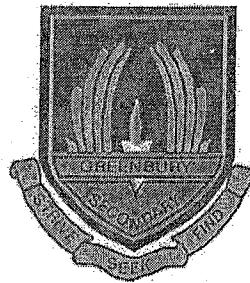


basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA



JUNE EXAMINATION 2015

INFORMATION TECHNOLOGY P1

GRADE 11

EXAMINER: M PADAYACHEE

DURATION: 3HRS

MARKS: 150

MODERATOR: S NAIDOO

DATE: 11 – 06 - 2015

INSTRUCTIONS TO LEARNERS:

1. Ensure that this paper contains 6 pages and 3 questions.
2. Answer all questions.
3. Save your work at every 10 minute interval.
4. Ensure that your work is being saved in the folder you are going to submit for marking.
5. Take heed of the time stipulation for each question. Follow it to avoid incomplete answers.
6. Check your exam folder and ensure that you have the following files :
 - A Netbeans project called **June2015G11** that contains:
 - A package called **JunePack**
 - A frame class called **Q1Frame**
 - A class called **CreditClass**
 - A frame class called **CreditFrame**
 - A text file called **Credit.txt**
7. Insert your name in the first line of every class.

QUESTION ONE [50 min]

You are requested to develop apps to assist in the management of the media centre.

The first app that your help is required in is the app designed by the learners to aid the process of calculating charges for the photocopier.

The school has a pricing system based on the grades and the number of copies made, for each learner and teacher that may use the system. Educators will only pay for colour copies as stated below.

The learners will pay as follows:

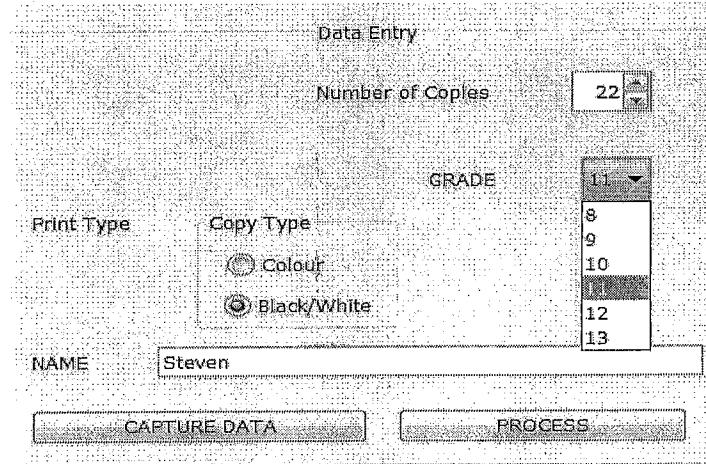
GRADE 8 AND 9	<ul style="list-style-type: none">• 50c per copy for <=15 copies• An additional 30c is charged for every copy more than 15• For every copy more than 50copies, an additional R1 is charged.
GRADE 10 AND 11	<ul style="list-style-type: none">• 80c for every copy <=25 copies.• Additional 50c per copy for more than 25 copies• R1.20 is charged for every copy over 50 copies
GRADE 12	<ul style="list-style-type: none">• The first 15 copies is free• From 16 to 35 copies, a charge of R1.10 is charged per copy• An additional cost of 50c per copy is charged for copies above 35

Nb. Each colour copy costs R4 per colour copy. Colour copies are only made for teachers.

Open the project June2015G11 and execute the Q1Frame. The program has no functionality.

Insert your name as a comment in the first line of each class.

Study the GUI below and complete the code for the respective buttons and components.



1.1. Program the components in the **Data Entry** panel as follows:

- 1.1.1. Format the jPanel3 to a border entitled **Quotation**. (3)
- 1.1.2. Set the spinner in the from 0 to 100, type integer, using the properties window. (3)
- 1.1.3. Set the combo box to select the grade(8 – 13) as integers. (3)
- 1.1.4. Initialise the radio buttons into the same group. (3)
- 1.1.5. Place a title at the top of jPanel1 that reads: "Photocopy Application" (3)

