CS1083

Assignment 7

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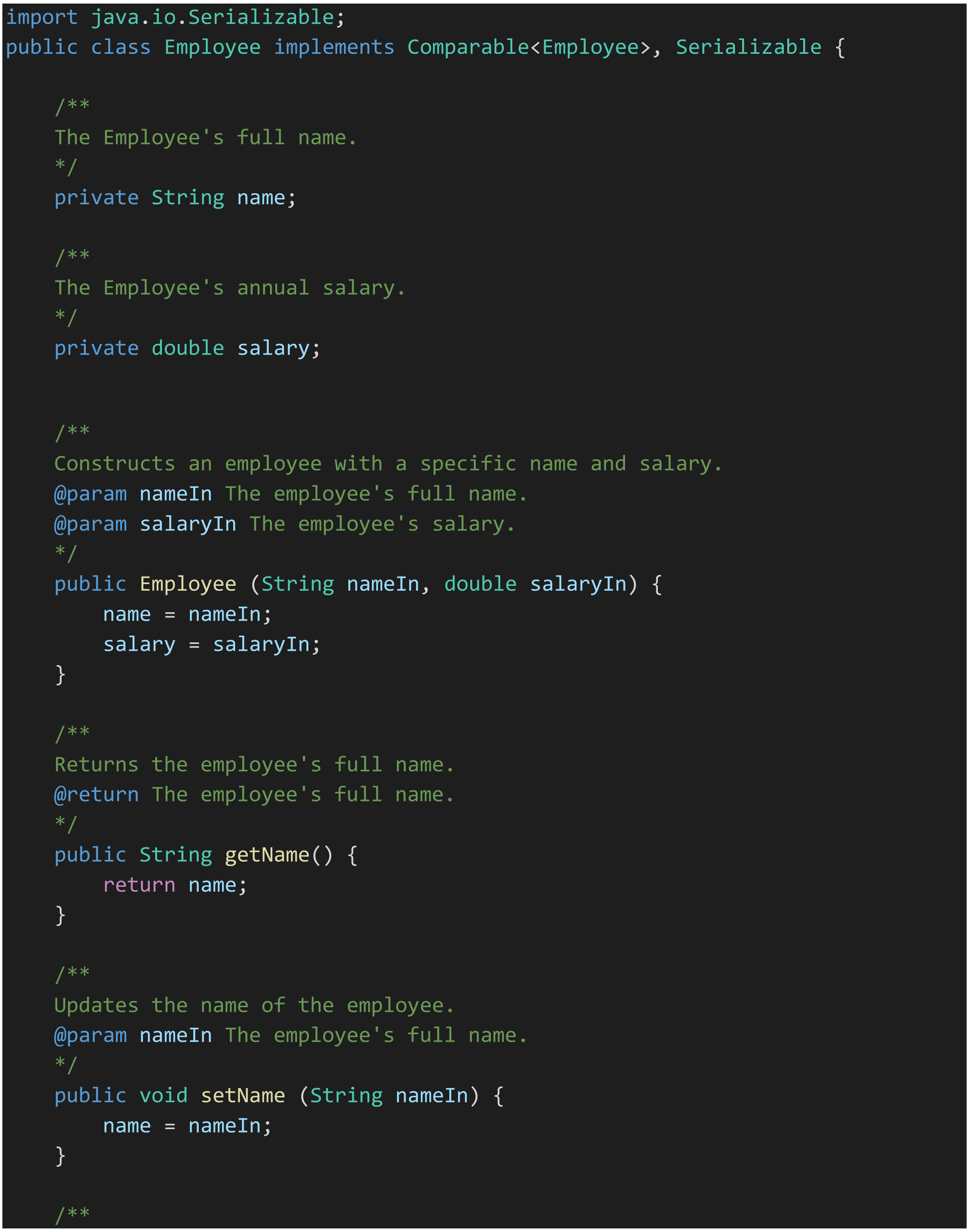
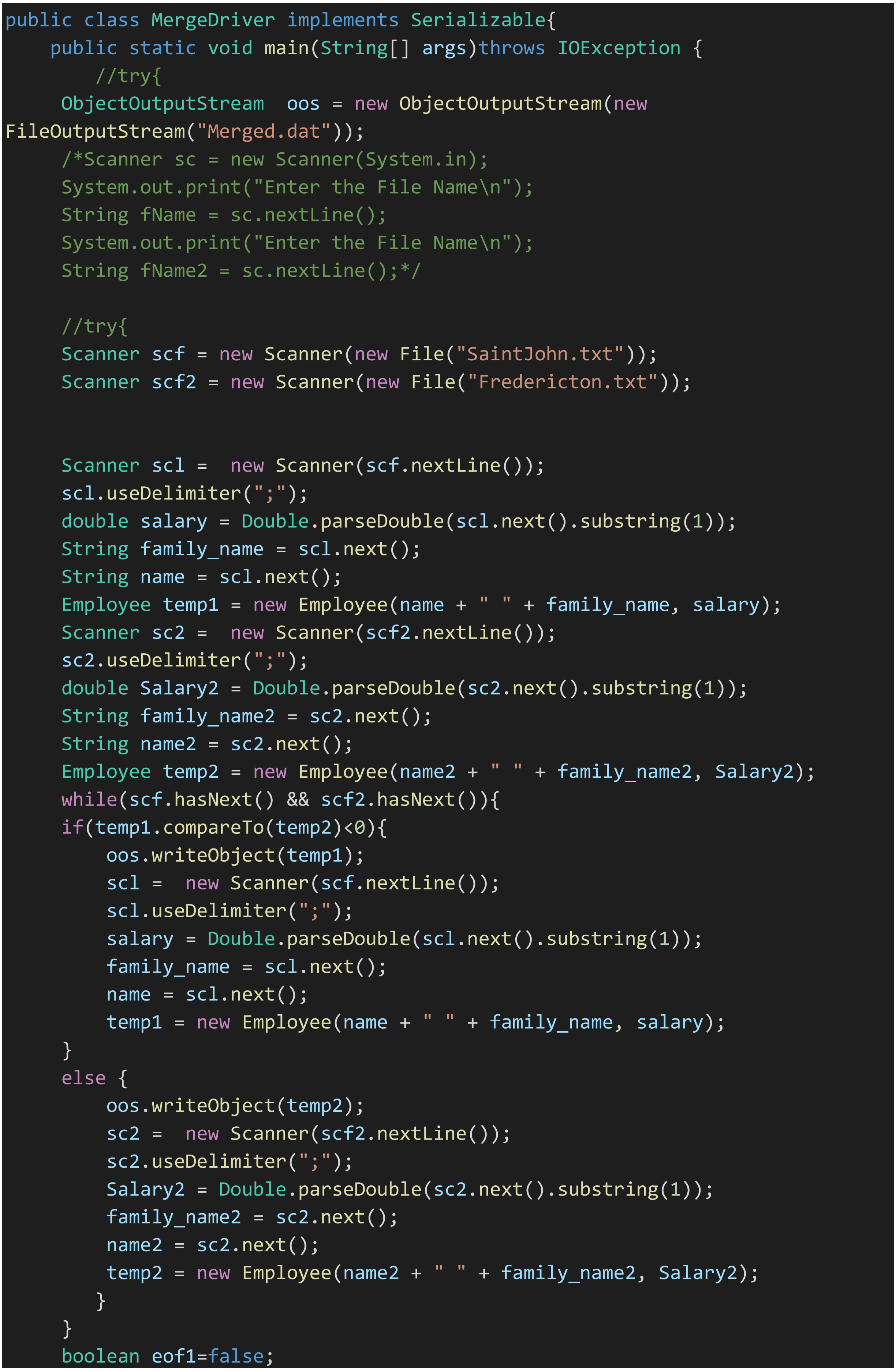
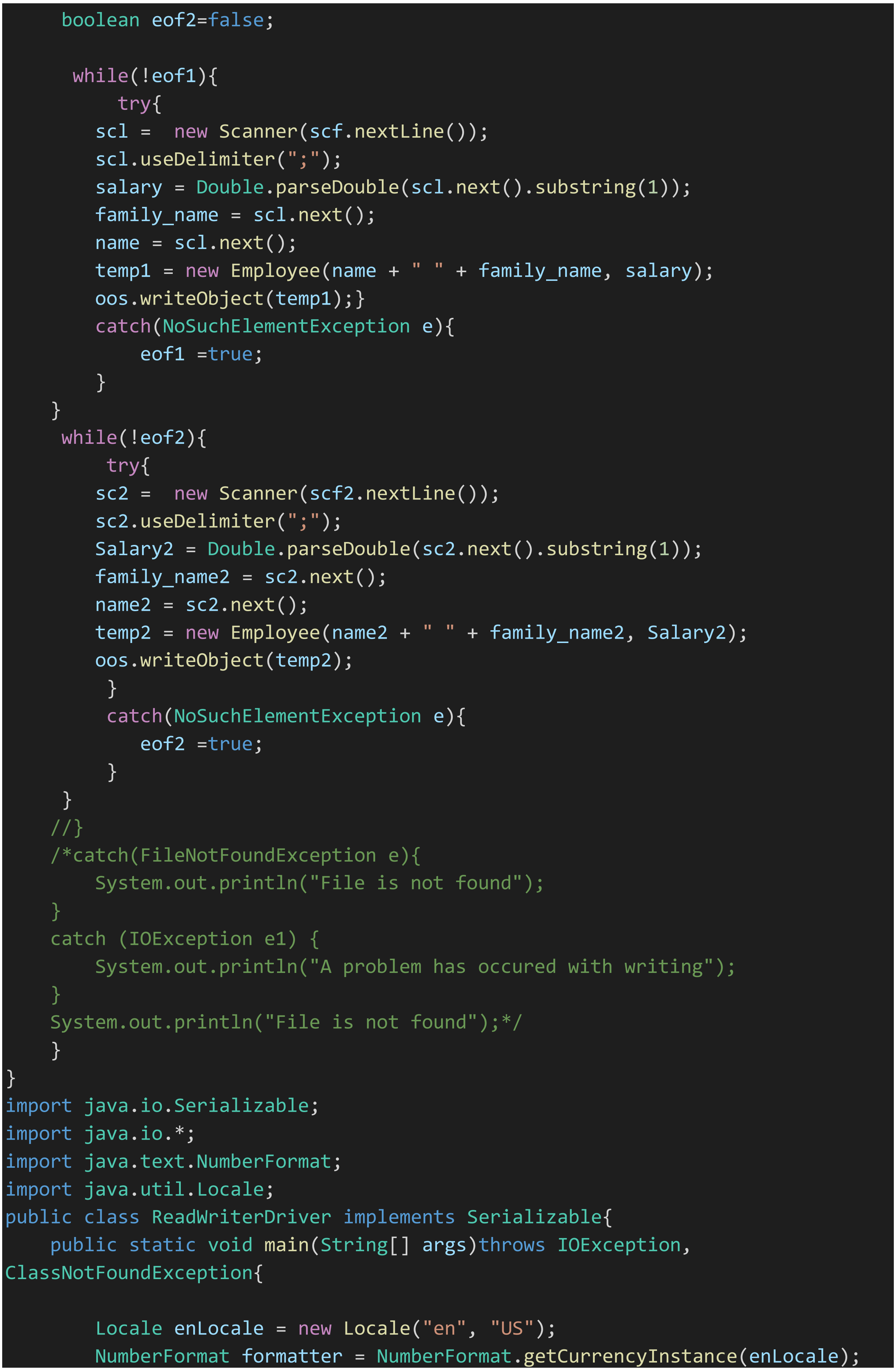
Code:



```java
import java.io.Serializable;
public class Employee implements Comparable<Employee>, Serializable {

    /**
    The Employee's full name.
    */
    private String name;

    /**
    The Employee's annual salary.
    */
    private double salary;


    /**
    Constructs an employee with a specific name and salary.
    @param nameIn The employee's full name.
    @param salaryIn The employee's salary.
    */
    public Employee (String nameIn, double salaryIn) {
        name = nameIn;
        salary = salaryIn;
    }

    /**
    Returns the employee's full name.
    @return The employee's full name.
    */
    public String getName() {
        return name;
    }

    /**
    Updates the name of the employee.
    @param nameIn The employee's full name.
    */
    public void setName (String nameIn) {
        name = nameIn;
    }

    /**
    Returns the employee's salary.
    @return The employee's salary.
    */
    public double getSalary() {
        return salary;
    }

    /**
    Returns the employee's weekly salary.
    @return The employee's weekly salary.
    */
    public double getWeeklySalary() {
        return salary / 52;
    }

    /**
    Sorts the employees in ascending order by salary.
    @return The result of comparing two employees.
    */
    public int compareTo(Employee other) {
        int result = 0;
        if (salary < other.salary) {
            result = -1;
        }
        else if (salary > other.salary) {
            result = 1;
        }
        return result;
    }

    /**
    Updates the salary of the employee.
    @param salaryIn The employee's salary.
    */
    public void setSalary (double salaryIn) {
      salary = salaryIn;
    }

    /**
    Adjusts and updates the salary of the employee.
    @param percentage The percent increase in salary.
    */
    public void adjustSalary (double percentage) {
      salary = salary * (1 + percentage);
    }
}

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



