



ITEC30

OBJECT ORIENTED PROGRAMMING

PRACTICAL PROGRAM DOCUMENTATION

Submitted by:
GROUP NAME:
TEAM R-JEY

GROUP MEMBER:
MARY ROSE ANN G. BALBOA
JAY VINCENT S. ENRIQUEZ
JEZRYL MAE P. ROBIS

SUBMITTED TO:
JUEL D. COPER
INSTRUCTOR

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SOURCE CODES:

Window.java

```
package Window;

import javax.swing.*.*;
import java.awt.*.*;
import java.awt.event.*;
import Window.Login;
import javax.swing.border.*;

public class Window {

    private JFrame frame;
    private JTextField userText;
    private JButton login, reset,
exit;
    private JLabel user,
password, loginForm;
    private JPasswordField passwordText;
    private JLabel lblNewLabel;
    private ImageIcon image;

    public static void main(String[] args) { //Main method
        EventQueue.invokeLater(new Runnable() {
            public void run() {
                try {
                    Window window = new Window();//Creates a frame
                    window.frame.setVisible(true);//Makes the frame visible
                } catch (Exception e) {
                    e.printStackTrace();
                }
            }
        });
    }

    public Window() {
        initialize();
    }

    private void initialize() {
        frame = new JFrame("Login");//Sets title of frame
        frame.setFont(new Font("Georgia", Font.PLAIN, 12));
        frame.setForeground(Color.BLACK);
        frame.setLocationRelativeTo(null);//Center the frame
        frame.getContentPane().setFont(new Font("Georgia", Font.PLAIN, 11));
        frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);//To activate close button
        frame.setResizable(false);//Prevent frame from being resize
        frame.setSize(400, 250);
        frame.getContentPane().setBackground(new Color(222, 184, 135));//Change color of
background
        frame.getContentPane().setLayout(null);

        loginForm = new JLabel("Login Form");//Create a label
        loginForm.setBounds(156, 24, 90, 22);
        loginForm.setForeground(Color.YELLOW);
        loginForm.setHorizontalAlignment(SwingConstants.CENTER);
        loginForm.setFont(new Font("Georgia", Font.BOLD, 14));
        frame.getContentPane().add(loginForm);
```



```

user = new JLabel("Username:");
user.setHorizontalAlignment(SwingConstants.LEFT);
user.setBounds(105, 76, 68, 22);
user.setForeground(Color.BLACK);
user.setFont(new Font("Georgia", Font.PLAIN, 14));
frame.getContentPane().add(user);

password = new JLabel("Password:");
password.setHorizontalAlignment(SwingConstants.LEFT);
password.setBounds(106, 103, 68, 22);
password.setForeground(Color.BLACK);
password.setFont(new Font("Georgia", Font.PLAIN, 14));
frame.getContentPane().add(password);

userText = new JTextField();
userText.setBounds(182, 76, 114, 20);
userText.setFont(new Font("Georgia", Font.ITALIC, 12));
userText.setToolTipText("");
userText.setHorizontalAlignment(SwingConstants.LEFT);
frame.getContentPane().add(userText);
userText.setColumns(10);

passwordText = new JPasswordField();
passwordText.setBounds(182, 103, 114, 20);
passwordText.setFont(new Font("Georgia", Font.PLAIN, 12));
passwordText.setHorizontalAlignment(SwingConstants.LEFT);
passwordText.setColumns(10);
frame.getContentPane().add(passwordText);

login = new JButton("Login");
login.setBounds(77, 149, 78, 28);
login.setForeground(Color.BLACK);
login.addActionListener(new ActionListener() {

    public void actionPerformed(ActionEvent arg0) {
        String u = userText.getText();
        @SuppressWarnings("deprecation")
        String p = passwordText.getText();

        if(u.equals("r-jey") && p.equals("secret123")) {
            JOptionPane.showMessageDialog(null, "Username and Password
matched", "Success", JOptionPane.INFORMATION_MESSAGE);
            frame.dispose();
            //Create object
            Login info = new Login();
            info.setVisible(true);
        }
        else if(u!="r-jey" && p.equals("secret123")){
            JOptionPane.showMessageDialog(null, "Invalid
Username", "Invalid", JOptionPane.ERROR_MESSAGE);
        }
        else if(u.equals("r-jey") && p!="secret123"){
            JOptionPane.showMessageDialog(null, "Invalid
Password", "Invalid", JOptionPane.ERROR_MESSAGE);
        }
        else if(u!="r-jey" && p!="secret123"){
            JOptionPane.showMessageDialog(null, "Invalid Username and
Password", "Invalid", JOptionPane.ERROR_MESSAGE);
        }
    }
}

```

```

});
login.setFont(new Font("Georgia", Font.PLAIN, 14));
login.setBorder(new SoftBevelBorder(BevelBorder.LOWERED, new Color(255, 255, 0),
null, Color.YELLOW, null));
frame.getContentPane().add(login);

exit = new JButton("Exit");
exit.setBounds(255, 148, 65, 28);
exit.setForeground(Color.BLACK);
exit.setFont(new Font("Georgia", Font.PLAIN, 14));
exit.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent arg0) {
        int confirm = JOptionPane.showConfirmDialog(null, "Do you want to close
the program?", "Confirm", JOptionPane.YES_NO_OPTION, JOptionPane.QUESTION_MESSAGE);
        if (confirm == JOptionPane.YES_OPTION) {
            System.exit(0);
        }
        else {
            userText.setText(null);
            passwordText.setText(null);
        }
    }
});
exit.setBorder(new SoftBevelBorder(BevelBorder.LOWERED, new Color(255, 255, 0), null,
Color.YELLOW, null));
frame.getContentPane().add(exit);

reset = new JButton("Reset");
reset.setBounds(166, 148, 78, 28);
reset.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent arg0) {
        userText.setText(null);
        passwordText.setText(null);
    }
});
reset.setForeground(Color.BLACK);
reset.setFont(new Font("Georgia", Font.PLAIN, 14));
reset.setBorder(new SoftBevelBorder(BevelBorder.LOWERED, new Color(255, 255, 0),
null, Color.YELLOW, null));
frame.getContentPane().add(reset);

lblNewLabel = new JLabel("");
image = new ImageIcon(getClass().getClassLoader().getResource("login_bg.jpg"));
lblNewLabel.setIcon(image);
lblNewLabel.setBounds(0, 0, 394, 222);
frame.getContentPane().add(lblNewLabel);
}
}