1.2. Declare the global variables for the following data entries in the Q1Frame class.

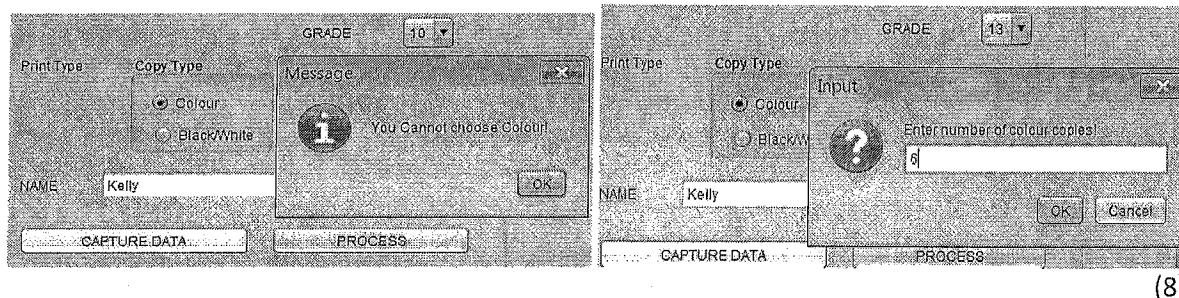
(3)

Name of Identifier	Type	Description
numCopies	Integer value	The number of copies made by the client – accessed from spinner
gr	Integer	A value in the range 8 to 13 – combo box selection. Nb. 13 represents a teacher
name	Text	The name of the client – JTextField
numBlack	Integer	The number of black copies made – JTextField
numCol	Integer	The number of colour copies.

1.3. Write code, for the **CAPTURE DATA** button in the **Data Entry** panel, that assigns the values upon entry to the global variables.

Note:

- ✓ The number for colour must be entered only if Colour radio button is selected.
- ✓ If Black/White is selected, the number is taken from the text field on the top.
- ✓ If a learner selects a colour photocopy, display a suitable message to ask them to reselect.



(8)

1.4. Program the **PROCESS** button to calculate the price that the client must pay. Take note of the following:

- Teachers will only pay for colour copies. Black and white copies are free for teachers. Therefore the number of copies for teachers will be for colour only.

Use the sample run below:

Data Entry		Quotation	
<input type="text" value="Number of Copies"/> 9		<input type="button" value="Print Quote"/>	
Print Type Copy Type		NAME :MR Naidoo TEACHER NUM of Black Copies :4 NUM of Colour Copies :5 PRICE :R20.00	
<input checked="" type="radio"/> Colour <input type="radio"/> Black/White		GRADE 13	
NAME MR Naidoo		<input type="button" value="CAPTURE DATA"/> <input type="button" value="PROCESS"/>	

Data Entry		Quotation	
Number of Copies	3	Print Quote	
Print Type	GRADE	NAME :Peter	
Copy Type	11	GRADE :11	
		NUM of Black Copies :3	
<input type="radio"/> Colour		NUM of Colour Copies :0	
<input checked="" type="radio"/> Black/White		PRICE :R2.40	
NAME	Peter		
CAPTURE DATA		PROCESS	

(8)

- 1.5. Program the Print Quote button in the Quotation panel to display the output as shown in the sample run. (6)

Quotation	
NAME :Daniel	
TEACHER	
NUM of Black Copies :9	
NUM of Colour Copies :5	
PRICE :R20.00	

[40]

QUESTION TWO

The school wants to offer a credit option to teachers. You are to assist the software developers by writing the appropriate methods to make the application more effective.

You have been supplied with the **GUI** and the **object class** in which you are required to write the necessary methods. You have also been supplied with a text file that contains details of each teacher who has taken a loan. Study the text file called “**Credit.txt**” shown below:

```

PillayD;650;930;0;700;450
MoodleyS;1100;300;450;1200;500
TerryW;0;780;0;200;650
DeonundA;0;0;220;1100;0
Rambally;1600;800;0;700;250

```

Open the **Credit** class and the **CreditFrame** class and execute them both. Both the object class and the GUI class do not have any functionality. Write the respective code to provide functionality to the buttons as requested in the questions below:

2.1. Open the object class and insert code as requested below:

2.1.1. Declare the following instance variables:

- A one dimensional string array that will hold the **teacherID**.
- A two dimensional array called **amntOwed** to store the amount owed for each day of the week(school week) by each teacher.
- A one dimensional array that stores a weekly payment made by the teacher(**payment**). (3)

