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/* Ethan Liao and Lorence Tsai
 * BobGame.java
 */

```

```

import java.awt.Graphics;
import java.awt.Color;
import java.awt.Font;

```

```

import java.awt.CardLayout;
import java.awt.BorderLayout;
import java.awt.FlowLayout;
import java.awt.GridLayout;

```

```

import javax.swing.JFrame;
import javax.swing.JPanel;
import javax.swing.JLabel;
import javax.swing.JButton;

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class BobGame // Written by Torence Lsai

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```

{
    public static void main(String[] bob)
    {
        BobGame bg = new BobGame();
        bg.runGame();
    }

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```

    public void runGame()
    {
        JFrame frame = new JFrame("Bob the Frog Explores the Deep Sea of Chinese Literacy");
        frame.setSize( 1280, 720);
        frame.setDefaultCloseOperation(frame.EXIT_ON_CLOSE);
        frame.setLocation(0,0);
        frame.setResizable(false);
        BobHolder bh = new BobHolder();
        frame.getContentPane().add(bh);
        frame.setVisible(true);
    }

```

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}

```

```

/* Ethan Liao and Lorence Tsai
 * Written mostly by Lorence Tsai
 * BobHolder.java
 */

```

```

import java.awt.Graphics;
import java.awt.Color;
import java.awt.Font;

```

```

import java.awt.CardLayout;
import java.awt.BorderLayout;
import java.awt.FlowLayout;
import java.awt.GridLayout;

```

```

import javax.swing.JFrame;
import javax.swing.JPanel;
import javax.swing.JLabel;
import javax.swing.JButton;

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class BobHolder extends JPanel

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```

{
    CardLayout cards;
    private boolean isStrokes;
    public BobHolder()
    {
        isStrokes = false;
        cards = new CardLayout();
        setLayout(cards);
        Instructions instructions = new Instructions(this);

        Cover cover = new Cover(this);
        Home home = new Home(this);
        GamePanel game = new GamePanel(this);
        Flashcards fcards = new Flashcards(this);
        add(cover, "cover");
        add(home, "home");
    }

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        add(instructions, "instructions");
        add(game, "game");
        add(fcards, "cards");
    }

    public CardLayout getCards()
    {
        return cards;
    }

    public void setStroke(boolean isStrokeIn)
    {
        isStrokes = isStrokeIn;
    }
}

/* Ethan Liao and Lorence Tsai
 * BasePanel.java
 */

import java.awt.Graphics;
import java.awt.Color;
import java.awt.Font;
import java.awt.Dimension;

import java.awt.CardLayout;
import java.awt.BorderLayout;
import java.awt.FlowLayout;
import java.awt.GridLayout;

import javax.swing.JFrame;
import javax.swing.JPanel;
import javax.swing.JLabel;
import javax.swing.JButton;

class BasePanel extends JPanel
{
    BobHolder bh3;

```

```

private JPanel empty1 = new JPanel();
private JPanel empty2 = new JPanel();
private JPanel centerPanel = new JPanel();
public BasePanel(BobHolder bhIn2, String titleIn)
{
    bh3 = bhIn2;

    setLayout(new BorderLayout(10, 10));

    JLabel title = new JLabel(titleIn, JLabel.CENTER);
    title.setFont(new Font("serif", Font.BOLD, 36));
    add(title, BorderLayout.NORTH);

    empty1.setPreferredSize(new Dimension(250, 100));
    empty1.setBackground(Color.BLUE);
    empty1.setLayout(new FlowLayout(FlowLayout.CENTER, 10, 10));
    add(empty1, BorderLayout.WEST);

    empty2.setPreferredSize(new Dimension(250, 100));
    empty2.setBackground(Color.BLUE);
    empty2.setLayout(new FlowLayout(FlowLayout.CENTER, 10, 10));
    add(empty2, BorderLayout.EAST);

    add(centerPanel, BorderLayout.CENTER);
}

public JPanel getPanel(String panelName)
{
    if (panelName.equals("left"))
    {
        return empty1;
    }
    else if (panelName.equals("right"))
    {
        return empty2;
    }

    return centerPanel;
}

