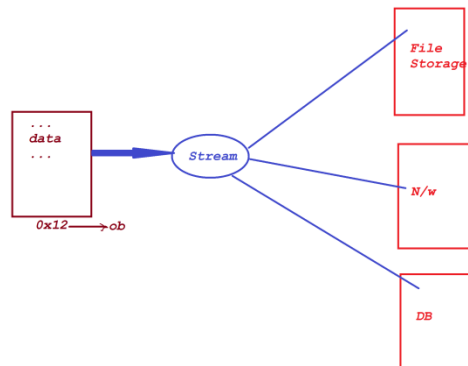
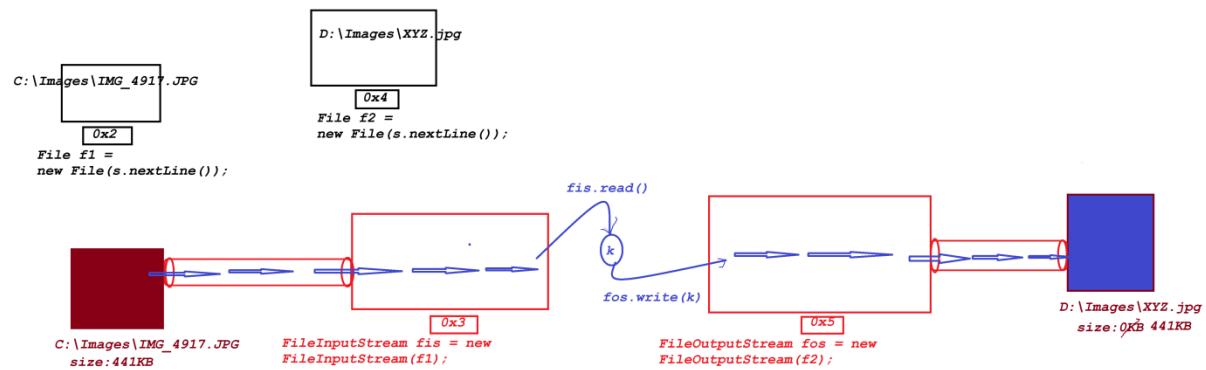


Dt : 3/11/2023

Diagram:



***imp**

Object State onto File Storage:

=>when we want to store Object-state onto File-Storage then Object must be converted into Stream.

define Serialization process?

=>The process of converting Object-state into Stream is known as

Serialization process.

=>we use writeObject() method from java.io.ObjectOutputStream class to perform Serialization process.

syntax:

ObjectOutputStream oos = new ObjectOutputStream(fos);

oos.writeObject(obj);

define DeSerialization process?

=>The process of converting Stream into Object-state is known as DeSerialization process.

=>we use readObject() method from java.io.ObjectInputStream class to perform DeSerialization process.

syntax:

ObjectInputStream ois = new ObjectInputStream(fis);

Object ob = ois.readObject();

Ex-program:

test : TransLog.java(Immutable class)

package test;

import java.util.*;

```
import java.io.*;

@SuppressWarnings("serial")

public final class TransLog implements Serializable
{
    private final long hAccNo,bAccNo;

    private final float amt;

    private final Date dateTime;

    public TransLog(long hAccNo,long bAccNo,float amt,
                    Date dateTime)
    {
        this.hAccNo=hAccNo;

        this.bAccNo=bAccNo;

        this.amt=amt;

        this.dateTime=dateTime;
    }

    public final long gethAccNo() {
        return hAccNo;
    }

    public final long getbAccNo() {
        return bAccNo;
    }

    public final float getAmt() {
```

```
        return amt;
    }

    public final Date getDateTime() {
        return dateTime;
    }
}

maccess : Serialization.java(MainClass)
package maccess;

import java.util.*;
import java.io.*;
import test.TransLog;

public class Serialization
{
    public static void main(String[] args)
    {
        Scanner s = new Scanner(System.in);
        try(s){
            try {
                System.out.println("Enter hAccNo:");

                long hAccNo = s.nextLong();

                System.out.println("Enter bAccNo:");
```

```
long bAccNo = s.nextLong();  
  
System.out.println("Enter Amt to transfer:");  
  
float amt = s.nextFloat();  
  
TransLog ob1 =  
  
new TransLog(hAccNo,bAccNo,amt,new Date());  
  
FileOutputStream fos =  
  
new FileOutputStream("D:\\Images\\Obj.txt");  
  
ObjectOutputStream oos =  
  
new ObjectOutputStream(fos);  
  
oos.writeObject(ob1);//Serialization  
  
System.out.println("Object Stored Successfully..");  
  
oos.close();  
  
}catch(Exception e) {e.printStackTrace();}  
  
//end of try with resource  
  
}  
  
}
```

o/p:

Enter hAccNo:

6123456

Enter bAccNo:

313131

Enter Amt to transfer:

12045.56

Object Stored Successfully..

maccess : DeSerialization.java(MainClass)

package maccess;

import java.io.*;

import test.TransLog;

public class DeSerialization {

public static void main(String[] args) {

try {

FileInputStream fis =

new FileInputStream("D:\\Images\\Obj.txt");

ObjectInputStream ois = new ObjectInputStream(fis);

TransLog ob2 = (TransLog)ois.readObject();//De_serialization

System.out.println("**TransDetails****");**

System.out.println("HAccNo:"+ob2.gethAccNo());

System.out.println("BAccNo:"+ob2.getbAccNo());

System.out.println("Amount:"+ob2.getAmt());

System.out.println("DateTime:"+ob2.getDateTime());

ois.close();

```
}catch(Exception e) {e.printStackTrace();}
```

```
}
```

```
}
```

o/p:

******TransDetails******

HAccNo:6123456

BAccNo:313131

Amount:12045.56

DateTime:Fri Nov 03 19:17:43 IST 2023