- 2.1.2. Write the accessor methods to return the three arrays declared above. (6)
- 2.1.3. Write a void method called **fillArrays** that will open the text file and fill each of the instance variables with the respective Values from the texfile. (15)
- 2.1.4. Write a return method called **totalOwed** to return an array with the total amount owed for the week by each teacher. (6)
- 2.1.5. Write a void method called **sortCredits** to sort the **totalOwed** and **teacherID** arrays in descending order of amount owed for the week. (7)
- 2.1.6. Write a return method called **teacherSearch** that will search for an ID entered by the user and return a string containing all the details.
e.g. "PillayS , 12.50 , 11.00 , 9.00 , 0.00 , 4.00" (7)

2.2. Open the frame class and insert code to interact with the object class in the following way:

- 2.2.1. In the variable section, declare the object globally that will be used as an instance of the Credit class. (2)
- 2.2.2. In the button called **Fill Arrays**, call the method that extracts the arrays from the text file and display them in a tabular form in the text area. (9)
- 2.2.3. Program the button called **See Total For Week** by calling the method **totalOwed** to return the total array and then display the code of each teacher and the amount owed for the week. (7)
- 2.2.4. Code the button **sortCredits** to display the sorted data neatly in the text area. (7)
- 2.2.5. Program the button **Search for Teacher** displaying all the details of the teacher if it is found. Allow the user to input the Teacher code and use this code to search. If the teacher is not found, display a suitable message. (7)

[75]

QUESTION THREE

A database **DBTeacher** needs to be created where there is only one table called **TeachersTBL**. This table contains the following fields for each teacher:

- The teacherID – The teacher's initials followed by any three digits(**teachID**).
- The teachers amount owing. – the amount the teacher is owing(**owingAMT**)
- The teacher's payment made – if the teacher does make a payment(**payment**).

You are expected to :

- 3.1. Create a database called **DBTeacher** in Netbeans services tab. (2)
- 3.2. Create a table in the DBTeacher database called TeacherTBL. Use the fields given above. (7)
- 3.3. Populate the database table with meaningful data. You may use specific data from the text file or create your own. (3)

3.4. In the project called **June2015G11**, create a new jframe called **JunQ3** in the **JunePack** package and add a panel to it. (3)

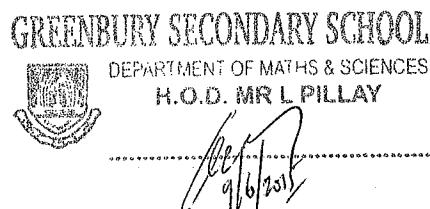
3.5. Add a table component and bind the table to the database table. Ensure that the persistence class in the META-INF folder has the correct path specification for the database. Copy the database to the project folder. Compile and run it. (12)

3.6. Add to the panel the respective text fields and the labels for the data in the jTable. (4)

3.6. Bind each textfield to the respective values in the table. (4)

[35]

TOTAL = 150



```
1 /*
2 * To change this template, choose Tools | Templates
3 * and open the template in the editor.
4 */
5 package JunePack;
6
7 import javax.swing.JOptionPane;
8
9 /**
10 *
11 * @author comp13
12 */
13 import java.text.*;
14 public class Q1Frame extends javax.swing.JFrame {
15
16 /**
17 * Creates new form Q1Frame
18 */
19 private int numCopies;
20 private int numBlack;
21 private int numCol;
22 private int gr;
23 private String name;
24 private double price = 0.00;
25 DecimalFormat d = new DecimalFormat("0.00");
26 public Q1Frame() {
27     initComponents();
28     this.setLocationRelativeTo(null);
29     this.setTitle("Photocopy Application");
30 }
31 }
32
33 /**
34 * This method is called from within the constructor to initialize the form.
35 * WARNING: Do NOT modify this code. The content of this method is always
36 * regenerated by the Form Editor.
37 */
38 @SuppressWarnings("unchecked")
39 // <editor-fold defaultstate="collapsed" desc="Generated Code">
40 private void initComponents() {
41
42     buttonGroup1 = new javax.swing.ButtonGroup();
43     jLabel5 = new javax.swing.JLabel();
44     JPanel1 = new javax.swing.JPanel();
45     JPanel2 = new javax.swing.JPanel();
46     jLabel1 = new javax.swing.JLabel();
47     jSpinner1 = new javax.swing.JSpinner();
48     jLabel2 = new javax.swing.JLabel();
49     jComboBox1 = new javax.swing.JComboBox();
50     JPanel4 = new javax.swing.JPanel();
51     jRadioButton1 = new javax.swing.JRadioButton();
52     jRadioButton2 = new javax.swing.JRadioButton();
53     jLabel3 = new javax.swing.JLabel();
54     jLabel4 = new javax.swing.JLabel();
55     jTextField1 = new javax.swing.JTextField();
56     jButton1 = new javax.swing.JButton();
57     jButton2 = new javax.swing.JButton();
58     JPanel3 = new javax.swing.JPanel();
59     jScrollPane1 = new javax.swing.JScrollPane();
60     jTextArea1 = new javax.swing.JTextArea();
61     jButton3 = new javax.swing.JButton();
```