```

```

    }
}

/* Ethan Liao and Lorence Tsai
 * Cover.java
 * Done by Ethan Liao
 */
import java.awt.Graphics;
import java.awt.Color;
import java.awt.Font;

import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;

import java.awt.CardLayout;
import java.awt.BorderLayout;
import java.awt.FlowLayout;
import java.awt.GridLayout;

import javax.swing.JFrame;
import javax.swing.JPanel;
import javax.swing.JLabel;
import javax.swing.JButton;

class Cover extends JPanel
{
    BobHolder bh2;
    public Cover(BobHolder bhIn)
    {
        bh2 = bhIn;
        setBackground(Color.BLUE);
        setLayout(null);

        JLabel titleLabel = new JLabel("<html><center>Bob the Frog Explores the Deep Sea of Chinese
Literacy</center></html>");
        titleLabel.setFont(new Font("serif", Font.BOLD, 36));
        add(titleLabel);
        titleLabel.setBounds(350, 0, 580, 150);
    }
}

```

```

CoverButtonHandler cbh = new CoverButtonHandler();

JButton next = new JButton("Play");
next.setFont(new Font("serif", Font.BOLD, 24));
next.setBounds(568, 200, 144, 40);
next.addActionListener(cbh);
add(next);

JButton quit = new JButton("Quit");
quit.setFont(new Font("serif", Font.BOLD, 24));
quit.setBounds(568, 275, 144, 40);
quit.addActionListener(cbh);
add(quit);
}

class CoverButtonHandler implements ActionListener
{
    public void actionPerformed(ActionEvent evt)
    {
        String command = evt.getActionCommand();
        if (command.equals("Play"))
        {
            bh2.getCards().show(bh2, "home");
        }
        else if (command.equals("Quit"))
        {
            System.exit(0);
        }
    }
}

/* Ethan Liao and Lorence Tsai
 * Home.java
 * Done by Ethan Liao
 */
import java.awt.event.ActionEvent;

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import java.awt.event.ActionListener;

import java.awt.GridLayout;

import javax.swing.JButton;

class Home extends BasePanel
{
    public Home(BobHolder bhIn3)
    {
        super(bhIn3, "Select Game Mode");

        JButton instructButton = new JButton("How to Play");
        add(instructButton);
        ButtonHandler bHandler = new ButtonHandler();
        instructButton.addActionListener(bHandler);
        getPanel("right").add(instructButton);

        getPanel("center").setLayout(new GridLayout(1, 3));

        JButton[] menuButtons = new JButton[3];
        String[] buttonNames = {"Flashcards", "Word Identification", "Stroke Order"};
        for (int i=0; i<3; i++) {
            menuButtons[i] = new JButton(buttonNames[i]);
            menuButtons[i].addActionListener(bHandler);
            getPanel("center").add(menuButtons[i]);
        }
        add(getPanel("center"));
    }

    class ButtonHandler implements ActionListener
    {
        public void actionPerformed(ActionEvent evt)
        {
            String command = evt.getActionCommand();
            if (command.equals("How to Play"))
            {
                bh3.getCards().show(bh3, "instructions");
            }
        }
    }
}

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        }
        else if (command.equals("Flashcards"))
        {
            bh3.getCards().show(bh3, "cards");
        }
        else if (command.equals("Word Identification"))
        {
            bh3.getCards().show(bh3, "game");
            bh3.setStroke(false);
        }
        else if (command.equals("Stroke Order"))
        {
            bh3.getCards().show(bh3, "game");
            bh3.setStroke(true);
        }
    }
}

/*Ethan Liao and Lorence Tsai
 * GamePanel.java
 * Done by Lorence Tsai
 */

import java.awt.Color;
import java.awt.Graphics;

import javax.swing.JPanel;
import java.awt.BorderLayout;
import javax.swing.JButton;

import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;

class GamePanel extends BasePanel
{
    BobHolder bh5;
    public GamePanel(BobHolder bh5In)
    {

