ADPROC Coursework

# Introduction

Our program accepts the width, length, height and amount from the user, as well as lets the user select the grade of card, the colour print, whether the box will have reinforced bottom or corners and whether the box will have a sealable top. The program will the check if the details input match with a certain box type. If it does not, then an error is displayed and if it does then it shows the cost of the order. It also allows the user to make more than one order and will show him the total cost of all orders.

Assumptions that we made include;

* That the user will always input the sizes (Width, Height, Length) in meters.

Limitations in our application include;

* The order and total cost only goes up to around 2 billion and then sets itself as a negative number.
* The order and total cost does not show value(Pound/Pence) and therefore the user must guess.
* The number is always rounded to the nearest whole number.

# UML Screenshots

# Source code

## FlexBoxUI

package flexbox;

/\*\*

\* @author danni

\* @author tom\_m

\*/

public class FlexBoxUI extends javax.swing.JFrame {

int total;

int result;

/\*\*

\* Creates new form FlexBoxUI

\*/

public FlexBoxUI() {

initComponents();

}

/\*\*

\* This method is called from within the constructor to initialise the form.

\* WARNING: Do NOT modify this code. The content of this method is always

\* regenerated by the Form Editor.

\*/

@SuppressWarnings("unchecked")

// <editor-fold defaultstate="collapsed" desc="Generated Code">

private void initComponents() {

jPanel1 = new javax.swing.JPanel();

FlexboxTitle = new javax.swing.JLabel();

FlexboxComboBoxCardGrades = new javax.swing.JComboBox<>();

Title2 = new javax.swing.JLabel();

GradeOfCard = new javax.swing.JLabel();

WidthTextbox = new javax.swing.JTextField();

Width = new javax.swing.JLabel();

Length = new javax.swing.JLabel();

LengthTextbox = new javax.swing.JTextField();

Height = new javax.swing.JLabel();

HeightTextbox = new javax.swing.JTextField();

FindCost = new javax.swing.JButton();

ColourPrint = new javax.swing.JLabel();

ColourBox = new javax.swing.JComboBox<>();

ReinforcedBottom = new javax.swing.JLabel();

ReinforcedB = new javax.swing.JComboBox<>();

ReinforcedCorner = new javax.swing.JLabel();

ReinforcedC = new javax.swing.JComboBox<>();

SealableTops = new javax.swing.JLabel();

SealableTopsBox = new javax.swing.JComboBox<>();

Amount = new javax.swing.JLabel();

AmountTextbox = new javax.swing.JTextField();

TotalCost = new javax.swing.JLabel();

jButton1 = new javax.swing.JButton();

jLabel1 = new javax.swing.JLabel();

jScrollPane2 = new javax.swing.JScrollPane();

Result1 = new javax.swing.JTextArea();

jScrollPane3 = new javax.swing.JScrollPane();

Result2 = new javax.swing.JTextArea();

jLabel2 = new javax.swing.JLabel();

setDefaultCloseOperation(javax.swing.WindowConstants.EXIT\_ON\_CLOSE);

jPanel1.setBackground(new java.awt.Color(170, 185, 237));

jPanel1.setCursor(new java.awt.Cursor(java.awt.Cursor.DEFAULT\_CURSOR));

FlexboxTitle.setFont(new java.awt.Font("Times New Roman", 0, 24)); // NOI18N

FlexboxTitle.setText("Flexbox");

FlexboxComboBoxCardGrades.setFont(new java.awt.Font("Times New Roman", 0, 11)); // NOI18N

FlexboxComboBoxCardGrades.setModel(new javax.swing.DefaultComboBoxModel<>(new String[] { "1", "2", "3", "4", "5" }));

Title2.setFont(new java.awt.Font("Times New Roman", 0, 18)); // NOI18N

Title2.setText("Please specify the following details for your order:");

GradeOfCard.setFont(new java.awt.Font("Times New Roman", 0, 14)); // NOI18N

GradeOfCard.setText("Grade of card:");

WidthTextbox.setFont(new java.awt.Font("Times New Roman", 0, 11)); // NOI18N

WidthTextbox.addActionListener(new java.awt.event.ActionListener() {

public void actionPerformed(java.awt.event.ActionEvent evt) {

WidthTextboxActionPerformed(evt);