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DEPARTMENT OF MATHS & SCIENCES
H.O.D. MR L PILLAY

```
62     jLabel5.setText("jLabel5");
63
64     setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);
65
66     jPanel2.setBorder(javax.swing.BorderFactory.createTitledBorder(null, "Data Entry",
67 javax.swing.border.TitledBorder.CENTER, javax.swing.border.TitledBorder.DEFAULT_POSITION));
68
69     jLabel1.setText("Number of Copies");
70
71     jSpinner1.setModel(new javax.swing.SpinnerNumberModel(0, 0, 100, 1));
72
73     jLabel2.setText("GRADE");
74
75     jComboBox1.setModel(new javax.swing.DefaultComboBoxModel(new String[] { "8", "9", "10", "11", "12", "13" }));
76
77     jPanel4.setBorder(javax.swing.BorderFactory.createTitledBorder("Copy Type"));
78
79     buttonGroup1.add(jRadioButton1);
80     jRadioButton1.setText("Colour");
81
82     buttonGroup1.add(jRadioButton2);
83     jRadioButton2.setText("Black/White");
84
85     javax.swing.GroupLayout jPanel4Layout = new javax.swing.GroupLayout(jPanel4);
86     jPanel4.setLayout(jPanel4Layout);
87     jPanel4Layout.setHorizontalGroup(
88         jPanel4Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
89             .addGroup(jPanel4Layout.createSequentialGroup()
90                 .addGap(36, 36, 36)
91                 .addGroup(jPanel4Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING)
92                     .addComponent(jRadioButton1)
93                     .addComponent(jRadioButton2))
94                 .addGap(36, 36, 36)
95                 .addGroup(jPanel4Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
96                     .addComponent(jRadioButton1)
97                     .addComponent(jRadioButton2)))
98     );
99     jPanel4Layout.setVerticalGroup(
100         jPanel4Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
101             .addGroup(jPanel4Layout.createSequentialGroup()
102                 .addGap(36, 36, 36)
103                 .addComponent(jRadioButton1)
104                 .addGap(36, 36, 36)
105                 .addComponent(jRadioButton2))
106     );
107
108     jLabel3.setText("Print Type ");
109
110     jLabel4.setText("NAME");
111
112     jButton1.setText("CAPTURE DATA");
113     jButton1.addActionListener(new java.awt.event.ActionListener() {
114         public void actionPerformed(java.awt.event.ActionEvent evt) {
115             jButton1ActionPerformed(evt);
116         }
117     });
118
119     jButton2.setText("PROCESS");
120     jButton2.addActionListener(new java.awt.event.ActionListener() {
121         public void actionPerformed(java.awt.event.ActionEvent evt) {
```

```
122     jButton2ActionPerformed(evt);
123   }
124 });
125
126 javax.swing.GroupLayout jPanel2Layout = new javax.swing.GroupLayout(jPanel2);
127 jPanel2.setLayout(jPanel2Layout);
128 jPanel2Layout.setHorizontalGroup(
129     jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
130         .addGroup(jPanel2Layout.createSequentialGroup()
131             .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
132                 .addGroup(jPanel2Layout.createSequentialGroup()
133                     .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
134                         .addGroup(jPanel2Layout.createSequentialGroup()
135                             .addComponent(jLabel4, javax.swing.GroupLayout.PREFERRED_SIZE, 58,
136                             javax.swing.GroupLayout.PREFERRED_SIZE)
137                             .addComponent(jLabel3))
138                         .addGroup(jPanel2Layout.createSequentialGroup()
139                             .addGap(10, 10, 10)
140                             .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
141                                 .addGroup(jPanel2Layout.createSequentialGroup()
142                                     .addGap(10, 10, 10)
143                                     .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
144                                         .addGroup(jPanel2Layout.createSequentialGroup()
145                                             .addComponent(jLabel2, javax.swing.GroupLayout.PREFERRED_SIZE, 58,
146                                             javax.swing.GroupLayout.PREFERRED_SIZE)
147                                             .addComponent(jComboBox1, javax.swing.GroupLayout.Alignment.TRAILING, javax.swing.GroupLayout.PREFERRED_SIZE,
148                                             javax.swing.GroupLayout.PREFERRED_SIZE)
149                                             .addComponent(jSpinner1, javax.swing.GroupLayout.Alignment.TRAILING, javax.swing.GroupLayout.PREFERRED_SIZE,
150                                             javax.swing.GroupLayout.PREFERRED_SIZE)
151                                             .addComponent(jTextField1))
152                                         .addGroup(jPanel2Layout.createSequentialGroup()
153                                             .addGap(10, 10, 10)
154                                             .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
155                                                 .addGroup(jPanel2Layout.createSequentialGroup()
156                                                     .addGap(10, 10, 10)
