to each element of array and print numbers that are smaller than 50.

package com.Assignments;

public class Assignment2\_3 {

void add10Toarray(int k[]) {

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

k[i]=k[i]+10;

}

System.***out***.print("Elements of array which are less than 50: ");

for(int x:k) {

if(x<50) {

System.***out***.print(" "+ x);}

}

}

public static void main(String[] args) {

int arr[]= {6,7,8,99,40};

Assignment2\_3 a23= new Assignment2\_3();

a23.add10Toarray(arr);

}

}

Elements of array which are less than 50: 16 17 18

//4 wap to ask 7 names from user in string array and search for particular name in given array using for loop

package com.Assignments;

import java.util.Scanner;

public class Assignment2\_4 {

Scanner s=new Scanner(System.***in***);

void setData(String n[]) {

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

System.***out***.print("Enter name: ");

n[i]=s.next();

}

}

void getData(String n[]) {

for(String x:n) {

System.***out***.println("name: "+x);

}

}

void searchArray(String n[]) {

System.***out***.println("enter name to be searched: ");

String nm=s.next();

int flag=0;

for(String x:n)

{

if(nm.equals(x)) {

flag=1;

break;

}

}

if(flag==1) {System.***out***.println("Name is found in the given list of names.");}

else {System.***out***.println("Name is not found in the given list of names.");}

}

public static void main(String[] args) {

String name[]=new String[7];

Assignment2\_4 a24=new Assignment2\_4();

a24.setData(name);

a24.getData(name);

a24.searchArray(name);

}

}

Enter name: a

Enter name: b

Enter name: c

Enter name: d

Enter name: e

Enter name: f

Enter name: g

name: a

name: b

name: c

name: d

name: e

name: f

name: g

enter name to be searched:

f

Name is found in the given list of names.

//5 wap to define an array of integer .Take input from user .count and

//print numbers greater than 100 .

package com.Assignments;

import java.util.Scanner;

public class Assignment2\_5 {

Scanner s=new Scanner(System.in);

int setSizeArray(int q) {

System.out.print("Enter array size: ");

q=s.nextInt();

return q;

}

void setArrayValues(int a[]) {

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

System.out.print("Enter array values: ");

a[i]=s.nextInt();

}

}

void displayArrayValues(int a[]) {

for (int x:a) {

System.out.print(" "+x);

}

}

void displayArrayValuesGreater100(int a[]) {

int count=0;

int flag=0;

System.out.print("\nElements of array which are greater than 100: ");

for(int x:a) {

if(x>100) {

System.out.println(" "+x);

count+=1;

flag=1;

}

}

if(flag==0) {System.out.println("Nil");}

else {System.out.println("Total elements greater than 100: "+count);

}

}

public static void main(String[] args) {

Assignment2\_5 p=new Assignment2\_5();

int q=0;

int k=p.setSizeArray(q);

int array[]=new int[k];

p.setArrayValues(array);

p.displayArrayValues(array);

p.displayArrayValuesGreater100(array);

}

}

Enter array size: 5

Enter array values: 5

Enter array values: 99

Enter array values: 23

Enter array values: 44

Enter array values: 66

5 99 23 44 66

Elements of array which are greater than 100: Nil

//6 wap to ask password from user and check if it is 123 then print

//"allowed access" else give 3 total attempt to enter password .

//after 3 attempt print card blocked

package com.Assignments;

import java.util.Scanner;

public class Assignment2\_6 {

Scanner s=new Scanner(System.in);

static int pin=123;

void checkPin() {

int count=3;

int flag=0;

while(count>0) {

System.out.print("enter 3 digits pin: ");

int p1=s.nextInt();

if(p1==pin) {

System.out.println("Allowed access.");

flag=0;

break;

}

else {

count=count-1;

flag=1;

System.out.println("Invalid pin.Try gain.Number of remaining chances: "+(count));

}

}

if(flag==1) {System.out.println("3 wrong attempts, so card is blocked.");}

}

public static void main(String[] args) {

Assignment2\_6 a26=new Assignment2\_6();

a26.checkPin();

}

}

enter 3 digits pin: 923

Invalid pin.Try gain.Number of remaining chances: 2

enter 3 digits pin: 229

Invalid pin.Try gain.Number of remaining chances: 1

enter 3 digits pin: 123

Allowed access.

