OBJECT ORIENTED PROGRAMMING WITH JAVA 8– LAB 13

Q1. Write a program which takes the name of a file from user, then displays information about whether the file exists, the length of the file in bytes etc and read the contents of the file and display it.

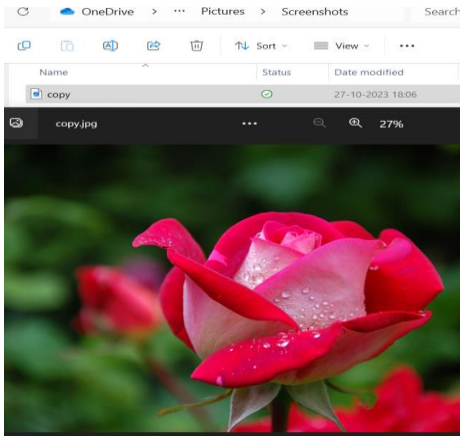
```
import java.io.*;
import java.util.Scanner;

class FileInfo
{
  public static void main(String args[]) throws IOException
  {
    Scanner sc = new Scanner(System.in);
    System.out.println("Enter the name of the file :");
    String fname = sc.nextLine();
    File f1 = new File("E:\\java_notes");
    File f2 = new File(f1,fname);
    System.out.println("File exists ? :" + f2.exists());
    System.out.println("A directory ? :" + f2.isDirectory());
    System.out.println("Name of the File :" + f2.getName());
    System.out.println("Length of the file  :" + f2.length());
    System.out.println("Last modified :" +f2.lastModified());
    System.out.println("content of the directory :");
    String s[] = f1.list();
    for(int i = 0; i<6; i++)
       System.out.println(s[i]);
    }
}
```

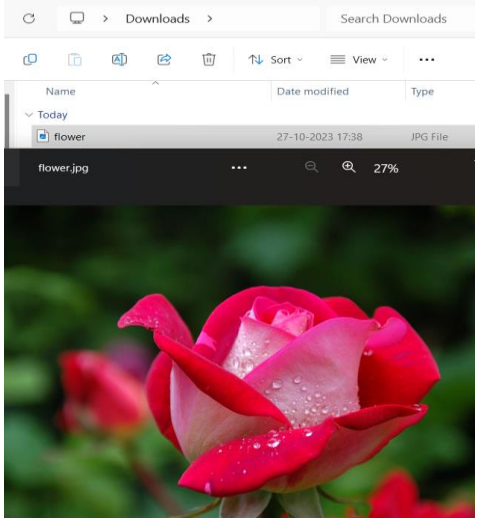
```
E:\java_notes>javac FileInfo.java

E:\java_notes>java FileInfo
Enter the name of the file :
FileEg.java
File exists ? :true
A directory ? :false
Name of the File :FileEg.java
Length of the file  :756
Last modified :1698397905428
content of the directory :
A.class
ABCmain.class
ABCmain.java
Account.class
Accountbalancejava.java
AddStudent.class
```

Q2. Write a program to read the name of an image file and create a copy of that image.

```
import java.io.*;

class ImageCopy
{
  public static void main(String [] args) throws IOException
  {
    FileInputStream in = new FileInputStream("C:\\Users\\Dell\\Downloads\\flower.jpg");

    FileOutputStream ou = new FileOutputStream("C:\\Users\\Dell\\OneDrive\\Pictures\\Screenshots\\copy.jpg");

    BufferedInputStream bin = new BufferedInputStream(in);
    BufferedOutputStream bou = new BufferedOutputStream (ou);
    int b = 0;
    while(b != -1) {
       b = bin.read();
       bou.write(b);
      }
    bin.close();
    bou.close();
  }
}
```

```
E:\java_notes>javac ImageCopy.java

E:\java_notes>java ImageCopy
```





Q3. Write a program to serialize the Employee object with id, name and dept. Create 2 objects for it and store it in a file and then deserialize it and print the details.

```
import java.io.*;

class EmployeeSmple implements Serializable
{
      int id;
      String name,dept;

   EmployeeSmple(int a,String b,String c)
   {
      id = a;
      name = b;
      dept = c;
   }

   public String toString()
   {
      String str = "ID :"+id + " ,Name :" +name +" ,Department :" +dept ;
      return str;
   }
}
class SerializationD
{
  public static void main(String [] args) throws IOException,ClassNotFoundException
  {
      EmployeeSmple e = new EmployeeSmple(1,"Rashi","Admin");
      FileOutputStream fout = new FileOutputStream("serialized.dat");
      ObjectOutputStream oout = new ObjectOutputStream(fout);
      oout.writeObject(e);

      FileInputStream fin = new FileInputStream("serialized.dat");
      ObjectInputStream oin = new ObjectInputStream(fin);
      EmployeeSmple enew = (EmployeeSmple)oin.readObject();
      System.out.println(enew);
   }
}
```

```
E:\java_notes>java SerializationD
ID :1 ,Name :Rashi ,Department :Admin
```

Q4. Write a program to read contents of a file line by line and display it.

```
import java.io.*;

class ReadLinebyLine
{
  public static void main(String args[]) throws IOException
  {
     String fname = "FileEg.java";
     BufferedReader br = new BufferedReader(new FileReader(fname));
     String line;
     while((line = br.readLine()) != null) {
         System.out.println(line);
     }
     br.close();
  }
}
```

```
E:\java_notes>javac ReadLinebyLine.java

E:\java_notes>java ReadLinebyLine
import java.io.*;

class FileEg
{
        public static void main(String ar[])
        {
                File f1=new File("D:/DBDASep2023/OOPs with Java/Programs");
                File f2=new File(f1,"CallerMain.java");

                System.out.println("IS Directory:"+f1.isDirectory());
                System.out.println("IS File:"+f1.isFile());
                System.out.println("Size of the file:"+f2.length());
                System.out.println("Name of the file:"+f2.getName());
                System.out.println("Directory path of the file:"+f2.getPath());
                System.out.println("Last modified time of the file:"+f2.lastModified());
                System.out.println("Directory exists or not:"+f1.exists());
                System.out.println("Contents of the directory:");
                String s[]=f1.list();
                for(int i=0;i<s.length;i++)
                        System.out.println(s[i]);
        }
}
```