157                                                     .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
158                                                         .addGroup(jPanel2Layout.createSequentialGroup()
159                                                         .addComponent(jButton1, javax.swing.GroupLayout.PREFERRED_SIZE, 198,
160                                                         javax.swing.GroupLayout.PREFERRED_SIZE)
161                                                         .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
162                                                             .addGroup(jPanel2Layout.createSequentialGroup()
163                                                               .addGap(10, 10, 10)
164                                                               .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
165                                     .addGroup(jPanel2Layout.createSequentialGroup()
166                                         .addGap(10, 10, 10)
167                                         .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
168                                           .addGroup(jPanel2Layout.createSequentialGroup()
169                                             .addComponent(jLabel1)
170                                             .addComponent(jSpinner1, javax.swing.GroupLayout.PREFERRED_SIZE, 30,
171                                             javax.swing.GroupLayout.PREFERRED_SIZE)
172                                             .addComponent(jComboBox1, javax.swing.GroupLayout.PREFERRED_SIZE, 32,
```

```
javax.swing.GroupLayout.PREFERRED_SIZE)
173     .addComponent(jLabel2))
174     .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
175     .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
176         .addComponent(jLabel3)
177         .addComponent(jPanel4, javax.swing.GroupLayout.PREFERRED_SIZE,
178             javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
179     .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED,
180         javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
181     .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
182         .addComponent(jLabel4)
183         .addComponent(jTextField1, javax.swing.GroupLayout.PREFERRED_SIZE,
184             javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
185         .addComponent(jButton1)
186         .addComponent(jButton2))
187     .addContainerGap())
188 );
189 jPanel3.setBorder(javax.swing.BorderFactory.createTitledBorder(null, "Quotation",
190 javax.swing.border.TitledBorder.CENTER, javax.swing.border.TitledBorder.DEFAULT_POSITION));
191
192 jTextField1.setColumns(20);
193 jTextField1.setRows(5);
194 jScrollPane1.setViewportView(jTextField1);
195
196 jButton3.setText("Print Quote");
197 jButton3.addActionListener(new java.awt.event.ActionListener() {
198     public void actionPerformed(java.awt.event.ActionEvent evt) {
199         jButton3ActionPerformed(evt);
200     }
201 });
202 javax.swing.GroupLayout jPanel3Layout = new javax.swing.GroupLayout(jPanel3);
203 jPanel3.setLayout(jPanel3Layout);
204 jPanel3Layout.setHorizontalGroup(jPanel3Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
205     .addGroup(jPanel3Layout.createSequentialGroup()
206         .addGroup(jPanel3Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING)
207             .addGroup(jPanel3Layout.createSequentialGroup()
208                 .addGroup(jPanel3Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
209                     .addGroup(jPanel3Layout.createSequentialGroup()
210                         .addComponent(jButton3, javax.swing.GroupLayout.PREFERRED_SIZE, 161,
211                             javax.swing.GroupLayout.PREFERRED_SIZE))
212                         .addGroup(jPanel3Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
213                             .addComponent(jScrollPane1, javax.swing.GroupLayout.PREFERRED_SIZE, 251,
214                             javax.swing.GroupLayout.PREFERRED_SIZE))
215                         .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
216             .addGroup(jPanel3Layout.createSequentialGroup()
217                 .addGroup(jPanel3Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
218                     .addGroup(jPanel3Layout.createSequentialGroup()
219                         .addGroup(jPanel3Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING)
220                             .addComponent(jButton3)
221                             .addGroup(jPanel3Layout.createSequentialGroup()
222                                 .addComponent(jScrollPane1, javax.swing.GroupLayout.PREFERRED_SIZE, 251,
223                                 javax.swing.GroupLayout.PREFERRED_SIZE)
224                                 .addGroup(jPanel3Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
225                                     .addGroup(jPanel3Layout.createSequentialGroup()
226                                         .addGap(7, 7, 7)))))))
```

```
226     javax.swing.GroupLayout jPanel1Layout = new javax.swing.GroupLayout(jPanel1);
227     jPanel1.setLayout(jPanel1Layout);
