Advance Java Fa 2

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SEPTEMBER 20

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CTU training solutions
Authored by: Albert Michael Ludick

Logo
Name

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Completed Declaration of Authenticity

I _____ALbert Michael Ludick_____ hereby
(FULL NAME)

declare that the contents of this assignment __Fa 2 advance java__ is entirely my own
work except for the following documents: (List the documents and page numbers of work in this
portfolio that were generated in a group)

Activity	Date
made the contacts list app	2020/09/20
and the artists app	2020/09/20

Signature: ____AlbertLudick____ Date: __2020/09/20__

Introduction:

<u>Question 1</u>

Write a Java GUI application that will keep track of a user's contact list. The application must contain the contact mobile number, work number and email address.

1. On the form, create a list box that will allow the user to select a contact name. Also create a search button that when clicked will display the mobile number, work number and email address.

2. Create a sequential file (contacts.txt) that contains data for the following fields:

   a. The contact name;

   b. The contact mobile number;

   c. The contact work number;

   d. The contact email address.

```
File  Edit  Format  View  Help
Isaac
0789026562
0113652145
isaac@gmail.com
Mark
0789026589
0123654789
mark@gmail.com
Peter
0788954726
0132365412
peter@gmail.com
Sbu
0788945698
0215463548
sbu@gmail.com
------------------------------------
```

3. Load the data from the contacts.txt file and populate the text fields with the contact names. Include a feature to inform the user on the amount of contacts.

Question 2

Create a two-dimensional array to contain the three sale items for five different artists. A single array must be used to store the artist names.

ARTIST NAME	CD SALES	DVD SALES	BLU RAY SALES
Ed Sheeran	900 000	800 000	500 000
Pink	700 000	500 000	500 000
Bruno Mars	800 000	100 000	50 000
Foo Fighters	100 000	200 000	200 000
Taylor Swift	300 000	100 000	50 000

Allow a user to enter in a number, ranging from 1 to 5, which will represent the artist position with regards to the album sales. The program can only when user enter a number greater than Printout the artist name including the CD, DVD, BLU RAY sales amounts and total sales.

[50]

Expected Output

```
Artist Name        CD Sales          DVD Sales          Blue Ray Sale    Total
_____
1. Ed Sheeran      900000            800000             500000           2200000
2. Pink            700000            500000             500000           3900000
3. Bruno Mars      800000            100000             50000            4850000
4. Foo Fighters    100000            200000             200000           5350000
5. Taylor Swift    800000            100000             50000            6300000

_____
        Total      3300000           5000000            6300000
Enter a number Between 1 and 5 :
1
Artist Name: Pink
CD Sale: 700000
DVD Sales: 500000
Blue Ray Sale: 500000     Total: 1700000
Enter a number Between 1 and 5 :
```

Content:

Running App:

Question1:

Question 2:

```
Debugger Console  X    Fa2 Project (run)  X

run:
Artist Name     CD Sale    DVD Sale    Blu Ray Sale    Total
------------------------------------------------------------
1. Ed Sheeran    700000   500000            500000   3900000
2. Pink          800000   100000             50000   4850000
3. Bruno Mars    100000   200000            200000   5350000
4. Foo Fighter   800000   100000             50000   6300000
------------------------------------------------------------
       Total   2500000 1600000            1250000
Enter a number between 1 and 5:
```

```
Debugger Console  X    Fa2 Project (run)  X

.........  ......    .. ....    ... ....    ... ... ....    ......
------------------------------------------------------------
1. Ed Sheeran    700000   500000            500000   3900000
2. Pink          800000   100000             50000   4850000
3. Bruno Mars    100000   200000            200000   5350000
4. Foo Fighter   800000   100000             50000   6300000
------------------------------------------------------------
       Total   2500000 1600000            1250000
Enter a number between 1 and 5:
1
Artist Name: Pink
CD Sale: 700000
DVD Sale: 500000
Blu Ray Sale: 500000    Total:5350000
```

Code:

Question1:

```
/*
 * To change this license header, choose License Headers in Project Properties.
 * To change this template file, choose Tools | Templates
 * and open the template in the editor.
 */
package fa2.project;

import java.io.File;
import java.io.FileNotFoundException;
import java.nio.charset.StandardCharsets;
import java.util.Scanner;
import javax.swing.JOptionPane;
```

```
/**
 *
 * @author albert michael ludick
 */
public class Fa2Project {

    /**
     * @param args the command line arguments
     */
    public static void main(String[] args) throws FileNotFoundException {
        // TODO code application logic here
        ContactsList list = new ContactsList();
        list.setVisible(true);
        //-----------------------------------------------
        System.out.print("Artist Name");
        System.out.print("   CD Sale");
        System.out.print("   DVD Sale");
        System.out.print("   Blu Ray Sale");
        System.out.println("   Total");
        System.out.println("------------------------------------------------------------------");
        //-----------------------------------------------------------------
        String[][] artistArray = new String[5][4];
        String[] Artist = new String[5];
        File file = new File("Artists.txt");
        Scanner scanner=null;
        try{
            scanner = new Scanner(file,StandardCharsets.UTF_8.name());
            for(int i=0;scanner.hasNext();i++){
```

```java
try{
    scanner = new Scanner(file,StandardCharsets.UTF_8.name());
    for(int i=0;scanner.hasNext();i++){
        String[] lines = scanner.nextLine().split(",");
        Artist[i]=lines[0];
        artistArray[i][0] = lines[1];
        artistArray[i][1] = lines[2];
        artistArray[i][2] = lines[3];
        artistArray[i][3] = lines[4];
    }
    int i =0;
    for (String item : Artist) {
        ++i;
        if(i!=5)
        System.out.println(i+"."+" "+item+" "+"\t"+artistArray[i][0]
                        +" "+"\t"+artistArray[i][1]+"   "
                            +"\t"+artistArray[i][2]
                                +" "+"\t"+artistArray[i][3]);
    }
    System.out.println("-----------------------------------------------------------------");
    int cdSale=0;
    int dvdSale=0;
    int bluRaySale=0;
    for(int k=0;k<4;k++){
        if(k!=4){
    cdSale=cdSale+Integer.parseInt(artistArray[k][0]);
    dvdSale=dvdSale+Integer.parseInt(artistArray[k][1]);
```
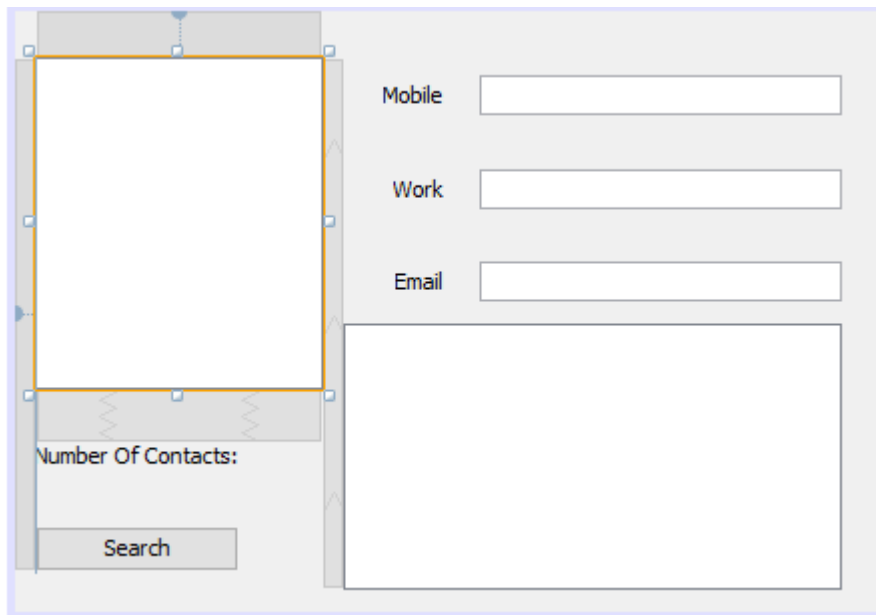
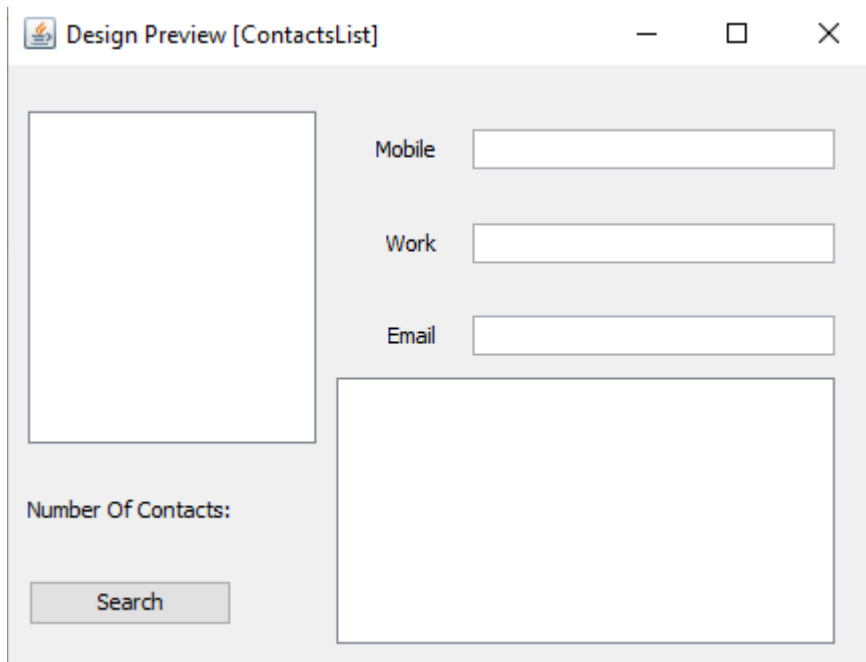```java
        for(int k=0;k<4;k++){
                if(k!=4){
         cdSale=cdSale+Integer.parseInt(artistArray[k][0]);
         dvdSale=dvdSale+Integer.parseInt(artistArray[k][1]);
         bluRaySale=bluRaySale+Integer.parseInt(artistArray[k][2]);
           }
        }
        System.out.println("   Total "+" "+cdSale+" "+dvdSale
                                                +"   "
                                                    +bluRaySale);
        int totale=cdSale+dvdSale+bluRaySale;
        System.out.println("Enter a number between 1 and 5: ");
        scanner = new Scanner(System.in);
        int userAns=scanner.nextInt();
        System.out.println("Artist Name: "+Artist[userAns]);
        System.out.println("CD Sale: "+artistArray[userAns][0]);
        System.out.println("DVD Sale: "+artistArray[userAns][1]);
        System.out.println("Blu Ray Sale: "+artistArray[userAns][2]
                                       +"   Total:"+totale);
}catch(FileNotFoundException ex){
    JOptionPane.showMessageDialog(null, ex,"Error Message"
                    ,JOptionPane.ERROR_MESSAGE);
}finally {
   if (scanner != null) scanner.close();
  }
}
```

## Question2:

```java
/*
 * To change this license header, choose L
 * To change this template file, choose To
 * and open the template in the editor.
 */
package fa2.project;
import java.io.File;
import java.io.FileNotFoundException;
import java.nio.charset.StandardCharsets;
import java.util.Scanner;
import javax.swing.DefaultListModel;
import javax.swing.JOptionPane;
```

```java
/**
 *
 * @author albert michael ludick
 */
public class ContactsList extends javax.swing.JFrame {
private static final String[][] Multiarray=new String[104][4];
private final  DefaultListModel<String> model = new DefaultListModel<>();
    /**
     * Creates new form ContactsList
     */
    public ContactsList() {
        initComponents();
        FileReader("Contacts.txt");
        lblNumOfContacts.setText("Number Of Contacts: "
                +model.getSize());
    }
    /**
     * This method is called from within the constructor to initialize the form.
     * WARNING: Do NOT modify this code. The content of this method is always
     * regenerated by the Form Editor.
     */
    @SuppressWarnings("unchecked")
    Generated Code
```

```java
private void btnSearchActionPerformed(java.awt.event.ActionEvent evt) {
    if(lbContacts.getSelectedIndex()<0){
        JOptionPane.showMessageDialog(null, "you hvae selected nothing "
                                            + "from the contact list");
    }else{
        taResult.setText(null);
        taResult.append("Searching for "+lbContacts.getSelectedValue()
                +" in file... "+"\n"
                +lbContacts.getSelectedValue()+" was found on line "
                +(lbContacts.getSelectedIndex()+1)
                +"\n"+"------------------------------");
        try
            {
                txtMobile.setText(null);
                txtMobile.setText(Multiarray[lbContacts.getSelectedIndex()]
                        [0]);
                txtWork.setText(null);
                txtWork.setText(Multiarray[lbContacts.getSelectedIndex()]
                        [1]);
                txtEmail.setText(null);
                txtEmail.setText(Multiarray[lbContacts.getSelectedIndex()]
                        [2]);
            }
        catch (ArrayIndexOutOfBoundsException ex)
            {
```