```
public class MergeDriver implements Serializable{
    public static void main(String[] args)throws IOException {
        //try{
     ObjectOutputStream  oos = new ObjectOutputStream(new 
FileOutputStream("Merged.dat"));
     /*Scanner sc = new Scanner(System.in);
     System.out.print("Enter the File Name\n");
     String fName = sc.nextLine();
     System.out.print("Enter the File Name\n");
     String fName2 = sc.nextLine();*/

     //try{
     Scanner scf = new Scanner(new File("SaintJohn.txt"));
     Scanner scf2 = new Scanner(new File("Fredericton.txt"));


     Scanner scl =  new Scanner(scf.nextLine());
     scl.useDelimiter(";");
     double salary = Double.parseDouble(scl.next().substring(1));
     String family_name = scl.next();
     String name = scl.next();
     Employee temp1 = new Employee(name + " " + family_name, salary);
     Scanner sc2 =  new Scanner(scf2.nextLine());
     sc2.useDelimiter(";");
     double Salary2 = Double.parseDouble(sc2.next().substring(1));
     String family_name2 = sc2.next();
     String name2 = sc2.next();
     Employee temp2 = new Employee(name2 + " " + family_name2, Salary2);
     while(scf.hasNext() && scf2.hasNext()){
     if(temp1.compareTo(temp2)<0){
         oos.writeObject(temp1);
         scl =  new Scanner(scf.nextLine());
         scl.useDelimiter(";");
         salary = Double.parseDouble(scl.next().substring(1));
         family_name = scl.next();
         name = scl.next();
         temp1 = new Employee(name + " " + family_name, salary);
     }
     else {
         oos.writeObject(temp2);
         sc2 =  new Scanner(scf2.nextLine());
         sc2.useDelimiter(";");
         Salary2 = Double.parseDouble(sc2.next().substring(1));
         family_name2 = sc2.next();
         name2 = sc2.next();
         temp2 = new Employee(name2 + " " + family_name2, Salary2);
        }
     }
     boolean eof1=false;
```