228     jPanel1Layout.setHorizontalGroup(
229         jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
230             .addGroup(jPanel1Layout.createSequentialGroup()
231                 .addGap(29, 29, 29)
232                 .addComponent(jPanel2, javax.swing.GroupLayout.PREFERRED_SIZE,
233                     javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
234                 .addGap(18, 18, 18)
235                 .addComponent(jPanel3, javax.swing.GroupLayout.PREFERRED_SIZE,
236                     javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
237                 .addGap(18, 18, 18)
238                 .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
239                     .addGroup(jPanel1Layout.createSequentialGroup()
240                         .addGap(42, 42, 42)
241                         .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING)
242                             .addComponent(jPanel3, javax.swing.GroupLayout.PREFERRED_SIZE,
243                                 javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
244                             .addComponent(jPanel2, javax.swing.GroupLayout.PREFERRED_SIZE,
245                                 javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
246                         .addGap(18, 18, 18)
247                         .addComponent(layout = new javax.swing.GroupLayout(getContentPane()));
248                         getContentPane().setLayout(layout);
249                         layout.setHorizontalGroup(
250                             layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
251                             .addGroup(layout.createSequentialGroup()
252                                 .addGap(42, 42, 42)
253                                 .addComponent(jPanel1, javax.swing.GroupLayout.PREFERRED_SIZE,
254                                     javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE,
255                                     Short.MAX_VALUE)
256                                 .addGap(18, 18, 18)
257                                 .addComponent(jPanel1, javax.swing.GroupLayout.PREFERRED_SIZE,
258                                     javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE,
259                                     Short.MAX_VALUE)
260                                 .addGap(18, 18, 18)
261                                 .addComponent(jPanel1, javax.swing.GroupLayout.PREFERRED_SIZE,
262                                     javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
263                                 .addGap(18, 18, 18)
264                                 .pack();
265                         } // </editor-fold>
266
267     private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
268         numCopies = (int)(jSpinner1.getValue());
269         JOptionPane.showMessageDialog(null,numCopies+"");
270         String grd = (String)(jComboBox1.getSelectedItem());
271         gr = Integer.parseInt(grd);
272         name = jTextField1.getText();
273         if(jRadioButton1.isSelected()) {
274             if (gr == 13) {
275                 numCol = Integer.parseInt(JOptionPane.showInputDialog("Enter number of colour copies!"));
276                 numBlack = numCopies - numCol;
277             }
278         } else {
279             numBlack = numCopies;
```

```
281
282     JOptionPane.showMessageDialog(null,"You Cannot choose Colour!");
283 }
284
285
286 }
287 else {
288     numBlack = numCopies;
289 }
290 }
291
292 private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {
293
294     switch (gr) {
295         case 8: case 9: {
296             if(numCopies>15 && numCopies >50){
297                 price = 15*0.5 + 35*0.8 + (numCopies - 50)*1.8;
298             }else {
299                 if(numCopies >15 && numCopies<=50){
300                     price = 15*0.5 + (numCopies -15) *0.8;
301                 }
302                 else{ price = numCopies*0.5;}
303             }
304             } break;
305         case 10: case 11: {
306             if(numCopies>25 && numCopies >50){
307                 price = 15*0.8 + 25*1.3 + (numCopies - 50)*2.5;
308             }else {
309                 if(numCopies >15 && numCopies<=50){
310                     price = 15*0.8 + (numCopies -25) *1.3;
311                 }
312                 else{ price = numCopies*0.8;}
313             }
314             } break;
315         case 12: {
316             if(numCopies>15 && numCopies >35){
317                 price = (35-15)*1.1 + (numCopies - 35)*1.6;
318             }else {
319                 if(numCopies >15 && numCopies<=35){
320                     price = (numCopies -15) *1.1;
321                 }
322             }
323         }
324
325     } break;
326     case 13 : {
327         price = numCol * 4;
328     } break;
329 }
330 }
331 // default: JOptionPane.showMessageDialog(null,"INVALID!");
332 }
333
334 private void jButton3ActionPerformed(java.awt.event.ActionEvent evt) {
335     jTextArea1.append("NAME \t:"+name+"\n");
336     if(gr == 13){
337         jTextArea1.append("TEACHER\n");
338     }
339     else {
340         jTextArea1.append("GRADE \t:"+gr+"\n");
341     }

