///Mario Palacios CSC 20 - 01, Final Project

import javax.swing.\*;

import java.awt.\*;

import java.awt.event.\*;

import java.io.\*;

class Course implements Serializable { int SSN; String Name; char Gender; int Age; int AcademicLvl; int Scores;} //double Students; }

public class GradeBook implements ActionListener {

static String[] buttonM ={"Create a New Class", "Load Students From a File", "Add New Students", "Enter Lab Scores", "Sort Students", "View/Delete Students", "Backup Students to File", "Exit"};

////////////////////////////////////////////////////////////////Box1

static JButton topButtons[] = new JButton[buttonM.length];

static JScrollPane scrollPane;

static JScrollPane scrollPane2;

static JTextField tf = new JTextField(" ", 10);

static JTextField tf2 = new JTextField(" ", 10);

////////////////////////////////////////////////////////////////Box2

static JTextField tf3 = new JTextField(" ", 10);

//static JTextField tf4 = new JTextField(" ",10);

static JButton box2A = new JButton();

static JButton box2B = new JButton();

////////////////////////////////////////////////////////////////Box3

static JTextField tf5 = new JTextField(" ", 10);

static JButton box3A = new JButton();

static JButton box3B = new JButton();

////////////////////////////////////////////////////////////////Box4

static String[] info = {"ID", "Name", "Gender", "Age", "Academic Level", "Lab 1", "Lab 2", "Lab 3", "Lab 4", "Lab 5", "Lab 6", "Lab 7", "Lab 8", "Lab 9", "Lab 10"};

static String[] sex = {"Male", "Female"};

static String[] level = {"Fresh Ham", "Soft Porn", "JEWnoir", "Si NEER"};

static JComboBox <String> academic = new JComboBox <String>(level);

static JComboBox <String> gender = new JComboBox <String>(sex);

static JTextField tf6 = new JTextField(" ", 20);

static JTextField tf7 = new JTextField(" ", 20);

static JTextField tf8 = new JTextField(" ", 20);

static JTextField tfA = new JTextField(" ", 20);

static JTextField tfB = new JTextField(" ", 20);

static JButton box4A = new JButton();

static JButton box4B = new JButton();

////////////////////////////////////////////////////////////////Box5

static JTextField tf9 = new JTextField(" ", 20);

static JTextField tf10 = new JTextField(" ", 20);

static JButton box5A = new JButton();

//static JButton box5B = new JButton();

////////////////////////////////////////////////////////////////Box6

static JButton box6A = new JButton();

static JButton box6B = new JButton();

////////////////////////////////////////////////////////////////Box7

static JButton box7A = new JButton();

static JButton box7B = new JButton();

/////////////////////////////////////////////////////////////////

static Course[] CS = new Course[100];

static int cNum = 0;

static double labs = 0;

static JTable abtable;

/////////////////////////////////////////////////////////////////

static CardLayout contentPaneLayout;

static Container contentPane;

////////////////////////////////////////////////////////////////

public void actionPerformed (ActionEvent e) {

Object source = e.getSource();

for (int i = 0; i < 8; i++) {

if (source == topButtons[i]) {

switch(i) {

case 0: contentPaneLayout.show(contentPane, "Card 2");

return;

case 1: contentPaneLayout.show(contentPane, "Card 3");

return;

case 2: contentPaneLayout.show(contentPane, "Card 4");

return;

case 3: contentPaneLayout.show(contentPane, "Card 5");

return;

case 4: contentPaneLayout.show(contentPane, "Card 6");

return;

case 5:

//students = 0;

String data[][] = new String[cNum][5];

for (int j = 0; j < cNum; ++j) {

data[j][0] = " " + CS[j].SSN;

data[j][1] = CS[j].Name;

data[j][2] = sex[CS[j].Gender];

data[j][3] = " " + CS[j].Age;

data[j][4] = level[CS[j].AcademicLvl];

}

abtable = new JTable (data, info);

JScrollPane tmp = new JScrollPane(abtable);

scrollPane2.setViewport(tmp.getViewport());

contentPaneLayout.show(contentPane, "Card 7");

return;

case 6:

try {

FileOutputStream fos = new FileOutputStream (tf.getText(), false);

ObjectOutputStream oos = new ObjectOutputStream (fos);

for (int k = 0; k < cNum; ++k) {

oos.writeObject(CS[k]);

}

oos.close();

}

catch (FileNotFoundException ee){

System.out.println(ee.toString());

}

catch (IOException ee) {

ee.printStackTrace();

}

return;

case 7:

System.exit(0);

}

}

}

if (source == box3A) {

try {

FileInputStream fis = new FileInputStream (tf5.getText());

ObjectInputStream ois = new ObjectInputStream(fis);

cNum = 0;

while (true) {

Course c = (Course) ois.readObject();

CS[cNum++] = c;

}

} catch (EOFException ee) {

} catch (Exception ee) {

ee.printStackTrace();