//7 Take 20 integer inputs from user and print the following:

//number of positive numbers

//number of negative numbers

//number of odd numbers

//number of even numbers

//number of 0s.

package com.Assignments;

import java.util.Scanner;

public class Assignment2\_7 {

Scanner s=new Scanner(System.***in***);

int setSizeArray(int q) {

System.***out***.print("Enter array size: ");

q=s.nextInt();

return q;

}

void setArrayValues(int a[]) {

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

System.***out***.print("Enter array values: ");

a[i]=s.nextInt();

}

}

void displayArrayValues(int a[]) {

for (int x:a) {

System.***out***.print(" "+x);

}

}

void numberOfPositiveNum(int a[]) {

int count=0;

for(int x:a) {

if(x>0) {

count+=1;

}

}

System.***out***.println("\nNumber of positive integers: "+count);

}

void numberOfOddEvenZero(int a[]) {

int countEven=0;

int countOdd=0;

int zeros=0;

for(int x:a) {

if(x==0) {zeros+=1;}

if(x%2==0) {

countEven+=1;

}

else {countOdd+=1;}

}

System.***out***.println("Number of even integers: "+countEven);

System.***out***.println("Number of odd integers: "+countOdd);

System.***out***.println("Number of zeros: "+zeros);

}

void numberOfNegativeNum(int a[]) {

int count=0;

for(int x:a) {

if(x<0) {

count+=1;

}

}

System.***out***.println("Number of negative integers: "+count);

}

public static void main(String[] args) {

Assignment2\_7 p=new Assignment2\_7();

int q=0;

int k=p.setSizeArray(q);

int array[]=new int[k];

p.setArrayValues(array);

p.displayArrayValues(array);

p.numberOfPositiveNum(array);

p.numberOfNegativeNum(array);

p.numberOfOddEvenZero(array);

}

}

output:

Enter array size: 20

Enter array values: 1

Enter array values: 2

Enter array values: 0

Enter array values: 5

Enter array values: 7

Enter array values: 21

Enter array values: 0

Enter array values: 3

Enter array values: 6

Enter array values: 9

Enter array values: 12

Enter array values: 0

Enter array values: -9

Enter array values: -8

Enter array values: -2

Enter array values: -1

Enter array values: -99

Enter array values: -33

Enter array values: -23

Enter array values: 100

1 2 0 5 7 21 0 3 6 9 12 0 -9 -8 -2 -1 -99 -33 -23 100Number of positive integers: 10

Number of negative integers: 7

Number of even integers: 9

Number of odd integers: 11

Number of zeros: 3

//8 Write a program to search element in array using

//(linear search and binary search)

package com.Assignments;

import java.util.Scanner;

import java.util.Arrays;

public class Assignment2\_8 {

Scanner s=new Scanner(System.***in***);

void linearSearch(int a[]) {

System.***out***.print("enter element to be searched using Linear Search: ");

int element=s.nextInt();

int flag=0;

int position=0;

for(int x:a) {

position+=1;

if(x==element) {

flag=1;

break;

}

}

if(flag==1) {

System.***out***.println("\nElement "+element+" is found at position: "+(position-1));

}

else {

System.***out***.println("element is not found in the array");

}

}

void binarySearch(int a[]) {

System.***out***.println("enter element to be searched using binary search: ");

int element=s.nextInt();

int flag=0;

int left=0;

int mid=0;

int right=a.length-1;

System.***out***.println("initially left,mid,right: "+left+" "+mid+" "+right);

while(left<=right) {

mid=(left+right)/2;

if(a[mid]==element) {

flag=1;

break;

}

else if(a[mid]<element) {

left=mid+1;

}

else {

right=mid-1;

}

System.***out***.println("left,mid,right: "+left+" "+mid+" "+right);