```

```
342     jTextArea1.append("NUM of Black Copies \t:"+numBlack+"\n");
343     jTextArea1.append("NUM of Colour Copies \t:"+numCol+"\n");
344     jTextArea1.append("PRICE \t:R"+d.format(price)+"\n");
345 }
346
347 /**
348 * @param args the command line arguments
349 */
350 public static void main(String args[]) {
351     /* Set the Nimbus look and feel */
352     //<editor-fold defaultstate="collapsed" desc=" Look and feel setting code (optional) ">
353     /* If Nimbus (introduced in Java SE 6) is not available, stay with the default look and feel.
354      * For details see http://download.oracle.com/javase/tutorial/uiswing/lookandfeel/plaf.html
355     */
356     try {
357         for (javax.swing.UIManager.LookAndFeelInfo info : javax.swing.UIManager.getInstalledLookAndFeels()) {
358             if ("Nimbus".equals(info.getName())) {
359                 javax.swing.UIManager.setLookAndFeel(info.getClassName());
360                 break;
361             }
362         }
363     } catch (ClassNotFoundException ex) {
364         java.util.logging.Logger.getLogger(Q1Frame.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
365     } catch (InstantiationException ex) {
366         java.util.logging.Logger.getLogger(Q1Frame.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
367     } catch (IllegalAccessException ex) {
368         java.util.logging.Logger.getLogger(Q1Frame.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
369     } catch (javax.swing.UnsupportedLookAndFeelException ex) {
370         java.util.logging.Logger.getLogger(Q1Frame.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
371     }
372     //</editor-fold>
373
374     /* Create and display the form */
375     java.awt.EventQueue.invokeLater(new Runnable() {
376         public void run() {
377             new Q1Frame().setVisible(true);
378         }
379     });
380 }
381 // Variables declaration - do not modify
382 private javax.swing.ButtonGroup buttonGroup1;
383 private javax.swing.JButton jButton1;
384 private javax.swing.JButton jButton2;
385 private javax.swing.JButton jButton3;
386 private javax.swing.JComboBox jComboBox1;
387 private javax.swing.JLabel jLabel1;
388 private javax.swing.JLabel jLabel2;
389 private javax.swing.JLabel jLabel3;
390 private javax.swing.JLabel jLabel4;
391 private javax.swing.JLabel jLabel5;
392 private javax.swing.JPanel jPanel1;
393 private javax.swing.JPanel jPanel2;
394 private javax.swing.JPanel jPanel3;
395 private javax.swing.JPanel jPanel4;
396 private javax.swing.JRadioButton jRadioButton1;
397 private javax.swing.JRadioButton jRadioButton2;
398 private javax.swing.JScrollPane jScrollPane1;
399 private javax.swing.JSpinner jSpinner1;
400 private javax.swing.JTextArea jTextArea1;
401 private javax.swing.JTextField jTextField1;
402 // End of variables declaration
```

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403 }

MEMO

QQuest1