LAB 1

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Q1-WRITE A PROGRAM TO WRITE VALUES IN AN INTEGER ARRAY.

/\*

INITIALIZE INTEGER

INITIALIZE ARRAY AND ASSIGN VALUES

ADD THE VALUS

OUTPUT THE RESULT

\*/

package javaapplication1;

import java.util.Scanner;

public class JavaApplication1 {

public static void main(String[] args) {

Scanner in = new Scanner(System.in);

int i,result = 0;

int array[]=new int[5];

//{1,2,3,4,5,6};

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

{

System.out.println("input value");

array[k]=in.nextInt();

result=result+array[k];

}

System.out.println(result);

}

}

Q2-WRITE A FABINOCCI SERIES.

package javaapplication2;

/\*

DEFINE THE NUMBER OF TOTAL VALUES YOU WANT TO PRINT

INITIALIZE INTEGERS a,b,c

FORMULA OF FIBNOCCI SERIES

PRINT VALUES

\*/

public class JavaApplication2 {

public static void main (String args[])

{

int n = 9;

int a = 0, b = 1, c;

System.out.println(b);

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

{

c = a + b;

a = b;

b = c;

System.out.println(b);

}

}

}

Q3-WRITE A PROGRAM TO FIND OUT IF A NUMBER IS A PALINDROME OR NOT.

package javaapplication3;

import java.util.Scanner;

/\*

ENTER A NUMBER

REVERSE THE NUMBER

COMPARE THE INITIAL NUMBER WITH REVERSED NUMBER

IF THEY ARE SAME THEN PRINT "PALINDROME"

\*/

public class JavaApplication3 {

public static void main(String[] args) {

Scanner in = new Scanner(System.in);

System.out.println("input value to check if it's a palindrome");

int i=in.nextInt();

int n =i;

int reverse=0;

while(n!= 0)

{

reverse = reverse \* 10;

reverse = reverse + n%10;

n = n/10;

}

if(i==reverse){

System.out.println("the number "+i+" is a palindrome");

}

else{

System.out.println("the number "+i+" is not a palindrome");

} } }

Q4- WRITE A PROGRAM TO PRINT HAILSTONE SEQUENCE.

package javaapplication4;

public class JavaApplication4 {

static int c;

// function to print hailstone numbers

// and to calculate the number of steps

// required

static int HailstoneNumbers(int N)

{

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

if (N == 1 && c == 0) {

return c;

}

else if (N == 1 && c != 0) {

c++;

return c;

}

else if (N % 2 == 0) {

c++;

HailstoneNumbers(N / 2);

}

else if (N % 2 != 0) {

c++;

HailstoneNumbers(3 \* N + 1); }

return c;

}

public static void main(String[] args)

{

int N = 7;

int x;

x = HailstoneNumbers(N);

System.out.println();

System.out.println("Number of Steps: " +x);

} }

Q5-DESIGN A BASIC CALCULATOR.

package javaapplication5;

import java.util.Objects;

import java.util.Scanner;

import static javafx.application.Platform.exit;

/\* user enters \*, / ,+ ,-

then the user enters number1

then the user enters number2

then output the result \*/

public class JavaApplication5 {

public static void main(String[] args) {

int num1,num2;

Scanner in = new Scanner(System.in);

System.out.println("choose one operation \n add \n subtract \n divide \n multiply");

String choice=in.next();

if (Objects.equals(choice, "add")){

System.out.println("enter first number");

num1= in.nextInt();

System.out.println("enter second number");

num2= in.nextInt();

int add=num1+num2;

System.out.println("your choice was add so the result is "+add);

}

else if (Objects.equals(choice, "subtract")){

System.out.println("enter first number");

num1= in.nextInt();

System.out.println("enter second number");

num2= in.nextInt();

int sub=num1-num2;

System.out.println("your choice was subtract so the result is "+sub); }

else if (Objects.equals(choice, "divide")){

System.out.println("enter first number");

float fnum1= in.nextFloat();

System.out.println("enter second number");

float fnum2= in.nextFloat();

if (fnum2==0)

exit();

float divide=fnum1/fnum2;

System.out.println("your choice was subtract so the result is "+divide); }

else if (Objects.equals(choice, "multiply")){

System.out.println("enter first number");

num1= in.nextInt();

System.out.println("enter second number");

num2= in.nextInt();

int mul=num1\*num2;

System.out.println("your choice was subtract so the result is "+mul);

}

else{

System.out.println("wrong choice");

}

}

}

----------------------------------------------------------------------