}

System.***out***.println("left,mid,right: "+left+" "+mid+" "+right);

if(flag==0) {

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

}

else {

System.***out***.println(element+" is found at position: "+mid);

}

}

public static void main(String[] args) {

int arr[]= {1,7,8,99,157,223,25,36,99};

Arrays.*sort*(arr);

Assignment2\_8 a28=new Assignment2\_8();

a28.linearSearch(arr);

a28.binarySearch(arr);

}

}

Output:

enter element to be searched using Linear Search: 36

Element 36 is found at position: 4

enter element to be searched using binary search:

36

initially left,mid,right: 0 0 8

left,mid,right: 0 4 8

36 is found at position: 4

//9 wap to check a given number is armstrong or not i.e. 153 = 1\*1\*1 + 5\*5\*5+3\*3\*3

package assignment\_1;

import java.util.Scanner;

import java.lang.Math;

public class assignment2\_9 {

int armst;

int power;

void findingDigits(int x) {

while(x>0) {

int digit=x%10;

System.***out***.println("The digit of the number: "+digit);

power+=1;

x=x/10;

}

System.***out***.println("Total digits: "+power);

}

void armstrong(int x) {

while(x>0) {

int digit=x%10;

x=x/10;

int y=(int) Math.*pow*(digit,power);

armst=armst+y;

}

}

void checkarmstrong(int x) {

if(x==armst) {System.***out***.println("Given number is an armstrong number.");}

else {System.***out***.println("Given number is not an armstrong number.");}

}

public static void main(String[] args) {

try {

Scanner s=new Scanner(System.***in***);

System.***out***.println("Enter the inter number whose sum of digits to be found out: ");

int integer\_input=s.nextInt();

assignment2\_9 integer=new assignment2\_9();

integer.findingDigits(integer\_input);

integer.armstrong(integer\_input);

integer.checkarmstrong(integer\_input);

}

catch(Exception e) {System.***out***.println("Error occured: "+e);}

}

}

Output:

Enter number:

153

The digit of the number: 3

The digit of the number: 5

The digit of the number: 1

Total digits: 3

Given number is an armstrong number.

//Q 10 Rajan went to a movie with his friends in a multiplex theatre and

//during break time he bought pizzas, puffs and cool drinks. Consider the following prices :

//Rs.100/pizza

//Rs.20/puffs

//Rs.10/cooldrink

//Generate a bill for What Rajan has bought.

//Sample Input 1:

//Enter the no of pizzas bought:10

//Enter the no of puffs bought:12

//Enter the no of cool drinks bought:5

//Sample Output 1:

//Bill Details

//No of pizzas:10

//No of puffs:12

//No of cooldrinks:5

//Total price=1290

package com.Assignments;

import java.util.Scanner;

class multiplex{

Scanner s=new Scanner(System.***in***);

int pizza;

int puff;

int cooldrink;

int total;

static int *pizza\_price*=100;

static int *puff\_price*=20;

static int *cooldrink\_price*=10;

void setData() {

System.***out***.println("Enter the no of pizzas bought: ");

pizza=s.nextInt();

System.***out***.println("Enter the no of puffs bought: ");

puff=s.nextInt();

System.***out***.println("Enter the no of cooldrinks bought: ");

cooldrink=s.nextInt();

}

void getData() {

System.***out***.println("Bill Details: ");

System.***out***.println("No of pizzas bought: "+pizza);

System.***out***.println("No of puffs bought: "+puff);

System.***out***.println("No of cooldrinks bought: "+cooldrink);

System.***out***.println("Total price= "+(pizza\**pizza\_price*+puff\**puff\_price*+cooldrink\**cooldrink\_price*));

}

}

public class Assignment2\_10 {

public static void main(String[] args) {

multiplex m=new multiplex();

m.setData();

m.getData();}

}

Output:

Enter the no of pizzas bought:

10

Enter the no of puffs bought:

12

Enter the no of cooldrinks bought:

5

Bill Details:

No of pizzas bought: 10

No of puffs bought: 12

No of cooldrinks bought: 5

Total price= 1290