}

});

Width.setFont(new java.awt.Font("Times New Roman", 0, 14)); // NOI18N

Width.setText("Width:");

Length.setFont(new java.awt.Font("Times New Roman", 0, 14)); // NOI18N

Length.setText("Length:");

LengthTextbox.setFont(new java.awt.Font("Times New Roman", 0, 11)); // NOI18N

Height.setFont(new java.awt.Font("Times New Roman", 0, 14)); // NOI18N

Height.setText("Height:");

HeightTextbox.setFont(new java.awt.Font("Times New Roman", 0, 11)); // NOI18N

FindCost.setText("Find Cost");

FindCost.addActionListener(new java.awt.event.ActionListener() {

public void actionPerformed(java.awt.event.ActionEvent evt) {

FindCostActionPerformed(evt);

}

});

ColourPrint.setFont(new java.awt.Font("Times New Roman", 0, 14)); // NOI18N

ColourPrint.setText("Colour Print:");

ColourBox.setFont(new java.awt.Font("Times New Roman", 0, 13)); // NOI18N

ColourBox.setModel(new javax.swing.DefaultComboBoxModel<>(new String[] { "0", "1", "2" }));

ColourBox.addActionListener(new java.awt.event.ActionListener() {

public void actionPerformed(java.awt.event.ActionEvent evt) {

ColourBoxActionPerformed(evt);

}

});

ReinforcedBottom.setFont(new java.awt.Font("Times New Roman", 0, 14)); // NOI18N

ReinforcedBottom.setText("Reinforced Bottom");

ReinforcedB.setFont(new java.awt.Font("Times New Roman", 0, 14)); // NOI18N

ReinforcedB.setModel(new javax.swing.DefaultComboBoxModel<>(new String[] { "No", "Yes" }));

ReinforcedB.addActionListener(new java.awt.event.ActionListener() {

public void actionPerformed(java.awt.event.ActionEvent evt) {

ReinforcedBActionPerformed(evt);

}

});

ReinforcedCorner.setFont(new java.awt.Font("Times New Roman", 0, 14)); // NOI18N

ReinforcedCorner.setText("Reinforced Corner");

ReinforcedC.setFont(new java.awt.Font("Times New Roman", 0, 14)); // NOI18N

ReinforcedC.setModel(new javax.swing.DefaultComboBoxModel<>(new String[] { "No", "Yes" }));

ReinforcedC.addActionListener(new java.awt.event.ActionListener() {

public void actionPerformed(java.awt.event.ActionEvent evt) {

ReinforcedCActionPerformed(evt);

}

});

SealableTops.setFont(new java.awt.Font("Times New Roman", 0, 14)); // NOI18N

SealableTops.setText("Sealable tops");

SealableTopsBox.setFont(new java.awt.Font("Times New Roman", 0, 14)); // NOI18N

SealableTopsBox.setModel(new javax.swing.DefaultComboBoxModel<>(new String[] { "No", "Yes" }));

SealableTopsBox.addActionListener(new java.awt.event.ActionListener() {

public void actionPerformed(java.awt.event.ActionEvent evt) {

SealableTopsBoxActionPerformed(evt);

}

});

Amount.setFont(new java.awt.Font("Times New Roman", 0, 14)); // NOI18N

Amount.setText("Amount ");

AmountTextbox.setFont(new java.awt.Font("Times New Roman", 0, 11)); // NOI18N

TotalCost.setFont(new java.awt.Font("Times New Roman", 0, 24)); // NOI18N

TotalCost.setText("Total Cost:");

jButton1.setText("Add another order");

jButton1.addActionListener(new java.awt.event.ActionListener() {

public void actionPerformed(java.awt.event.ActionEvent evt) {

jButton1ActionPerformed(evt);

}

});

jLabel1.setFont(new java.awt.Font("Times New Roman", 0, 24)); // NOI18N

jLabel1.setText("Cost of order:");

Result1.setEditable(false);

Result1.setBackground(new java.awt.Color(170, 185, 237));

Result1.setColumns(20);

