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 sravs.test; import
java.util.*; import
java.util.regex.Matcher; import
java.util.regex.Pattern; public
class matche {
     public static void main(String[] args) {
          // TODO Auto-generated method stub

          int idno;
String name;
          String mobnum;
          Scanner sc=new Scanner(System.in);
System.out.println("Enter idno");
idno=sc.nextInt();
          System.out.println("Enter name");
name=sc.next();
          System.out.println("Enter mobilenum");
          mobnum=sc.next();

if(Pattern.matches("\\d\\d\\d\\d\\d\\d\\d\\d\\d\\d",mobnum))
          System.out.println("Valid mobile num");
else
          System.out.println("Invalid mobile");
     }

}
```

Output:

```
Enter idno

20 Enter name
sravanti Enter
mobilenum
9676933376
Valid mobile num

Enter idno

23 Enter name
sravanti Enter
mobilenum
```

```
967693333657
Invalid mobilenum
```

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 sravs.test; import
java.util.*; public class
thread {
     public static void main(String[] args) {
     // TODO Auto-generated method stub
Scanner obj = new Scanner(System.in);
long num,i,sum=0; ——
          System.out.println("Enter a number");
          num=obj.nextInt();
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 thread {
     public static void main(String[] args) {
          // TODO Auto-generated method stub



                    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

7 1
sum=1
7is not a perfect number sum=1
7is not a perfect number sum=1
7is not a perfect number sum=1
7is not a perfect number sum=1
7is not a perfect number sum=1
7is not a perfect number


Enter an integer to find factorial
4
4!=24
```

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

```
package IOecp; import
java.io.*; public
class wri {

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


                  }
                  {
                    FileReader f=new
FileReader("d:\\sravanti\\sravanti.txt");
                     BufferedReader b=new BufferedReader(f);
                    String str=null; while( true )
```

```
                    { try { str=b.readLine();

                    if(str.equals(null)) break;
                    }
                    System.out.println(str);
                    }
                    catch(NullPointerException e)
                    { break;

                }
                    b.close();
                    f.close();
                    }
                    }
```

Output:

```
Hello sravantiii
```

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

```
  package IOexp;
import java.io.*;
public class wri {

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

                    BufferedReader reader = new
BufferedReader(new InputStreamReader(System.in));
                    FileWriter fw = new
FileWriter("d:\\sravanti\\textfile.txt,"true);
                    BufferedWriter br = new BufferedWriter(fw);
                    String str = null;
int size;                       while (true) {
             str = reader.readLine();
if (str.equals("null"))
break;                          size =
str.length();                       br.write(str,
0, size);
                        br.write("\n");
                    }
                    br.close();
                    fw.close();
```

```
                }
            }
```

Output:

HI Sravanti

How are you