```

```

{
    super(bh5In, "game");
    bh5 = bh5In;
    Paint paint = new Paint();
    add(paint, BorderLayout.CENTER);

    JButton home = new JButton("home");
    HomeButtonListener hbl = new HomeButtonListener();

    home.addActionListener(hbl);
    getPanel("right").add(home);
}

class HomeButtonListener implements ActionListener
{
    public void actionPerformed(ActionEvent evt)
    {
        String command = evt.getActionCommand();
        if (command.equals("home"))
        {
            bh5.getCards().show(bh5, "home");
        }
    }
}

class Paint extends JPanel
{
    public void paintComponent(Graphics g)
    {
        super.paintComponent(g);
        drawRects(g);
    }

    public void drawRects(Graphics g)
    {
        g.setColor(Color.PINK);
        g.fillRect(0, 140, 380, 240);
    }
}

```

```

        g.fillRect(380, 140, 380, 240);
        g.fillRect(0, 390, 380, 240);
        g.fillRect(380, 390, 380, 240);

        g.setColor(Color.BLACK);
        g.drawRect(0, 140, 380, 240);
        g.drawRect(380, 140, 380, 240);
        g.drawRect(0, 390, 380, 240);
        g.drawRect(380, 390, 380, 240);
    }
}

/*Ethan Liao and Lorence Tsai
 * Flashcards.java
 * Done by Ethan Liao
 */

import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;

import javax.swing.JButton;

public class Flashcards extends BasePanel
{
    BobHolder bh7;
    public Flashcards(BobHolder bhIn6)
    {
        super(bhIn6, "Review Your Vocab");
        bh7 = bhIn6;
        JButton home2 = new JButton("home");
        HomeButtonListener2 hbl2 = new HomeButtonListener2();

        home2.addActionListener(hbl2);
        getPanel("right").add(home2);
    }

    class HomeButtonListener2 implements ActionListener
    {

```

```

        public void actionPerformed(ActionEvent evt)
        {
            String command = evt.getActionCommand();
            if (command.equals("home"))
            {
                bh7.getCards().show(bh7, "home");
            }
        }
    }
}

/* Ethan Liao and Lorence Tsai
 * Instructions.java
 * Done by Lorence Tsai
 */

import java.awt.Font;

import java.awt.BorderLayout;
import java.awt.Dimension;
import java.awt.FlowLayout;

import java.awt.event.ActionListener;
import java.awt.event.ActionEvent;

import javax.swing.JPanel;
import javax.swing.JTextArea;
import javax.swing.JButton;
import javax.swing.JScrollPane;

class Instructions extends BasePanel
{
    BobHolder bh4;
    public Instructions(BobHolder bhIn4)
    {
        super(bhIn4, "How to Play");
        bh4 = bhIn4;
    }
}

```

```

getPanel("center").setLayout(new FlowLayout(FlowLayout.CENTER, 1280, 10));
String instructions = "In the game panel, you have a frog, which is what you are " +
    "controlling. You move the frog either by dragging it or using the arrow keys" +
    " to the square with the right answer to the question. There will be 4 answer" +
    " choices. After you moved the frog to the desired position, you press submit" +
    " and the computer will grade your answer.";
JTextArea instructionsText = new JTextArea(instructions);
JButton homeButton = new JButton("Home");
instructionsText.setFont(new Font("dialog", Font.PLAIN, 24));

instructionsText.setEditable(false);
instructionsText.setLineWrap(true);
instructionsText.setWrapStyleWord(true);

HomeListener hl = new HomeListener();

homeButton.addActionListener(hl);

JScrollPane scroller = new JScrollPane(instructionsText);
scroller.setPreferredSize(new Dimension(480, 200));
getPanel("center").add(scroller);
getPanel("center").add(homeButton);
}

class HomeListener implements ActionListener
{
    public void actionPerformed(ActionEvent evt)
    {
        String command = evt.getActionCommand();
        if (command.equals("Home"))
        {
            bh4.getCards().show(bh4, "home");
        }
    }
}
}

```