```java
private void btnSearchActionPerformed(java.awt.event.ActionEvent evt) {
    if(lbContacts.getSelectedIndex()<0){
        JOptionPane.showMessageDialog(null, "you hvae selected nothing "
                                            + "from the contact list");
    }else{
        taResult.setText(null);
        taResult.append("Searching for "+lbContacts.getSelectedValue()
                +" in file... "+"\n"
                +lbContacts.getSelectedValue()+" was found on line "
                +(lbContacts.getSelectedIndex()+1)
                +"\n"+"-------------------------------");
        try
            {
                txtMobile.setText(null);
                txtMobile.setText(Multiarray[lbContacts.getSelectedIndex()]
                        [0]);
                txtWork.setText(null);
                txtWork.setText(Multiarray[lbContacts.getSelectedIndex()]
                        [1]);
                txtEmail.setText(null);
                txtEmail.setText(Multiarray[lbContacts.getSelectedIndex()]
                        [2]);
            }
        catch (ArrayIndexOutOfBoundsException ex)
        {
            JOptionPane.showMessageDialog(null, ex,"Error Message"
                    ,JOptionPane.ERROR_MESSAGE);
        }
    }
}
```

```java
/**
 * @param args the command line arguments
 */
public static void main(String args[]) {
    /* Set the Nimbus look and feel */
    Look and feel setting code (optional)

    /* Create and display the form */
    java.awt.EventQueue.invokeLater(new Runnable() {
        public void run() {
            new ContactsList().setVisible(true);
        }
    });
}
```

```java
private void FileReader(String path){//net nog die jlist klaar maak
    Scanner scanner=null;
    try{
        File file = new File(path);
        scanner = new Scanner(file.getAbsoluteFile()
                            ,StandardCharsets.UTF_8.name());
        for(int i=0;scanner.hasNext();i++){
            String[] lines = scanner.nextLine().split(",");
            Multiarray[i][0] = lines[1];
            Multiarray[i][1] = lines[2];
            Multiarray[i][2] = lines[3];
            model.addElement(lines[0]);
            lbContacts.setModel(model);
        }
    }catch(FileNotFoundException  ex){
        JOptionPane.showMessageDialog(null, ex,"Error Message"
                        ,JOptionPane.ERROR_MESSAGE);
    }
    finally {
       if (scanner != null) scanner.close();
    }
}
```

```java
// Variables declaration - do not modify
private javax.swing.JButton btnSearch;
private javax.swing.JLabel jLabel1;
private javax.swing.JLabel jLabel2;
private javax.swing.JLabel jLabel3;
private javax.swing.JScrollPane jScrollPane1;
private javax.swing.JList<String> lbContacts;
private javax.swing.JScrollPane lbContacts1;
private javax.swing.JLabel lblNumOfContacts;
private javax.swing.JTextArea taResult;
private javax.swing.JTextField txtEmail;
private javax.swing.JTextField txtMobile;
private javax.swing.JTextField txtWork;
// End of variables declaration
```

Conclusion:

I made the contacts app to work as it should and the console app works just as well.

References:

Websites:

https://www.geeksforgeeks.org/arrays-in-java/

https://www.tutorialspoint.com/java/java_arrays.htm

books:

Java The Complete Reference - 10th Edition (PDFDrive.com)

NetBeans IDE 8 Cookbook.pdf (PDFDrive.com)

Java.Programming.From.Problem.Analysis.to.Program.Design.4th.Edition

Appendix:

Completed Declaration of Authenticity

I ___ALbert Michael Ludick___ hereby
(FULL NAME)

declare that the contents of this assignment ___Fa 2 advance java___ is entirely my own work except for the following documents: (List the documents and page numbers of work in this portfolio that were generated in a group)

Activity	Date
made the contacts list app	2020/09/20
and the artists app	2020/09/20

Signature: ___ALbertLudick___ Date: 2020/09/20