```





Login.java

```
package Window;

import java.awt.*;
import java.awt.event.*;
import javax.swing.*;
import Window.Members;
import Window.Members2;
import Window.Members3;
import Window.DiceGame;
import Window.Difference;
import Window.Calculator;
import Window.CalendarFrame;
import Window.Grades;
import Window.Conversion;

public class Login extends JFrame implements ActionListener{

    private static final long serialVersionUID = 1L;

    private JMenuBar menuBar;
    private JMenu fileMenu, gameMenu, aboutMenu;
    private JMenuItem calcu, diff, calendar, dice, balboa, enriquez, robis;
    private JLabel sky, copyright;
    private JMenuItem grades;
    private JMenuItem conversion;
    private ImageIcon imageSky, imageCal, imageDiff, imageConversion, imageGrades, imageDice,
    imageCalcu, imageBoa, imageJay, imageJez;

    public static void main(String[] args) {
        EventQueue.invokeLater(new Runnable() {
            public void run() {
                try {
                    Login frame = new Login();
                    frame.setVisible(true);
                } catch (Exception e) {
                    e.printStackTrace();
                }
            }
        });
    }

    public Login() {
```

```

setBackground(Color.BLACK);

this.setTitle("Team R-Jey");
this.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
this.setBounds(100, 100, 450, 300);
this.setIconImage(Toolkit.getDefaultToolkit().getImage("team.jpg"));
this.setResizable(false);
getContentPane().setLayout(null);

copyright = new JLabel("Copyright 2021");
copyright.setForeground(Color.YELLOW);
copyright.setHorizontalAlignment(SwingConstants.CENTER);
copyright.setFont(new Font("Georgia", Font.BOLD, 12));
copyright.setBounds(163, 214, 138, 14);
getContentPane().add(copyright);

sky = new JLabel();
sky.setBounds(0, 0, 450, 251);
imageSky = new ImageIcon(getClass().getClassLoader().getResource("sky.jpg"));
sky.setIcon(imageSky);
getContentPane().add(sky);

menuBar = new JMenuBar();
menuBar.setFont(new Font("Georgia", Font.PLAIN, 12));

fileMenu = new JMenu("File");
fileMenu.setFont(new Font("Georgia", Font.PLAIN, 12));
fileMenu.setForeground(Color.BLACK);
calcu = new JMenuItem("Calculator");
imageCalcu = new ImageIcon(getClass().getClassLoader().getResource("calcu.jpg"));
calcu.setIcon(imageCalcu);
calcu.setFont(new Font("Georgia", Font.PLAIN, 12));
calcu.setForeground(Color.BLACK);
calcu.addActionListener(this);
getContentPane().setLayout(null);

calendar = new JMenuItem("Calendar");
imageCal = new ImageIcon(getClass().getClassLoader().getResource("cal.jpg"));
calendar.setIcon(imageCal);
calendar.setForeground(Color.BLACK);
calendar.setFont(new Font("Georgia", Font.PLAIN, 12));
getContentPane().setLayout(null);
calendar.addActionListener(this);

fileMenu.add(calcu);
fileMenu.add(calendar);

menuBar.add(fileMenu);

diff = new JMenuItem("Difference");
imageDiff = new ImageIcon(getClass().getClassLoader().getResource("minus.jpg"));
diff.setIcon(imageDiff);
diff.setForeground(Color.BLACK);
diff.setFont(new Font("Georgia", Font.PLAIN, 12));
diff.addActionListener(this);
fileMenu.add(diff);

conversion = new JMenuItem("Conversion");
imageConversion = new
ImageIcon(getClass().getClassLoader().getResource("conversion_icon.jpg"));
conversion.setIcon(imageConversion);

```

```

conversion.setForeground(Color.BLACK);
conversion.setFont(new Font("Georgia", Font.PLAIN, 12));
conversion.addActionListener(this);
fileMenu.add(conversion);

grades = new JMenuItem("Grades");
imageGrades = new ImageIcon(getClass().getClassLoader().getResource("grades.jpg"));
grades.setIcon(imageGrades);
grades.setForeground(Color.BLACK);
grades.setFont(new Font("Georgia", Font.PLAIN, 12));
grades.addActionListener(this);
fileMenu.add(grades);

gameMenu = new JMenu("Game");
gameMenu.setFont(new Font("Georgia", Font.PLAIN, 12));
gameMenu.setForeground(Color.BLACK);
dice = new JMenuItem("Dice Game");
imageDice = new ImageIcon(getClass().getClassLoader().getResource("dice.jpg"));
dice.setIcon(imageDice);
dice.setFont(new Font("Georgia", Font.PLAIN, 12));
dice.setForeground(Color.BLACK);
dice.addActionListener(this);
gameMenu.add(dice);
menuBar.add(gameMenu);

aboutMenu = new JMenu("Programmers");
aboutMenu.setFont(new Font("Georgia", Font.PLAIN, 12));
aboutMenu.setForeground(Color.BLACK);
balboa = new JMenuItem("Roseann Balboa");
imageBoa = new ImageIcon(getClass().getClassLoader().getResource("boa1_icon.jpg"));
balboa.setIcon(imageBoa);
balboa.setFont(new Font("Georgia", Font.PLAIN, 12));
balboa.setForeground(Color.BLACK);
balboa.addActionListener(new ActionListener() {
    @Override
    public void actionPerformed(ActionEvent e) {
        if(e.getSource()==balboa) {
            new Members();
        }
    }
});
aboutMenu.add(balboa);

enriquez = new JMenuItem("Jay Enriquez");
imageJay = new ImageIcon(getClass().getClassLoader().getResource("jayyy_icon.jpg"));
enriquez.setIcon(imageJay);
enriquez.setFont(new Font("Georgia", Font.PLAIN, 12));
enriquez.setForeground(Color.BLACK);
enriquez.addActionListener(new ActionListener() {
    @Override
    public void actionPerformed(ActionEvent e) {
        if(e.getSource()==enriquez) {
            new Members2();
        }
    }
});
aboutMenu.add(enriquez);
menuBar.add(aboutMenu);

robis = new JMenuItem("Jezryl Robis");
imageJez = new ImageIcon(getClass().getClassLoader().getResource("jez1_icon.jpg"));

```



```

robis.setIcon(imageJez);
robis.setFont(new Font("Georgia", Font.PLAIN, 12));
robis.setForeground(Color.BLACK);
robis.addActionListener(new ActionListener() {
    @Override
    public void actionPerformed(ActionEvent e) {
        if(e.getSource()==robis) {
            new Members3();
        }
    }
});
aboutMenu.add(robis);
menuBar.add(aboutMenu);
this.setJMenuBar(menuBar);
this.setVisible(true);
}
@Override
public void actionPerformed(ActionEvent e) {
    if(e.getSource()==calcu) {
        new Calculator();
    }
    if(e.getSource()==diff) {
        new Difference();
    }
}