Result1.setFont(new java.awt.Font("Times New Roman", 0, 14)); // NOI18N

Result1.setLineWrap(true);

Result1.setRows(5);

jScrollPane2.setViewportView(Result1);

Result2.setEditable(false);

Result2.setBackground(new java.awt.Color(170, 185, 237));

Result2.setColumns(20);

Result2.setFont(new java.awt.Font("Times New Roman", 0, 14)); // NOI18N

Result2.setLineWrap(true);

Result2.setRows(5);

jScrollPane3.setViewportView(Result2);

jLabel2.setFont(new java.awt.Font("Times New Roman", 0, 14)); // NOI18N

jLabel2.setText("Automatically adds to ->");

javax.swing.GroupLayout jPanel1Layout = new javax.swing.GroupLayout(jPanel1);

jPanel1.setLayout(jPanel1Layout);

jPanel1Layout.setHorizontalGroup(

jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addGroup(jPanel1Layout.createSequentialGroup()

.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addGroup(jPanel1Layout.createSequentialGroup()

.addContainerGap()

.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addGroup(jPanel1Layout.createSequentialGroup()

.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addComponent(jScrollPane2, javax.swing.GroupLayout.PREFERRED\_SIZE, javax.swing.GroupLayout.DEFAULT\_SIZE, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addGroup(jPanel1Layout.createSequentialGroup()

.addGap(99, 99, 99)

.addComponent(FindCost)))

.addGap(84, 84, 84)

.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addComponent(jScrollPane3, javax.swing.GroupLayout.PREFERRED\_SIZE, javax.swing.GroupLayout.DEFAULT\_SIZE, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addGroup(javax.swing.GroupLayout.Alignment.TRAILING, jPanel1Layout.createSequentialGroup()

.addComponent(Height)

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)

.addComponent(HeightTextbox, javax.swing.GroupLayout.PREFERRED\_SIZE, 72, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addGap(33, 33, 33))))

.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING, false)

.addGroup(jPanel1Layout.createSequentialGroup()

.addGap(37, 37, 37)

.addComponent(jLabel1)

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED, javax.swing.GroupLayout.DEFAULT\_SIZE, Short.MAX\_VALUE)

.addComponent(TotalCost))

.addGroup(javax.swing.GroupLayout.Alignment.LEADING, jPanel1Layout.createSequentialGroup()

.addGap(334, 334, 334)

.addComponent(jButton1)))

.addGroup(jPanel1Layout.createSequentialGroup()

.addGap(14, 14, 14)

.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addGroup(jPanel1Layout.createSequentialGroup()

.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addGroup(jPanel1Layout.createSequentialGroup()

.addGap(28, 28, 28)

.addComponent(Width)

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)

.addComponent(WidthTextbox, javax.swing.GroupLayout.PREFERRED\_SIZE, 72, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addGap(39, 39, 39)

.addComponent(Length)

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)

.addComponent(LengthTextbox, javax.swing.GroupLayout.PREFERRED\_SIZE, 72, javax.swing.GroupLayout.PREFERRED\_SIZE))

.addGroup(jPanel1Layout.createSequentialGroup()

.addComponent(SealableTops)

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)

.addComponent(SealableTopsBox, javax.swing.GroupLayout.PREFERRED\_SIZE, javax.swing.GroupLayout.DEFAULT\_SIZE, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)

.addComponent(ReinforcedCorner)

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)

.addComponent(ReinforcedC, javax.swing.GroupLayout.PREFERRED\_SIZE, javax.swing.GroupLayout.DEFAULT\_SIZE, javax.swing.GroupLayout.PREFERRED\_SIZE)))

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)

.addComponent(Amount)

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)

.addComponent(AmountTextbox, javax.swing.GroupLayout.PREFERRED\_SIZE, 49, javax.swing.GroupLayout.PREFERRED\_SIZE))

.addGroup(jPanel1Layout.createSequentialGroup()

.addComponent(GradeOfCard)

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)

.addComponent(FlexboxComboBoxCardGrades, javax.swing.GroupLayout.PREFERRED\_SIZE, 43, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)

.addComponent(ColourPrint)