}

}

if (source == box2B || source == box3B || source == box4B || source == box5A || source == box6B || source == box7B) {

contentPaneLayout.show(contentPane, "Card 1");

return;

}

if (source == box2A) {

tf.setText(tf3.getText());

//tf2.setText(tf4.getText());

Course c = new Course();

CS[0] = c;

cNum = 1;

contentPaneLayout.show(contentPane, "Card 1");

}

/\*if (source == box4A) {

Course c = new Course();

c.SSN = tf6.getText();

c.Name = tf7.getText();

c.Gender = gender.getSelectedIndex();

c.Age = tf8.getText();

c.AcademicLvl = academic.getSelectedIndex();

CS[cNum++] = c;

tf6.setText(" ");

tf7.setText(" ");

tf8.setText(" ");

return;

}\*/

// if (source == box5A) FOR ENTERING LAB SCORES

/\*if (source == box7A) {

int d = abtable.getSelectedRow();

for (int i = d + 1; i < cNum; ++i) {

CS[i - 1] = CS [i];

}

cNum--;

students = 0;

String data[][] = new String data[cNum][7];

////ADD SHIT

abtable = new JTable (data, info);

JScrollPane tmp = new JSCrollPane(abtable);

scrollPane2.setViewport(tmp.getViewport());

return;

}\*/

if (source == box3A) {

try {

FileInputStream fis = new FileInputStream (tf5.getText());

ObjectInputStream ois = new ObjectInputStream(fis);

cNum = 0;

labs = 0;

while (true) {

Course C = (Course) ois.readObject();

CS[cNum++] = C;

}

} catch (EOFException ee) {

} catch (Exception ee) {

ee.printStackTrace();

}

tf.setText(tf5.getText());

//tf2.setText(" " + Scores);

}

}

public static void main (String[] args) {

ActionListener AL = new GradeBook();

JFrame frame = new JFrame ("GradeBook");

//////////////////////////////////////////////////////////////////////////////////////////////Labels

JLabel titleA = new JLabel ("<html><font size = 5><b>Use Buttons Below to Manage Students</b></html>", JLabel.CENTER);

JLabel titleB = new JLabel ("<html><font size = 5><b>Create a New Class</b></html>", JLabel.CENTER);

JLabel titleC = new JLabel ("<html><font size = 5><b>Load Students From a File</b></html>", JLabel.CENTER);

JLabel titleD = new JLabel ("<html><font size = 5><b>Enter Student Information</b></html>", JLabel.CENTER);

JLabel titleE = new JLabel ("<html><font size = 5><b>Enter Lab Scores</b></html>", JLabel.CENTER);

JLabel titleF = new JLabel ("<html><font size = 5><b>Sort Students</b></html>", JLabel.CENTER);

JLabel titleG = new JLabel ("<html><font size = 5><b>Student List</b></html>", JLabel.CENTER);

//////////////////////////////////////////////////////////////////Box1

contentPane = frame.getContentPane();

contentPane.setLayout(contentPaneLayout = new CardLayout());

JPanel box1 = new JPanel (new BorderLayout (0,1));

box1.add(titleA,BorderLayout.NORTH);

JPanel panelB = new JPanel (new GridLayout (2,4));

JPanel panelC = new JPanel (new FlowLayout());

JLabel labelB = new JLabel ("Class Name: ", JLabel.CENTER);

JLabel labelC = new JLabel ("Number of Students: ", JLabel.CENTER);

panelC.add(labelB);

panelC.add(tf);

panelC.add(labelC);

panelC.add(tf2);

/////////////////////////////////////////////////////////////ActionListeners

for (int i = 0; i < buttonM.length; ++i) {

panelB.add(topButtons[i] = new JButton(" " + buttonM[i]));

topButtons[i].addActionListener(AL);

}

box1.add(panelC, BorderLayout.CENTER);

box1.add(panelB, BorderLayout.SOUTH);

contentPane.add("Card 1", box1);

///////////////////////////////////////////////////////////////Box2

JPanel box2 = new JPanel(new GridLayout(0,1));

JLabel labelD = new JLabel ("Class Name: ", JLabel.CENTER);

JPanel panelD = new JPanel (new FlowLayout());

JPanel panelE = new JPanel (new GridLayout(0,2));

JPanel panel1 = new JPanel();

JPanel panel2 = new JPanel(new FlowLayout());

//JPanel panel3 = new JPanel();

box2.add(titleB,panelD);

panelD.add(labelD);

panelD.add(tf3);

//panel2.add(labelE);

//panel2.add(tf4);

box2.add(panelD);

box2.add(panel1);

box2.add(panel2);

//box2.add(panel3);

panelE.add(box2A = new JButton("Create"));

box2A.addActionListener(AL);

panelE.add(box2B = new JButton("Cancel"));

box2B.addActionListener(AL);

box2.add(panelE);

contentPane.add("Card 2", box2);

/////////////////////////////////////////////////////////////Box 3

JPanel box3 = new JPanel(new BorderLayout(0,1));

box3.add(titleC,BorderLayout.NORTH);