```



```

}
if(e.getSource()==calendar) {
    new CalendarFrame();
}
if(e.getSource()==conversion) {
    new Conversion();
}
if(e.getSource()==dice) {
    new DiceGame();
}
if(e.getSource()==grades) {
    new Grades();
}
}

```





Calculator.java

```
package Window;

import java.awt.*;
import javax.swing.*;
import java.awt.event.*;

public class Calculator extends
JFrame{

    private static final long
serialVersionUID = 1L;

    private JFrame frame;
    private JTextField textField;
    private JButton btnBackSpace,
btnClear, btnDot, btnEqual, btnPlus,
btnMinus, btnTimes, btnDivide,
btnPercentage;
    private JButton btn0, btn1, btn2, btn3, btn4, btn5, btn6, btn7, btn8, btn9, btn00;
    private ImageIcon imageCalcu;

    double first, second, result;
    String operation, answer;
    private JLabel label;

    public static void main(String[] args) {
        EventQueue.invokeLater(new Runnable() {
            public void run() {
                try {
                    Calculator calcu = new Calculator();
                    calcu.frame.setVisible(true);
                } catch (Exception e) {
                    e.printStackTrace();
                }
            }
        });
    }

    public Calculator() {
        initialize();
    }

    private void initialize() {
        frame = new JFrame();
        frame.setIconImage(Toolkit.getDefaultToolkit().getImage("calcu.jpg"));
        frame.setBounds(100, 100, 288, 364);
        frame.setDefaultCloseOperation(JFrame.DISPOSE_ON_CLOSE);
        frame.setTitle("Calculator");
        frame.setResizable(false);
        frame.getContentPane().setBackground(new Color(222, 184, 135));
        frame.getContentPane().setLayout(null);

        textField = new JTextField();
        textField.setFont(new Font("Tahoma", Font.BOLD, 18));
        textField.setBounds(10, 11, 255, 64);
        frame.getContentPane().add(textField);
        textField.setColumns(10);

        btnBackSpace = new JButton("\uF0E7");
```



```

btnBackSpace.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent arg0) {
        String backSpace = null;
        if(textField.getText().length() > 0) {
            StringBuilder str = new StringBuilder(textField.getText());
            str.deleteCharAt(textField.getText().length()-1);
            backSpace = str.toString();
            textField.setText(backSpace);
        }
    }
});
btnBackSpace.setFont(new Font("Wingdings", Font.BOLD, 18));
btnBackSpace.setBounds(10, 86, 57, 49);
frame.getContentPane().add(btnBackSpace);

btn7 = new JButton("7");
btn7.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        String number = textField.getText()+btn7.getText();
        textField.setText(number);
    }
});

btnClear = new JButton("C");
btnClear.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        textField.setText(null);
    }
});
btnClear.setFont(new Font("Tahoma", Font.BOLD, 18));
btnClear.setBounds(77, 86, 57, 49);
frame.getContentPane().add(btnClear);

btn00 = new JButton("00");
btn00.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        String number = textField.getText()+btn00.getText();
        textField.setText(number);
    }
});
btn00.setFont(new Font("Tahoma", Font.BOLD, 18));
btn00.setBounds(144, 86, 57, 49);
frame.getContentPane().add(btn00);

btn9 = new JButton("9");
btn9.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        String number = textField.getText()+btn9.getText();
        textField.setText(number);
    }
});
btn9.setFont(new Font("Tahoma", Font.BOLD, 18));
btn9.setBounds(144, 134, 57, 49);
frame.getContentPane().add(btn9);

btn8 = new JButton("8");
btn8.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        String number = textField.getText()+btn8.getText();
        textField.setText(number);
    }
});

```

```

});
btn8.setFont(new Font("Tahoma", Font.BOLD, 18));
btn8.setBounds(77, 134, 57, 49);
frame.getContentPane().add(btn8);
btn7.setFont(new Font("Tahoma", Font.BOLD, 18));
btn7.setBounds(10, 134, 57, 49);
frame.getContentPane().add(btn7);

btn4 = new JButton("4");
btn4.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        String number = textField.getText()+btn4.getText();
        textField.setText(number);
    }
});

btn6 = new JButton("6");
btn6.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        String number = textField.getText()+btn6.getText();
        textField.setText(number);
    }
});
btn6.setFont(new Font("Tahoma", Font.BOLD, 18));
btn6.setBounds(144, 182, 57, 49);
frame.getContentPane().add(btn6);

btn5 = new JButton("5");
btn5.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        String number = textField.getText()+btn5.getText();
        textField.setText(number);
    }
});
btn5.setFont(new Font("Tahoma", Font.BOLD, 18));
btn5.setBounds(77, 182, 57, 49);
frame.getContentPane().add(btn5);
btn4.setFont(new Font("Tahoma", Font.BOLD, 18));
btn4.setBounds(10, 182, 57, 49);
frame.getContentPane().add(btn4);

btn1 = new JButton("1");
btn1.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        String number = textField.getText()+btn1.getText();
        textField.setText(number);
    }
});

btn3 = new JButton("3");
btn3.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        String number = textField.getText()+btn3.getText();
        textField.setText(number);
    }
});
btn3.setFont(new Font("Tahoma", Font.BOLD, 18));
btn3.setBounds(144, 230, 57, 49);
frame.getContentPane().add(btn3);

btn2 = new JButton("2");

```



```

btn2.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        String number = textField.getText()+btn2.getText();
        textField.setText(number);
    }
});
btn2.setFont(new Font("Tahoma", Font.BOLD, 18));
btn2.setBounds(77, 230, 57, 49);
frame.getContentPane().add(btn2);
btn1.setFont(new Font("Tahoma", Font.BOLD, 18));
btn1.setBounds(10, 230, 57, 49);
frame.getContentPane().add(btn1);

btn0 = new JButton("0");
btn0.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        String number = textField.getText()+btn0.getText();
        textField.setText(number);
    }
});
btn0.setFont(new Font("Tahoma", Font.BOLD, 18));
btn0.setBounds(10, 280, 57, 49);
frame.getContentPane().add(btn0);

btnDot = new JButton(".");
btnDot.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        String number = textField.getText()+btnDot.getText();
        textField.setText(number);
    }
});

btnPlus = new JButton("+");
btnPlus.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        first = Double.parseDouble(textField.getText());
        textField.setText("");
        operation = "+";
    }
});
btnPlus.setFont(new Font("Tahoma", Font.BOLD, 18));
btnPlus.setBounds(211, 86, 57, 49);
frame.getContentPane().add(btnPlus);

btnMinus = new JButton("-");
btnMinus.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        first = Double.parseDouble(textField.getText());
        textField.setText("");
        operation = "-";
    }
});
btnMinus.setFont(new Font("Tahoma", Font.BOLD, 18));
btnMinus.setBounds(211, 134, 57, 49);
frame.getContentPane().add(btnMinus);

btnTimes = new JButton("*");
btnTimes.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        first = Double.parseDouble(textField.getText());
        textField.setText("");
    }
});