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)

.addComponent(ColourBox, javax.swing.GroupLayout.PREFERRED\_SIZE, javax.swing.GroupLayout.DEFAULT\_SIZE, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)

.addComponent(ReinforcedBottom)

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)

.addComponent(ReinforcedB, javax.swing.GroupLayout.PREFERRED\_SIZE, javax.swing.GroupLayout.DEFAULT\_SIZE, javax.swing.GroupLayout.PREFERRED\_SIZE))

.addGroup(jPanel1Layout.createSequentialGroup()

.addGap(182, 182, 182)

.addComponent(jLabel2))))))

.addGroup(jPanel1Layout.createSequentialGroup()

.addGap(221, 221, 221)

.addComponent(FlexboxTitle))

.addGroup(jPanel1Layout.createSequentialGroup()

.addGap(90, 90, 90)

.addComponent(Title2)))

.addContainerGap(javax.swing.GroupLayout.DEFAULT\_SIZE, Short.MAX\_VALUE))

);

jPanel1Layout.setVerticalGroup(

jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addGroup(jPanel1Layout.createSequentialGroup()

.addContainerGap()

.addComponent(FlexboxTitle)

.addGap(18, 18, 18)

.addComponent(Title2)

.addGap(33, 33, 33)

.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)

.addComponent(GradeOfCard)

.addComponent(ColourPrint)

.addComponent(FlexboxComboBoxCardGrades, javax.swing.GroupLayout.PREFERRED\_SIZE, javax.swing.GroupLayout.DEFAULT\_SIZE, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addComponent(ColourBox, javax.swing.GroupLayout.PREFERRED\_SIZE, 19, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addComponent(ReinforcedBottom)

.addComponent(ReinforcedB, javax.swing.GroupLayout.PREFERRED\_SIZE, javax.swing.GroupLayout.DEFAULT\_SIZE, javax.swing.GroupLayout.PREFERRED\_SIZE))

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)

.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)

.addComponent(ReinforcedCorner)

.addComponent(ReinforcedC, javax.swing.GroupLayout.PREFERRED\_SIZE, javax.swing.GroupLayout.DEFAULT\_SIZE, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addComponent(SealableTops)

.addComponent(SealableTopsBox, javax.swing.GroupLayout.PREFERRED\_SIZE, javax.swing.GroupLayout.DEFAULT\_SIZE, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addComponent(Amount)

.addComponent(AmountTextbox, javax.swing.GroupLayout.PREFERRED\_SIZE, javax.swing.GroupLayout.DEFAULT\_SIZE, javax.swing.GroupLayout.PREFERRED\_SIZE))

.addGap(51, 51, 51)

.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)

.addComponent(Width)

.addComponent(WidthTextbox, javax.swing.GroupLayout.PREFERRED\_SIZE, javax.swing.GroupLayout.DEFAULT\_SIZE, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addComponent(Length)

.addComponent(LengthTextbox, javax.swing.GroupLayout.PREFERRED\_SIZE, javax.swing.GroupLayout.DEFAULT\_SIZE, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addComponent(Height)

.addComponent(HeightTextbox, javax.swing.GroupLayout.PREFERRED\_SIZE, javax.swing.GroupLayout.DEFAULT\_SIZE, javax.swing.GroupLayout.PREFERRED\_SIZE))

.addGap(35, 35, 35)

.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)

.addComponent(FindCost)

.addComponent(jButton1))

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)

.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)

.addComponent(jLabel1)

.addComponent(TotalCost)

.addComponent(jLabel2))

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED, 26, Short.MAX\_VALUE)

.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addComponent(jScrollPane2, javax.swing.GroupLayout.PREFERRED\_SIZE, javax.swing.GroupLayout.DEFAULT\_SIZE, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addComponent(jScrollPane3, javax.swing.GroupLayout.PREFERRED\_SIZE, javax.swing.GroupLayout.DEFAULT\_SIZE, javax.swing.GroupLayout.PREFERRED\_SIZE))

.addContainerGap())

);