```
     boolean eof2=false;

      while(!eof1){
          try{
        scl =  new Scanner(scf.nextLine());
        scl.useDelimiter(";");
        salary = Double.parseDouble(scl.next().substring(1));
        family_name = scl.next();
        name = scl.next();
        temp1 = new Employee(name + " " + family_name, salary);
        oos.writeObject(temp1);}
        catch(NoSuchElementException e){
            eof1 =true;
        }
    }
     while(!eof2){
         try{
        sc2 =  new Scanner(scf2.nextLine());
        sc2.useDelimiter(";");
        Salary2 = Double.parseDouble(sc2.next().substring(1));
        family_name2 = sc2.next();
        name2 = sc2.next();
        temp2 = new Employee(name2 + " " + family_name2, Salary2);
        oos.writeObject(temp2);
         }
         catch(NoSuchElementException e){
            eof2 =true;
         }
     }
    //}
    /*catch(FileNotFoundException e){
        System.out.println("File is not found");
    }
    catch (IOException e1) {
        System.out.println("A problem has occured with writing");
    }
    System.out.println("File is not found");*/
    }
}
import java.io.Serializable;
import java.io.*;
import java.text.NumberFormat;
import java.util.Locale;
public class ReadWriterDriver implements Serializable{
    public static void main(String[] args)throws IOException,
ClassNotFoundException{

        Locale enLocale = new Locale("en", "US");
        NumberFormat formatter = NumberFormat.getCurrencyInstance(enLocale);
        ObjectInputStream ois = new ObjectInputStream(new
FileInputStream("Merged.dat"));
        boolean eof = false;
        File output = new File("Merged.txt");
        FileWriter fr = new FileWriter(output);
        while(!eof){
            try{
            Employee emp = (Employee)(ois.readObject());
            fr.write(formatter.format(emp.getSalary())+" -
"+emp.getName()+"\n");
            }
            catch(EOFException e){
                eof = true;
            }

        }
        fr.close();

    }
}
```

Output(Merged.txt):

```
$22,100.00 - Betty James

$23,125.12 - Kelsey Locke

$24,367.43 - Sandra Davidson

$25,375.00 - Ken Wood

$26,375.00 - Jill Jones

$26,899.71 - Luke Patterson

$27,234.45 - Laura Miller

$27,255.56 - Lisa Paul

$28,256.31 - Kelly Dawn Wheeler

$28,367.31 - June McLean

$29,782.67 - Robert Hallett

$31,389.00 - Hank Richardson

$31,879.50 - Lloyd Webster

$32,000.00 - Kelly Jones

$32,455.27 - Jake Stephenson

$33,281.78 - Peter MacKenzie
```

$33,672.75 - Tristen MacDonald

$34,567.23 - Troy London

$35,764.00 - Lyle Barnes

$36,862.44 - Monique Labelle

$36,877.35 - Judy Gorman

$37,255.26 - Fred Brewster

$37,975.11 - Olivia Webb

$38,675.00 - David Boone

$40,000.00 - Zelda Shaw

$40,500.00 - Brian Su

$41,000.50 - Kendra Coughlan

$43,678.29 - Juliana Lopez

$44,356.25 - Melanie Andover

$44,525.50 - Kyle Robertson

$45,652.80 - Mary Ann Clarke

$45,900.00 - Dan Baker

$48,350.00 - Sharron McWaid

$48,900.00 - John Doe

$50,000.00 - Gordon Parker

$52,175.50 - Denise Preston-White

$52,756.28 - Claire Anderson

$55,234.12 - Vance Sheppard

$59,768.00 - Lise Guitard

$61,900.00 - David Fields

$62,495.00 - Doug Turner

$62,745.00 - Eric C. Underhill

$63,727.29 - Vincent Bagley

$68,200.00 - Karen Hatfield

$69,450.00 - Wesley Rideout

$76,850.00 - Charles R. Webber

$80,654.23 - Bliss Seeley

$82,363.85 - Ivan Shaw

$85,900.00 - Marcie Smith

$96,783.11 - Jennifer Smith-Preston

$106,500.00 - Janet Whitfield

$112,875.00 - Penny Friedman

$124,500.00 - Marnie Valentine

$126,434.26 - Linda Ogilvie

$127,892.73 - Kevin Orser

$141,837.27 - Nathan Young

Please note that whenever I use try and catch blocks with IOExceptions, my program automatically throws a File not found exception, so in order for me to run it, I added the “throws IOException” clause in front of the main method declaration and I kept my try and it’s catch blocks in comments