```

```

        operation = "*";
    }
});
btnTimes.setFont(new Font("Tahoma", Font.BOLD, 18));
btnTimes.setBounds(211, 182, 57, 49);
frame.getContentPane().add(btnTimes);

btnDivide = new JButton("/");
btnDivide.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        first = Double.parseDouble(textField.getText());
        textField.setText("");
        operation = "/";
    }
});
btnDivide.setFont(new Font("Tahoma", Font.BOLD, 18));
btnDivide.setBounds(211, 230, 57, 49);
frame.getContentPane().add(btnDivide);

btnPercentage = new JButton("%");
btnPercentage.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        first = Double.parseDouble(textField.getText());
        textField.setText("");
        operation = "%";
    }
});
btnPercentage.setFont(new Font("Tahoma", Font.BOLD, 18));
btnPercentage.setBounds(211, 280, 57, 49);
frame.getContentPane().add(btnPercentage);
btnDot.setFont(new Font("Tahoma", Font.BOLD, 18));
btnDot.setBounds(77, 280, 57, 49);
frame.getContentPane().add(btnDot);

btnEqual = new JButton("=");
btnEqual.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        String answer;
        second = Double.parseDouble(textField.getText());
        if(operation == "+") {
            result = first + second;
            answer = String.format("%.2f", result);
            textField.setText(answer);
        }
        else if(operation == "-") {
            result = first - second;
            answer = String.format("%.2f", result);
            textField.setText(answer);
        }
        else if(operation == "*") {
            result = first * second;
            answer = String.format("%.2f", result);
            textField.setText(answer);
        }
        else if(operation == "/") {
            result = first / second;
            answer = String.format("%.2f", result);
            textField.setText(answer);
        }
        else if(operation == "%") {
            result = first % second;

```

```
        answer = String.format("%.2f", result);
        textField.setText(answer);
    }
});
btnEqual.setFont(new Font("Tahoma", Font.BOLD, 18));
btnEqual.setBounds(144, 280, 57, 49);
frame.getContentPane().add(btnEqual);

label = new JLabel("");
imageCalcu = new ImageIcon(getClass().getClassLoader().getResource("calcu_bg.jpg"));
label.setIcon(imageCalcu);
label.setBounds(-2, -2, 290, 340);
frame.getContentPane().add(label);

frame.setVisible(true);
}
}
```

CalendarFrame.java

```
package Window;

import java.awt.*;
import java.awt.EventQueue;
import javax.swing.*;
import com.toedter.calendar.*;

public class
CalendarFrame extends
JFrame{

    private static
    final long
    serialVersionUID = 1L;

    private JFrame frame;
    private JLabel calendarBg, dateToday;
    private JDayChooser day;
    private JMonthChooser month;
    private JYearChooser year;
    private ImageIcon imageCal;

    public static void main(String[] args) {
        EventQueue.invokeLater(new Runnable() {
            public void run() {
                try {
                    Calendar window = new Calendar();
                    window.frame.setVisible(true);
                } catch (Exception e) {
                    e.printStackTrace();
                }
            }
        });
    }

    public CalendarFrame() {
        initialize();
    }

    private void initialize() {
        frame = new JFrame("Calendar");//Sets title of frame
        frame.setFont(new Font("Georgia", Font.PLAIN, 12));
        frame.setForeground(Color.BLACK);
        frame.setLocationRelativeTo(null);//Center the frame
        frame.getContentPane().setFont(new Font("Georgia", Font.PLAIN, 11));
        frame.setDefaultCloseOperation(JFrame.DISPOSE_ON_CLOSE);
        frame.setResizable(false);//Prevent frame from being resize
        frame.setSize(400, 250);
        frame.setIconImage(Toolkit.getDefaultToolkit().getImage("calendar_bg.jpg"));
        ImageIcon icon = new ImageIcon("cal.jpg");//Create an ImageIcon
        frame.setIconImage(icon.getImage());//Change icon of frame
        frame.getContentPane().setBackground(new Color(222, 184, 135));
        frame.getContentPane().setLayout(null);

        dateToday = new JLabel("DATE TODAY");
        dateToday.setBounds(148, 9, 121, 14);
        dateToday.setHorizontalAlignment(SwingConstants.LEFT);
```



```
dateToday.setFont(new Font("Georgia", Font.BOLD, 12));
dateToday.setForeground(Color.WHITE);
frame.getContentPane().add(dateToday);

day = new JDayChooser();
day.setBounds(104, 59, 182, 133);
frame.getContentPane().add(day);

month = new JMonthChooser();
month.setBounds(114, 34, 98, 20);
frame.getContentPane().add(month);

year = new JYearChooser();
year.setBounds(222, 34, 47, 20);
frame.getContentPane().add(year);

calendarBg = new JLabel("");
calendarBg.setBounds(-3, -3, 397, 225);
calendarBg.setBackground(Color.BLACK);
imageCal = new ImageIcon(getClass().getClassLoader().getResource("calendar_bg.jpg"));