Title2.getAccessibleContext().setAccessibleName("");

javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());

getContentPane().setLayout(layout);

layout.setHorizontalGroup(

layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addComponent(jPanel1, javax.swing.GroupLayout.Alignment.TRAILING, javax.swing.GroupLayout.DEFAULT\_SIZE, javax.swing.GroupLayout.DEFAULT\_SIZE, Short.MAX\_VALUE)

);

layout.setVerticalGroup(

layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addComponent(jPanel1, javax.swing.GroupLayout.DEFAULT\_SIZE, javax.swing.GroupLayout.DEFAULT\_SIZE, Short.MAX\_VALUE)

);

pack();

}// </editor-fold>

private void WidthTextboxActionPerformed(java.awt.event.ActionEvent evt) {

// TODO add your handling code here:

}

private void FindCostActionPerformed(java.awt.event.ActionEvent evt) {

String ComboBoxGrade = (String) FlexboxComboBoxCardGrades.getSelectedItem();

String ColourPicker = (String) ColourBox.getSelectedItem();

String ReinforcedBoxBottom = (String) ReinforcedB.getSelectedItem();

String ReinforcedBoxCorner = (String) ReinforcedC.getSelectedItem();

String SealableBox = (String) SealableTopsBox.getSelectedItem();

try {

float height, length, width, Area;

height = Float.parseFloat(HeightTextbox.getText());

length = Float.parseFloat(LengthTextbox.getText());

width = Float.parseFloat(WidthTextbox.getText());

Area = ((2 \* (height \* length)) + (2 \* (length \* width)) + (2 \* (height \* width)));

Result1.setText(String.valueOf(Area));

BoxType box = new BoxType(Area, ComboBoxGrade, ColourPicker, ReinforcedBoxBottom, ReinforcedBoxCorner, SealableBox);

box.createBox();

result = (int) box.getCost();

int boxType = box.getType();

float amount;

amount = Float.parseFloat(AmountTextbox.getText());

result = (int) (result \* amount);

if (boxType == 1 || boxType == 2 || boxType == 3 || boxType == 4 || boxType == 5) {

total = total + result;

Result1.setText(String.valueOf((result)));

Result2.setText(String.valueOf(total));

} else {

Result1.setText(String.valueOf("Invalid Box Type, Please change order"));

}

} catch (NumberFormatException e) {

Result1.setText(String.valueOf("Please insert a number and don't keep the textbox empty."));

}

}

private void ReinforcedBActionPerformed(java.awt.event.ActionEvent evt) {

// TODO add your handling code here:

}

private void ReinforcedCActionPerformed(java.awt.event.ActionEvent evt) {

// TODO add your handling code here:

}

private void SealableTopsBoxActionPerformed(java.awt.event.ActionEvent evt) {

// TODO add your handling code here:

}

private void ColourBoxActionPerformed(java.awt.event.ActionEvent evt) {

// TODO add your handling code here:

}

/\*\*

\* @param args

\* Runs the program. Initialises the gui.

\*/

public static void main(String[] args) {

FlexBoxUI gui = new FlexBoxUI();

new FlexBoxUI().setVisible(true);

}

private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {

result = (int) Float.parseFloat(Result1.getText());

Result2.setText(String.valueOf((total)));

WidthTextbox.setText("");

LengthTextbox.setText("");

HeightTextbox.setText("");

AmountTextbox.setText("");

FlexboxComboBoxCardGrades.setSelectedIndex(0);

ColourBox.setSelectedIndex(0);

ReinforcedB.setSelectedIndex(0);

ReinforcedC.setSelectedIndex(0);

SealableTopsBox.setSelectedIndex(0);

Result1.setText("");

