1. **Read an Employee data with idno, name and mobilenumber (regular expression)**

**and compare the mobile number must have only 10 digits**

**name can consists of only alphabets , space character**

package LAB.com;

import java.util.\*;

import java.util.regex.\*;

public class RegExcep{

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

System.out.println("Enter ID number");

String name=sc.next();

System.out.println("Enter Name");

String id= sc.next();

System.out.println("Enter 10 digit Mobile number");

String mobile= sc.next();

if(Pattern.matches("\\d\\d\\d\\d\\d\\d\\d\\d\\d\\d", mobile))

System.out.println("valid mobile number");

else

System.out.println("Invalid mobile number");

}

}

**Output:**

**Enter ID number**

**1**

**Enter Name**

**Mercy**

**Enter 10 digit Mobile number**

**1234567899**

**valid mobile number**

**Enter ID number**

**1**

**Enter Name**

**deepthi**

**Enter 10 digit Mobile number**

**12534567**

**Invalid mobile number**

**2. Write a mutithreading program,**

**thread 1 : to display all perfect numbers,**

**thread 2 : to display factorial value of numbers from 1 to 10.**

**package LAB4;**

**import java.util.Scanner;**

**public class Thread1 {**

**public static void main(String[] args) {**

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

**long num,i,sum=0;**

**System.out.println("Enter a number");**

**num=obj.nextLong();**

**for(i=1;i<num;i++)**

**{**

**if(num%i==0)**

**{**

**System.out.println(i);**

**sum=sum+i;**

**}**

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

**if(sum==num)**

**System.out.println(num+"is prefect number");**

**else**

**System.out.println(num+"is not a perfect number");**

**}**

**}**

**}**

**public class Thread1 extends Thread2 {**

**public static void main(String[] args) {**

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

**long num, i, fact=1;**

**System.out.println("Enter an integer to find factorial ");**

**num= obj.nextLong();**

**for(i=1;i<=num;i++)**

**fact\*=i;**

**System.out.println(num+"!= "+fact);**

**}**

**}**

**Output:**

**Enter a number**

**2**

**1**

**sum=1**

**2is not a perfect number**

**Enter an integer to find factorial**

**10**

**10!= 3628800**

**3. Write a program to read the data from file.**

**package LAB.com;**

**import java.io.\*;**

**public class DataFile {**

**public static void main(String[] sun) throws IOException**

**{**

**FileReader fr=new FileReader("F:\\Anudip\\Test.txt");**

**BufferedReader br=new BufferedReader(fr);**

**String str=null;**

**while( true )**

**{ try**

**{ str=br.readLine();**

**if(str.equals(null))**

**break;**

**System.out.println(str);**

**}**

**catch(NullPointerException e)**

**{ break; }**

**}**

**br.close();**

**fr.close();**

**}**

**}**

**Output:**

**Hello**

**World**

**4. write a program to write the content to file in append mode**

**package LAB.com;**

**import java.io.BufferedWriter;**

**import java.io.DataInputStream;**

**import java.io.FileWriter;**

**import java.io.IOException;**

**public class Append {**

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

**{**

**DataInputStream dis = new DataInputStream(System.in);**

**FileWriter fw = new FileWriter("F:\\Anudip\\Test.txt",true);**

**BufferedWriter br=new BufferedWriter(fw);**

**String str=null;**

**int size;**

**while( true )**

**{**

**System.out.println("Enter file input");**

**str=dis.readLine();**

**if(str.equals("null"))**

**break;**

**size=str.length();**

**br.write(str,0,size);**

**br.write("\n");**

**}**

**br.close();**

**fw.close();**

**}**

**}**