calendarBg.setIcon(imageCal);
frame.getContentPane().add(calendarBg);

frame.setVisible(true);
```

```
}
```

```
}
```



```
Difference.java
package Window;
```

```
import java.awt.*;
import java.awt.event.*;
import javax.swing.*;
import javax.swing.border.*;
```

```
public class Difference extends
JFrame{
```

```
    private static final long
serialVersionUID = 1L;
```

```
    private JFrame frame3;
    private JLabel lblThis,
lblThree, lblDisplay, lblThe,
lblPress, bg;
```

```
    private JButton btnStart;
    private int num1, num2,
num3, value1, value2, value3, max, min, difference, response;
    private ImageIcon imageDiff;
```

```
    public static void main(String[] args) {
        EventQueue.invokeLater(new Runnable() {
            public void run() {
                try {
                    Difference window = new Difference();
                    window.frame3.setVisible(true);
                } catch (Exception e) {
                    e.printStackTrace();
                }
            }
        });
    }
```

```
    public Difference() {
        initialize();
    }
```

```
    private void initialize() {
        frame3 = new JFrame("Difference");//Sets title of frame
        frame3.setFont(new Font("Georgia", Font.PLAIN, 12));
        frame3.setForeground(Color.BLACK);
        frame3.setLocationRelativeTo(null);//Center the frame
        frame3.getContentPane().setFont(new Font("Georgia", Font.PLAIN, 11));
        frame3.setDefaultCloseOperation(JFrame.DISPOSE_ON_CLOSE);
        frame3.setResizable(false);//Prevent frame from being resize
        frame3.setSize(289, 187);
        frame3.setIconImage(Toolkit.getDefaultToolkit().getImage("dice.jpg"));
        ImageIcon icon = new ImageIcon("dice.jpg");//Create an ImageIcon
        frame3.setIconImage(icon.getImage());//Change icon of frame
        frame3.getContentPane().setBackground(new Color(222, 184, 135));
        frame3.getContentPane().setLayout(null);
```

```
        lblThis = new JLabel("This program accepts ");
        lblThis.setBounds(10, 24, 263, 14);
        lblThis.setHorizontalAlignment(SwingConstants.CENTER);
        lblThis.setForeground(Color.WHITE);
        lblThis.setFont(new Font("Georgia", Font.BOLD, 12));
        frame3.getContentPane().add(lblThis);
```

```
        lblThree = new JLabel("three unique integers and");
        lblThree.setBounds(10, 36, 263, 14);
```



```

lblThree.setHorizontalAlignment(SwingConstants.CENTER);
lblThree.setForeground(Color.WHITE);
lblThree.setFont(new Font("Georgia", Font.BOLD, 12));
frame3.getContentPane().add(lblThree);

lblDisplay = new JLabel("display the difference between");
lblDisplay.setBounds(10, 49, 263, 14);
lblDisplay.setHorizontalAlignment(SwingConstants.CENTER);
lblDisplay.setForeground(Color.WHITE);
lblDisplay.setFont(new Font("Georgia", Font.BOLD, 12));
frame3.getContentPane().add(lblDisplay);

lblThe = new JLabel("the highest and lowest number");
lblThe.setBounds(10, 61, 263, 14);
lblThe.setHorizontalAlignment(SwingConstants.CENTER);
lblThe.setForeground(Color.WHITE);
lblThe.setFont(new Font("Georgia", Font.BOLD, 12));
frame3.getContentPane().add(lblThe);

lblPress = new JLabel("Press START to continue");
lblPress.setBounds(10, 86, 263, 14);
lblPress.setHorizontalAlignment(SwingConstants.CENTER);
lblPress.setForeground(new Color(255, 215, 0));
lblPress.setFont(new Font("Georgia", Font.BOLD, 12));
frame3.getContentPane().add(lblPress);

btnStart = new JButton("START");
btnStart.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent arg0) {
        do {
            String s1 = JOptionPane.showInputDialog("Enter First Number:");
            num1 = Integer.parseInt(s1);
            value1 = Math.abs(num1);
            String s2 = JOptionPane.showInputDialog("Enter Second Number:");
            num2 = Integer.parseInt(s2);
            value2 = Math.abs(num2);
            String s3 = JOptionPane.showInputDialog("Enter Third Number:");
            num3 = Integer.parseInt(s3);
            value3 = Math.abs(num3);
            max = 0;
            min = 0;
            if (value1>=value2 && value1>=value3) {
                max = value1;
                if (value2<value3) {
                    min = value2;
                    difference = max - min;
                    JOptionPane.showMessageDialog(null, "The difference
of " + max + " and " + min + " is " + difference);
                }
                else if (value3<value2) {
                    min = value3;
                    difference = max-min;
                    JOptionPane.showMessageDialog(null, "The difference
of " + max + " and " + min + " is " + (difference));
                }
            }
            else if (value2>=value1 && value2>=value3) {
                max = value2;
                if (value1<value3) {
                    min = value1;
                    difference = max-min;