}

// Variables declaration - do not modify

private javax.swing.JLabel Amount;

private javax.swing.JTextField AmountTextbox;

private javax.swing.JComboBox<String> ColourBox;

private javax.swing.JLabel ColourPrint;

private javax.swing.JButton FindCost;

private javax.swing.JComboBox<String> FlexboxComboBoxCardGrades;

private javax.swing.JLabel FlexboxTitle;

private javax.swing.JLabel GradeOfCard;

private javax.swing.JLabel Height;

private javax.swing.JTextField HeightTextbox;

private javax.swing.JLabel Length;

private javax.swing.JTextField LengthTextbox;

private javax.swing.JComboBox<String> ReinforcedB;

private javax.swing.JLabel ReinforcedBottom;

private javax.swing.JComboBox<String> ReinforcedC;

private javax.swing.JLabel ReinforcedCorner;

private javax.swing.JTextArea Result1;

private javax.swing.JTextArea Result2;

private javax.swing.JLabel SealableTops;

private javax.swing.JComboBox<String> SealableTopsBox;

private javax.swing.JLabel Title2;

private javax.swing.JLabel TotalCost;

private javax.swing.JLabel Width;

private javax.swing.JTextField WidthTextbox;

private javax.swing.JButton jButton1;

private javax.swing.JLabel jLabel1;

private javax.swing.JLabel jLabel2;

private javax.swing.JPanel jPanel1;

private javax.swing.JScrollPane jScrollPane2;

private javax.swing.JScrollPane jScrollPane3;

// End of variables declaration

}

## BoxType

package flexbox;

/\*\*

\* @author tom\_m

\* @author danni

\*/

public class BoxType {

private double cost = 0.0;

private String ComboBoxGrade = "0";

private float area = (float) 0.0;

private String ColourPicker = "0";

private int boxType = 0;

private String ReinforcedBoxBottom = "No";

private String ReinforcedBoxCorner = "No";

private String SealableBox = "No";

/\*\*

\* Constructor.

\*/

public BoxType() {

area = (float) 10.0;

ComboBoxGrade = "1";

}

/\*\*

\* Initialises the parameters

\*

\* @param area

\* @param cmg

\* @param cp

\* @param rbb

\* @param rbc

\* @param sb

\*/

public BoxType(float area, String cmg, String cp, String rbb, String rbc, String sb) {

this.area = area;

this.ComboBoxGrade = cmg;

this.ColourPicker = cp;

this.ReinforcedBoxBottom = rbb;

this.ReinforcedBoxCorner = rbc;

this.SealableBox = sb;

}

/\*\*

\* Method to calculate the boxType

\*/

public void createBox() {

switch (ComboBoxGrade) {

case "1":

cost = (area \* 0.5);

break;

case "2":

cost = (area \* 0.6);

break;

case "3":

cost = (area \* 0.72);

break;

case "4":

cost = (area \* 0.9);

break;

case "5":

cost = (area \* 1.4);

break;

}

switch (ColourPicker) {

case "0":

if ("1".equals(ComboBoxGrade) || "2".equals(ComboBoxGrade) || "3".equals(ComboBoxGrade)) {

boxType = 1;

} else {

boxType = 6; //Setting it to 6 returns an error.

}

break;

case "1":

if ("2".equals(ComboBoxGrade) || "3".equals(ComboBoxGrade) || "4".equals(ComboBoxGrade)) {

boxType = 2;

} else {

boxType = 6;

}

cost = (cost \* 1.13);

break;

case "2":

if ("2".equals(ComboBoxGrade)) {

boxType = 3;

}

if ("3".equals(ComboBoxGrade) || "4".equals(ComboBoxGrade) || "5".equals(ComboBoxGrade)) {

boxType = 5;

}

cost = (cost \* 1.16);

break;

}

switch (ReinforcedBoxBottom) {

case "Yes":

if (boxType == 1) {

boxType = 6;

}

if (boxType == 2) {

boxType = 6;

}

if (boxType == 3) {

boxType = 4;

}

cost = (cost \* 1.14);

break;

case "No":

if (boxType == 3) {

boxType = 3;

}

if (boxType == 4 || boxType == 5) {

boxType = 6;

}

break;

}

switch (ReinforcedBoxCorner) {

case "Yes":

if (boxType != 5) {

boxType = 6;

}

cost = (cost \* 1.10);

break;

case "No":

if (boxType == 5) {

boxType = 6;

}

break;

}

switch (SealableBox) {

case "Yes":

cost = (cost \* 1.08);

break;

case "No":

break;

}

}

/\*\*

\* @return cost

\*/

public double getCost() {

return this.cost;

}

/\*\*

\* @return boxType

\*/

public int getType() {

return this.boxType;

}

}