import java.awt.\*;

import javax.swing.\*;

import java.awt.event.\*;

/\*\*

\* The GUI For HW4.

\*

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\* @version (01/05/19)

\*/

public class HW4GUI extends JFrame implements ActionListener

{

private JPanel buttonPanel,textPanel;

private JButton jbtAdd,jbtNumber,jbtQuit;

private JLabel jlbCardNumber,jlbFName,jlbLName;

private JTextField jtfCardNumber,jtfFName,jtfLName;

private HW4LoyaltyCardList cards;

private int nextCardNumber;

private static int LoyaltyCardNumber = 0;

/\*\* Constructor for creating the GUI.

\*/

public HW4GUI()

{

super("HW4GUI");

cards=new HW4LoyaltyCardList();

makeFrame();

showFrame();

}

/\*\* Method for making the frame of the GUI.

\*/

private void makeFrame()

{

setLayout(new BorderLayout());

createButtonPanel();

add(buttonPanel,BorderLayout.SOUTH);

createTextPanel();

add(textPanel,BorderLayout.NORTH);

}

/\*\* Method for displaying the frame of the GUI.

\*/

private void showFrame()

{

setDefaultCloseOperation(JFrame.DO\_NOTHING\_ON\_CLOSE);

setSize(500,200);

setLocationRelativeTo(null);

setVisible(true);

}

/\*\* Method that creates the buttons for the GUI.

\*/

private void createButtons()

{

jbtAdd = new JButton("Add Loyalty Card");

jbtNumber = new JButton("Number of Cards");

jbtQuit = new JButton("Quit");

}

/\*\* Method that adds action listeners to the buttons of the GUI.

\*/

private void addActionListeners()

{

jbtAdd.addActionListener(this);

jbtNumber.addActionListener(this);

jbtQuit.addActionListener(this);

}

/\*\* Method that creates the panels for the buttons within the GUI.

\*/

private void createButtonPanel()

{

buttonPanel = new JPanel();

buttonPanel.setLayout(new GridLayout());

buttonPanel.setBorder(BorderFactory.createEtchedBorder());

createButtons();

buttonPanel.add(jbtAdd);

buttonPanel.add(jbtNumber);

buttonPanel.add(jbtQuit);

addActionListeners();

}

/\*\* Method that clears the text fields for the GUI.

\*/

private void clearTextFields()

{

jtfFName.setText("");

jtfLName.setText("");

jtfCardNumber.setText("");

}

/\*\* Method for when an input is performed, such as add loyalty card, confirm, number of loyalty

\* cards and clear number.

\*/

public void actionPerformed(ActionEvent e)

{

String input = e.getActionCommand();

if(input.equals("Add Loyalty Card"))

{

if(jtfFName.getText().equals("") && jtfLName.getText().equals(""))

{

jtfCardNumber.setText("No names");

}

else if(jtfFName.getText().equals("") && !(jtfFName.getText().equals("")))

{

jtfCardNumber.setText("No first name");

}

else if(!(jtfFName.getText().equals("")) && jtfFName.getText().equals(""))

{

jtfCardNumber.setText("No last name");

}

else

{

jlbCardNumber.setVisible(true );

jtfCardNumber.setText(""+ ++LoyaltyCardNumber);

jbtAdd.setText("Confirm");

jbtNumber.setEnabled(false);

}

}

else if(input.equals("Confirm"))

{

cards.addLoyaltyCard(new HW4LoyaltyCard (jtfFName.getText(),jtfLName.getText(),jtfCardNumber.getText()));

clearTextFields();

jbtAdd.setText("Add Loyalty Card");

jlbCardNumber.setVisible(false);

jbtNumber.setEnabled(true);

}

else if(input.equals("Number of Cards"))

{

jbtAdd.setEnabled(false);

jbtNumber.setText("Clear Number");

jlbCardNumber.setVisible(true);

jtfCardNumber.setText(""+ LoyaltyCardNumber);

}

else if(input.equals("Clear Number"))

{

jbtNumber.setText("Number of Cards");

jlbCardNumber.setVisible(false);

clearTextFields();

jbtAdd.setEnabled(true);

}

else

{

System.exit(0);

}

}

/\*\* Method that creates the text panel for the GUI, as well as adjusting the alignments.

\*/

private void createTextPanel()

{

textPanel = new JPanel();

textPanel.setLayout(new GridLayout(3,3,20,20));

jlbCardNumber = new JLabel("Loyalty Card Number:");

jlbCardNumber.setHorizontalAlignment(JLabel.RIGHT);

jlbFName = new JLabel("First Name:");

jlbFName.setHorizontalAlignment(JLabel.RIGHT);

jlbLName = new JLabel("Last Name:");

jlbLName.setHorizontalAlignment(JLabel.RIGHT);

jtfCardNumber = new JTextField();

jtfFName = new JTextField();

jtfLName = new JTextField();

jtfCardNumber.setEditable(false);

jlbCardNumber.setVisible(false);

textPanel.add(jlbFName);

textPanel.add(jtfFName);

textPanel.add(jlbLName);

textPanel.add(jtfLName);

textPanel.add(jlbCardNumber);

textPanel.add(jtfCardNumber);

}

}