```

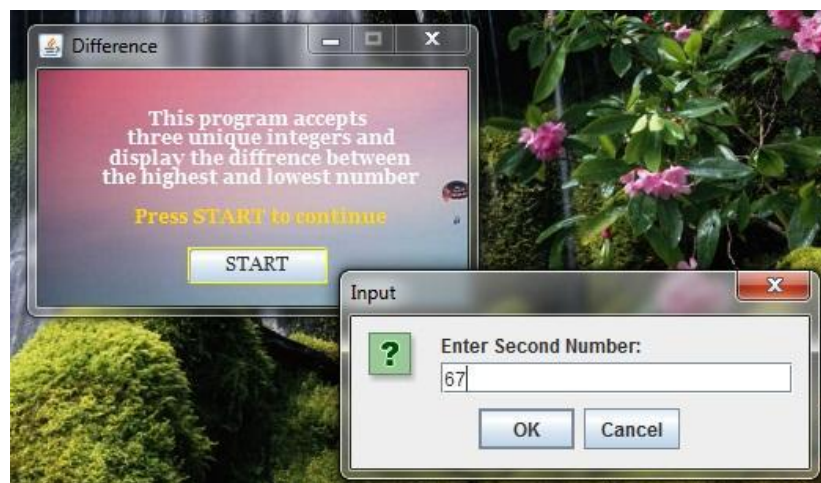
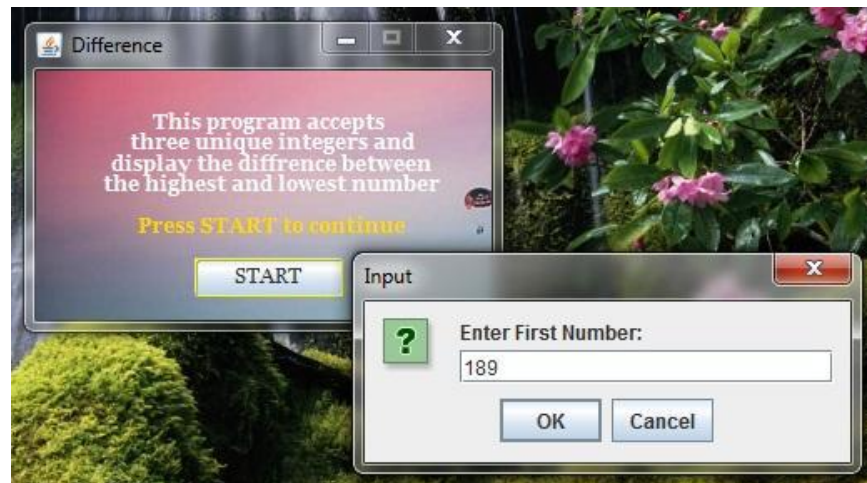
```

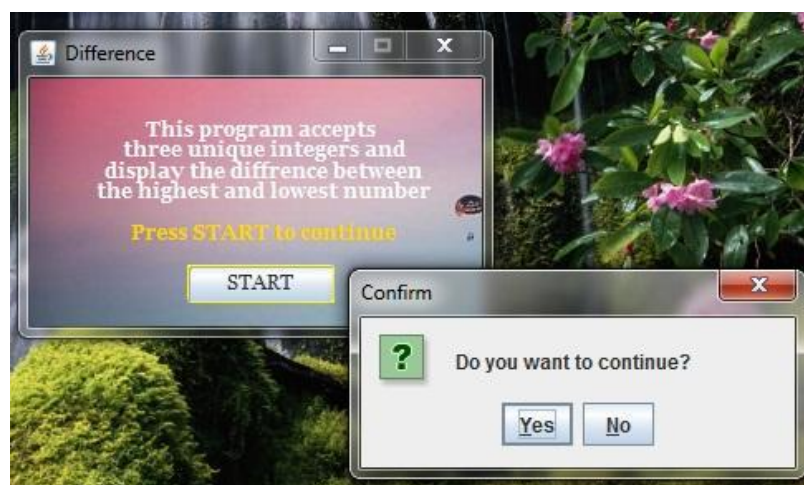
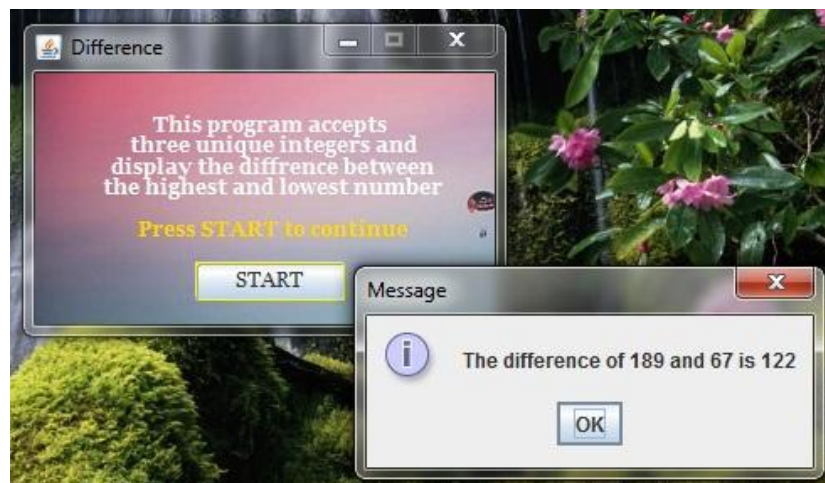
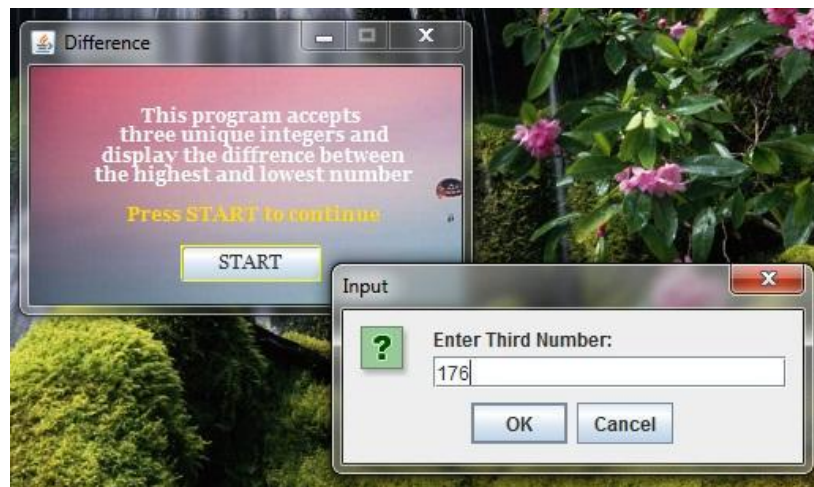
JOptionPane.showMessageDialog(null, "The difference
of " + max + " and " + min + " is " + difference);
    }
    else if (value3<value1) {
        min = value3;
        difference = max-min;
        JOptionPane.showMessageDialog(null, "The difference
of " + max + " and " + min + " is " + difference);
    }
}
else if (value3>=value1 && value3>=value2) {
    max = value3;
    if (value2<value1) {
        min = value2;
        difference = max-min;
        JOptionPane.showMessageDialog(null, "The difference
of " + max + " and " + min + " is " + difference);
    }
    else if (value1<value2) {
        min = value1;
        difference = max-min;
        JOptionPane.showMessageDialog(null, "The difference
of " + max + " and " + min + " is " + difference);
    }
}
else {
    JOptionPane.showMessageDialog(null, "Invalid Input");
}
response= JOptionPane.showConfirmDialog(null,"Do you want to
continue?", "Confirm", JOptionPane.YES_NO_OPTION, JOptionPane.QUESTION_MESSAGE);
// If the choice is 'No', the program will exit
}while(response == JOptionPane.YES_OPTION);
    }
});
btnStart.setFont(new Font("Georgia", Font.PLAIN, 12));
btnStart.setBorder(new SoftBevelBorder(BevelBorder.LOWERED, new Color(255, 255, 0),
null, Color.YELLOW, null));
btnStart.setBounds(95, 112, 89, 23);
frame3.getContentPane().add(btnStart);

bg = new JLabel("");
imageDiff = new ImageIcon(getClass().getClassLoader().getResource("dice_bg.jpg"));
bg.setIcon(imageDiff);
bg.setBounds(0, 0, 283, 159);
frame3.getContentPane().add(bg);

frame3.setVisible(true);
}
}

