**MEKELLE UNIVERSITY**

ETHIOPIAN INSTITUATE OF TECHNOLOGY(EIT-M)

SCHOOL OF COMPUTING

DEPARTMENT OF INFORMATION SYSTEM

Assignment: Java

section-3

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1.

/\*

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\* and open the template in the editor.

\*/

packagefibonacci;

import java.util.Scanner;

\*/

public class Fibonacci {

public static void main(String[] args) {

//input to print Fibonacci series upto how many numbers

System.out.print("Enter number upto which Fibonacci series to print: ");

int number = new Scanner(System.in).nextInt();

System.out.println("\n\nFibonacci series upto " + number +" numbers : ");

//printing Fibonacci series upto number

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

System.out.print(fibonacciRecusion(i) +" ");

}

}

// Java program for Fibonacci number using recursion.

public static intfibonacciRecusion(int number){

if(number == 1 || number == 2){

return 1;

}

returnfibonacciRecusion(number-1) + fibonacciRecusion(number -2); //tail recursion

}

// Java program for Fibonacci number using Loop.

public static intfibonacciLoop(int number){

if(number == 1 || number == 2){

return 1;

}

int fibo1=1, fibo2=1, fibonacci=1;

for(int i= 3; i<= number; i++){

fibonacci = fibo1 + fibo2; //Fibonacci number is sum of previous two Fibonacci number

fibo1 = fibo2;

fibo2 = fibonacci;

}

returnfibonacci; //Fibonacci number

}

1.2 package factorial;

import java.util.Scanner;

public class Factorial {

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

System.out.println("Enter the number for factorial calculations");

int a = scanner.nextInt();

double fact= 1;

System.out.println("Factorial of " +a+ ":");

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

fact=fact\*i;

}

System.out.println(fact);

}

}

2.

importjava.util.HashMap;

importjava.util.Map;

importjavax.xml.stream.events.Characters;

public class EncryptDecrypt {

static Map<String,String> Dictionary = new HashMap<String,String>();

static Map<String,String>RevDictionary = new HashMap<String,String>();

EncryptDecrypt(){

Dictionary.put("A","%");

Dictionary.put("a","9");

Dictionary.put("B","@");

Dictionary.put("b","#");

Dictionary.put("C","1");

Dictionary.put("c","2");

Dictionary.put("D","3");

Dictionary.put("d","4");

Dictionary.put("E","5");

Dictionary.put("e","6");

Dictionary.put("F","7");

Dictionary.put("f","8");

Dictionary.put("G","0");

Dictionary.put("g","}");

Dictionary.put("H","{");

Dictionary.put("h","]");

Dictionary.put("I","[");

Dictionary.put("i",",");

Dictionary.put("J",".");

Dictionary.put("j",">");

Dictionary.put("K","<");

Dictionary.put("k","/");

Dictionary.put("L","0");

Dictionary.put("l","\\-");

Dictionary.put("M","\\\"");

Dictionary.put("m","::");

Dictionary.put("N",";");

Dictionary.put("n","+");

Dictionary.put("O","S");

Dictionary.put("n","-");

Dictionary.put("Q","$");

Dictionary.put("q","%");

Dictionary.put("R","^");

Dictionary.put("r","&");

Dictionary.put("S","\*");

Dictionary.put("s","(");

Dictionary.put("T",")");

Dictionary.put("t","~");

Dictionary.put("U","10");

Dictionary.put("u","5");

Dictionary.put("V","\\\\");

Dictionary.put("v","+");

Dictionary.put("W","=");

Dictionary.put("w","7");

Dictionary.put("X","~");

Dictionary.put("x",")");

Dictionary.put("Y","2");

Dictionary.put("y","\*");

Dictionary.put("Z","]");

Dictionary.put("z","8");

}

static String Encrypt(String input){

String encrypted="";

String character;

charcharOfString;

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

charOfString = input.charAt(i);

character = ""+charOfString;

if(Dictionary.containsKey(character)){

encrypted =encrypted + Dictionary.get(character);

}

}

return encrypted;

}

static String Decrypt(String input){

String Decrypted = "";

String character;

charcharOfString;

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

charOfString = input.charAt(i);

character = ""+charOfString;

if(Dictionary.containsKey(character)){

Decrypted =Decrypted + Dictionary.get(character);

}

System.out.println(Dictionary);

}

return Decrypted;

}

public static void main(String[] args) {

// TODO Auto-generated method stub

String val ="Kibrom";

String encrypt = Encrypt(val);

LinearCrypto op = new LinearCrypto();

System.out.println(op.getCode());

}

}

3.

packageBanck;

import java.util.Scanner;

public class customer2 {

double deposit;

intaccount\_number;

String name;

double balance;

double withdraw;

double deposit(double x){

Scanner input=new Scanner(System.in);

System.out.println(" enter amount to be deposit");

x=input.nextDouble();

balance+=x;

return balance;

}

double withdraw(double y){

Scanner input=new Scanner(System.in);

System.out.println("enter amount to be withdraw");

y=input.nextDouble();

if(y<=balance){

balance-=y;

}

else {

System.out.println("your balance is low");

}

return balance;

}

public static void main(String[] args)

{

String name;

intaccount\_number;

Banck3 bk=new Banck3();

Scanner input=new Scanner(System.in);

System.out.print("enter your name");

name=input.nextLine();

System.out.println("enter your account\_number");

account\_number=input.nextInt();

bk.deposit();

bk.withdraw();

}

}

4.

package reverse22;

import java.io.\*;

import java.io.BufferedReader;

import java.io.IOException;

importjava.io.InputStreamReader;

public class Reverse{

\* @param args the command line arguments

\* @throws java.io.IOException

\*/

public static void main(String[] args) throws IOException {

// TODO code application logic here

BufferedReader br = new BufferedReader(new InputStreamReader(System.in));

System.out.print("Enter string: ");

String s = br.readLine();

String reverse = "";

int length = s.length();

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

{

reverse = reverse + s.charAt(i);

System.out.println("Result:" + reverse);

// TODO code application logic here

}

}

}

5.

import java.util.Scanner;

/\*

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public class number1 {

intoddnumber=0;

intsmallestnumber=0;

intlargestnumber=0;

intevennumber=0;

intprimenumber=0;

voidNnum(){

int N;

Scanner input=new Scanner(System.in);

System.out.println("enter the amount of number");

N=input.nextInt();

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

if(i%2==0){

evennumber++;

System.out.println("the number are even" +i);

}

else if(i%2!=0){

oddnumber++;

System.out.println("the number are odd" +i +oddnumber);

}

else if((i%2!=0)&&(i%3!=0)){

primenumber++;

System.out.println("the number are primenumber"+i);

}

else if(i<++i){

largestnumber++;

System.out.println("the largestnumber is"+ ++i);

}

else

{

smallestnumber++;

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

}}

}

public static void main(String[] args)

{

number1num=new number1();

num.Nnum();

}

}