JLabel labelF = new JLabel ("Class Name: ", JLabel.CENTER);

JPanel panelF = new JPanel (new FlowLayout());

JPanel panelG = new JPanel (new GridLayout(0,2));

panelF.add(labelF);

panelF.add(tf5);

box3.add(panelF, BorderLayout.CENTER);

panelG.add(box3A = new JButton ("Load"));

box3A.addActionListener(AL);

panelG.add(box3B = new JButton ("Cancel"));

box3B.addActionListener(AL);

box3.add(panelG, BorderLayout.SOUTH);

contentPane.add("Card 3", box3);

/////////////////////////////////////////////////////////////Box4

JPanel box4 = new JPanel (new BorderLayout());

JPanel panelH = new JPanel (new GridLayout (0,2));

JPanel panelI = new JPanel (new GridLayout (0,2));

JLabel labelG = new JLabel ("SSN: ", JLabel.RIGHT);

JLabel labelH = new JLabel ("Name: ", JLabel.RIGHT);

JLabel labelI = new JLabel ("Gender: ", JLabel.RIGHT);

JLabel labelJ = new JLabel ("Age: ", JLabel.RIGHT);

JLabel labelK = new JLabel ("Academic Level: ", JLabel.RIGHT);

JPanel panel4 = new JPanel();

JPanel panel5 = new JPanel();

panelH.add(labelG);

panelH.add(tf6);

panelH.add(labelH);

panelH.add(tf7);

panelH.add(labelI);

panelH.add(gender);

panelH.add(labelJ);

panelH.add(tf8);

panelH.add(labelK);

panelH.add(academic);

panelI.add(box4A = new JButton ("Save & Add Student"));

box4A.addActionListener(AL);

panelI.add(box4B = new JButton ("Back to Top Menu"));

box4B.addActionListener(AL);

box4.add(panelH, BorderLayout.CENTER);

box4.add(panelI, BorderLayout.SOUTH);

contentPane.add("Card 4", box4);

/////////////////////////////////////////////////////////////Box5

JPanel box5 = new JPanel (new BorderLayout(0,1));

JPanel panel20 = new JPanel (new GridLayout (0,1));

JPanel panel21 = new JPanel (new FlowLayout());

JPanel panel22 = new JPanel (new FlowLayout());

JLabel labelL = new JLabel ("Lab Number: ", JLabel.CENTER);

JLabel labelM = new JLabel ("Score for: ", JLabel.CENTER);

panel22.add(labelL);

panel22.add(tf9);

panel22.add(labelM);

panel22.add(tf10);

panel20.add(panel22);

panel21.add(box5A = new JButton ("Back to Top Menu"));

box5A.addActionListener(AL);

panel20.add(panel21);

scrollPane = new JScrollPane();

box5.add(titleE, BorderLayout.NORTH);

box5.add(scrollPane, BorderLayout.CENTER);

box5.add(panel20, BorderLayout.SOUTH);

contentPane.add("Card 5", box5);

/////////////////////////////////////////////////////////////Box6

JPanel box6 = new JPanel (new BorderLayout(0,1));

JPanel panel23 = new JPanel (new FlowLayout());

JPanel panel24 = new JPanel (new GridLayout(0,2));

JRadioButton sort = new JRadioButton ("By ID");

JRadioButton sort2 = new JRadioButton ("By Name");

panel23.add(sort);

panel23.add(sort2);

panel24.add(box6A = new JButton ("Sort"));

box6A.addActionListener(AL);

panel24.add(box6B = new JButton ("Top Menu"));

box6B.addActionListener(AL);

box6.add(titleF, BorderLayout.NORTH);

box6.add(panel23, BorderLayout.CENTER);

box6.add(panel24, BorderLayout.SOUTH);

contentPane.add("Card 6", box6);

/////////////////////////////////////////////////////////////Box7

String[] info2 = {"ID", "Name", "Level", "Gender", "Age", "Lab"};

JPanel box7 = new JPanel (new BorderLayout (0,1));

JPanel panel25 = new JPanel (new GridLayout (0,1));

JPanel panel26 = new JPanel (new FlowLayout());

JPanel panel27 = new JPanel (new FlowLayout());

box7.add(titleG, BorderLayout.NORTH);

scrollPane2 = new JScrollPane();

box7.add(scrollPane2, BorderLayout.CENTER);

panel26.add(box7A = new JButton ("Delete Selected"));

box7A.addActionListener(AL);

panel26.add(box7B = new JButton ("Top Menu"));

box7B.addActionListener(AL);

box7.add(panel26, BorderLayout.SOUTH);

contentPane.add("Card 7", box7);

////////////////////////////////////////////////////////////////EXIT

contentPaneLayout.show(contentPane, "Card 1");

frame.pack();

frame.setSize(718,320);

frame.setDefaultCloseOperation(JFrame.EXIT\_ON\_CLOSE);

frame.setVisible(true);

}

}