```





Conversion.java

```
package Window;|

import java.awt.*;
import javax.swing.*;
import javax.swing.border.*;
import java.awt.event.*;

public class Conversion extends
JFrame{

    private static final long
serialVersionUID = 1L;

    private JFrame frame;
    private JLabel
lblKilometerkm, lblKilometerkm_1,
lblConvert, lblMetermm, label;
    private JTextField textField;
    private JButton btnConvert;
    private JLabel bg;
    private ImageIcon imageConversion;

    public static void main(String[] args) {
        EventQueue.invokeLater(new Runnable() {
            public void run() {
                try {
                    Conversion window = new Conversion();
                    window.frame.setVisible(true);
                } catch (Exception e) {
                    e.printStackTrace();
                }
            }
        });
    }

    public Conversion() {
        initialize();
    }

    private void initialize() {
        frame = new JFrame("Conversion");//Sets title of frame
        frame.setFont(new Font("Georgia", Font.PLAIN, 12));
        frame.setForeground(Color.BLACK);
        frame.setLocationRelativeTo(null);//Center the frame
        frame.getContentPane().setFont(new Font("Georgia", Font.PLAIN, 11));
        frame.setDefaultCloseOperation(JFrame.DISPOSE_ON_CLOSE);
        frame.setResizable(false);//Prevent frame from being resize
        frame.setSize(280, 193);
        frame.setIconImage(Toolkit.getDefaultToolkit().getImage("conversion_icon.jpg"));
        ImageIcon icon = new ImageIcon("conversion_icon.jpg");//Create an ImageIcon
        frame.setIconImage(icon.getImage());//Change icon of frame
        frame.getContentPane().setBackground(new Color(222, 184, 135));
        frame.getContentPane().setLayout(null);

        lblKilometerkm = new JLabel("KILOMETER INTO METER");
        lblKilometerkm.setForeground(Color.WHITE);
        lblKilometerkm.setBounds(10, 39, 259, 14);
        lblKilometerkm.setFont(new Font("Georgia", Font.BOLD, 12));
        lblKilometerkm.setHorizontalAlignment(SwingConstants.CENTER);
```



```

frame.getContentPane().add(lblKilometerkm);

lblKilometerkm_1 = new JLabel("Kilometer (km)");
lblKilometerkm_1.setForeground(Color.BLACK);
lblKilometerkm_1.setBounds(20, 64, 97, 14);
lblKilometerkm_1.setHorizontalAlignment(SwingConstants.LEFT);
lblKilometerkm_1.setFont(new Font("Georgia", Font.PLAIN, 12));
frame.getContentPane().add(lblKilometerkm_1);

lblConvert = new JLabel("CONVERT ");
lblConvert.setForeground(Color.WHITE);
lblConvert.setBounds(10, 25, 259, 14);
lblConvert.setHorizontalAlignment(SwingConstants.CENTER);
lblConvert.setFont(new Font("Georgia", Font.BOLD, 12));
frame.getContentPane().add(lblConvert);

lblMetermm = new JLabel("Meter (mm)");
lblMetermm.setForeground(Color.BLACK);
lblMetermm.setBounds(169, 64, 86, 14);
lblMetermm.setHorizontalAlignment(SwingConstants.RIGHT);
lblMetermm.setFont(new Font("Georgia", Font.PLAIN, 12));
frame.getContentPane().add(lblMetermm);

label = new JLabel("->");
label.setHorizontalAlignment(SwingConstants.CENTER);
label.setFont(new Font("Georgia", Font.BOLD, 12));
label.setBounds(120, 64, 39, 14);
frame.getContentPane().add(label);

textField = new JTextField();
textField.setForeground(Color.BLACK);
textField.setFont(new Font("Georgia", Font.PLAIN, 12));
textField.setBounds(83, 89, 106, 20);
textField.setColumns(10);
frame.getContentPane().add(textField);

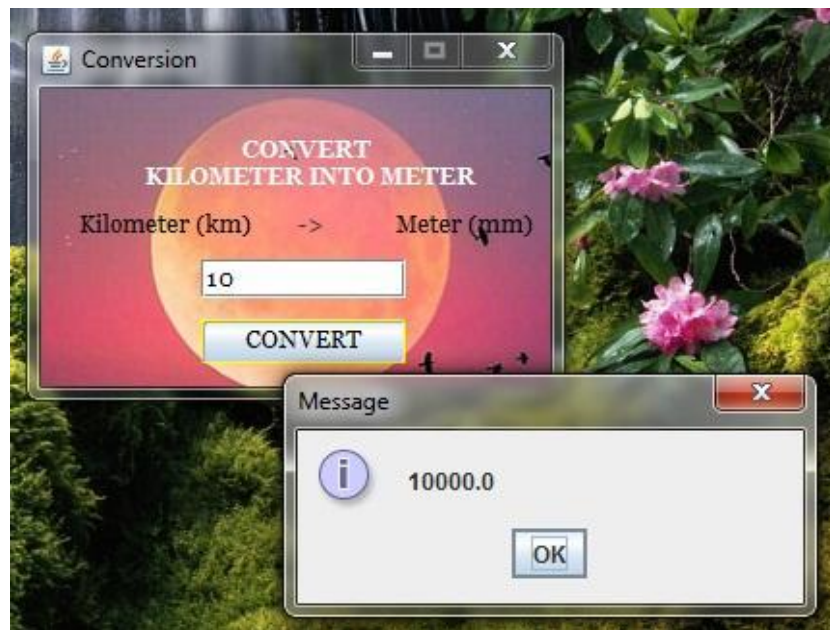
btnConvert = new JButton("CONVERT");
btnConvert.setForeground(Color.BLACK);
btnConvert.setFont(new Font("Georgia", Font.PLAIN, 12));
btnConvert.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent arg0) {
        Double amt = Double.parseDouble(textField.getText());
        Double convert = amt * 1000;
        JOptionPane.showMessageDialog(null, String.valueOf(convert));
    }
});
btnConvert.setBounds(83, 120, 106, 23);
btnConvert.setBorder(new SoftBevelBorder(BevelBorder.LOWERED, new Color(255, 255, 0),
null, Color.YELLOW, null));
frame.getContentPane().add(btnConvert);

bg = new JLabel("");
bg.setForeground(Color.WHITE);
imageConversion = new
ImageIcon(getClass().getClassLoader().getResource("conversion_bg.jpg"));
bg.setIcon(imageConversion);
bg.setBounds(0, 0, 274, 180);
frame.getContentPane().add(bg);

frame.setVisible(true);
}

```

}



Grades.java

```
package Window;

import java.awt.*;
import javax.swing.*;
import javax.swing.border.*;
import java.awt.event.*;

public class Grades extends JFrame{

    private static final long
    serialVersionUID = 1L;

    private JFrame frame;
    private JLabel
    multipleGrades, grades_bg,
    enterGrades, average, finalGrade,
    remarks;

    private JTextField firstGrade, secondGrade, thirdGrade, fourthGrade, tfAverage,
    tfFinalGrade;
    private JButton enter, clear, exit;
    private JTextField tfRemarks;
    private ImageIcon imageGrades;

    public static void main(String[] args) {
        EventQueue.invokeLater(new Runnable() {
            public void run() {
                try {
                    Grades window = new Grades();
                    window.frame.setVisible(true);
                } catch (Exception e) {
                    e.printStackTrace();
                }
            }
        });
    }

    public Grades() {
        initialize();
    }

    private void initialize() {
        frame = new JFrame("Grades");//Sets title of frame
        frame.setFont(new Font("Georgia", Font.PLAIN, 12));
        frame.setForeground(Color.BLACK);
        frame.setLocationRelativeTo(null);//Center the frame
        frame.getContentPane().setFont(new Font("Georgia", Font.PLAIN, 11));
        frame.setDefaultCloseOperation(JFrame.DISPOSE_ON_CLOSE);
        frame.setResizable(false);//Prevent frame from being resize
        frame.setSize(400, 250);
        frame.setIconImage(Toolkit.getDefaultToolkit().getImage("grades_bg.jpg"));
        ImageIcon icon = new ImageIcon("grades.jpg");//Create an ImageIcon
        frame.setIconImage(icon.getImage());//Change icon of frame
        frame.getContentPane().setBackground(new Color(222, 184, 135));
        frame.getContentPane().setLayout(null);

        multipleGrades = new JLabel("Multiple Grades");
        multipleGrades.setForeground(Color.BLACK);
        multipleGrades.setBounds(130, 27, 137, 14);
        multipleGrades.setHorizontalAlignment(SwingConstants.CENTER);
```




```

multipleGrades.setFont(new Font("Georgia", Font.BOLD, 14));
frame.getContentPane().add(multipleGrades);

enterGrades = new JLabel("Grades:");
enterGrades.setForeground(Color.WHITE);
enterGrades.setBounds(74, 55, 90, 14);
enterGrades.setHorizontalAlignment(SwingConstants.LEFT);
enterGrades.setFont(new Font("Georgia", Font.BOLD, 12));
frame.getContentPane().add(enterGrades);

average = new JLabel("Average:");
average.setForeground(Color.WHITE);
average.setBounds(74, 83, 90, 14);
average.setHorizontalAlignment(SwingConstants.LEFT);
average.setFont(new Font("Georgia", Font.BOLD, 12));
frame.getContentPane().add(average);

finalGrade = new JLabel("Final Grade:");
finalGrade.setForeground(Color.WHITE);
finalGrade.setBounds(74, 110, 90, 14);
finalGrade.setHorizontalAlignment(SwingConstants.LEFT);
finalGrade.setFont(new Font("Georgia", Font.BOLD, 12));
frame.getContentPane().add(finalGrade);

remarks = new JLabel("Remarks:");
remarks.setHorizontalAlignment(SwingConstants.LEFT);
remarks.setForeground(Color.WHITE);
remarks.setFont(new Font("Georgia", Font.BOLD, 12));
remarks.setBounds(74, 138, 90, 14);
frame.getContentPane().add(remarks);

firstGrade = new JTextField();
firstGrade.setFont(new Font("Georgia", Font.PLAIN, 12));
firstGrade.setBounds(172, 52, 27, 20);
frame.getContentPane().add(firstGrade);
firstGrade.setColumns(10);

secondGrade = new JTextField();
secondGrade.setFont(new Font("Georgia", Font.PLAIN, 12));
secondGrade.setBounds(210, 52, 27, 20);
secondGrade.setColumns(10);
frame.getContentPane().add(secondGrade);

thirdGrade = new JTextField();
thirdGrade.setFont(new Font("Georgia", Font.PLAIN, 12));
thirdGrade.setBounds(247, 52, 27, 20);
thirdGrade.setColumns(10);
frame.getContentPane().add(thirdGrade);

fourthGrade = new JTextField();
fourthGrade.setFont(new Font("Georgia", Font.PLAIN, 12));
fourthGrade.setBounds(284, 52, 27, 20);
fourthGrade.setColumns(10);
frame.getContentPane().add(fourthGrade);

tfRemarks = new JTextField();
tfRemarks.setFont(new Font("Georgia", Font.PLAIN, 12));
tfRemarks.setEditable(false);
tfRemarks.setColumns(10);
tfRemarks.setBounds(172, 135, 139, 20);
frame.getContentPane().add(tfRemarks);

```



```

tfAverage = new JTextField();
tfAverage.setFont(new Font("Georgia", Font.PLAIN, 12));
tfAverage.setEditable(false);
tfAverage.setBounds(172, 80, 139, 20);
tfAverage.setColumns(10);
frame.getContentPane().add(tfAverage);

tfFinalGrade = new JTextField();
tfFinalGrade.setFont(new Font("Georgia", Font.PLAIN, 12));
tfFinalGrade.setEditable(false);
tfFinalGrade.setBounds(172, 107, 139, 20);
tfFinalGrade.setColumns(10);
frame.getContentPane().add(tfFinalGrade);

enter = new JButton("Enter");
enter.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent arg0) {
        double g, g1, g2, g3;

        g = Double.parseDouble(firstGrade.getText());
        g1 = Double.parseDouble(secondGrade.getText());
        g2 = Double.parseDouble(thirdGrade.getText());
        g3 = Double.parseDouble(fourthGrade.getText());

        g = (g + g1 + g2 + g3) / 4;

        if (g >= 98 && g <= 100) {
            tfFinalGrade.setText("1.00");
            tfRemarks.setText("PASSED");
            tfAverage.setText(Double.toString(g));
        }
        else if (g >= 95 && g <= 97) {
            tfFinalGrade.setText("1.25");
            tfRemarks.setText("PASSED");
            tfAverage.setText(Double.toString(g));
        }
        else if (g >= 92 && g <= 94) {
            tfFinalGrade.setText("1.50");
            tfRemarks.setText("PASSED");
            tfAverage.setText(Double.toString(g));
        }
        else if (g >= 89 && g <= 91) {
            tfFinalGrade.setText("1.75");
            tfRemarks.setText("PASSED");
            tfAverage.setText(Double.toString(g));
        }
        else if (g >= 86 && g <= 88) {
            tfFinalGrade.setText("2.00");
            tfRemarks.setText("PASSED");
            tfAverage.setText(Double.toString(g));
        }
        else if (g >= 83 && g <= 85) {
            tfFinalGrade.setText("2.25");
            tfRemarks.setText("PASSED");
            tfAverage.setText(Double.toString(g));
        }
        else if (g >= 80 && g <= 82) {
            tfFinalGrade.setText("2.50");
            tfRemarks.setText("PASSED");
            tfAverage.setText(Double.toString(g));
        }
    }
});

```

```

    }
    else if (g >= 77 && g <=79) {
        tfFinalGrade.setText("2.75");
        tfRemarks.setText("PASSED");
        tfAverage.setText(Double.toString(g));
    }
    else if (g >= 75 && g <=76) {
        tfFinalGrade.setText("3.00");
        tfRemarks.setText("PASSED");
        tfAverage.setText(Double.toString(g));
    }
    else if (g <= 74) {
        tfFinalGrade.setText("5.00");
        tfRemarks.setText("FAILED");
        tfAverage.setText(Double.toString(g));
    }
    else if (g >= 100) {
        tfFinalGrade.setText("Invalid Input");
        tfRemarks.setText("Invalid Input");
        tfAverage.setText("Invalid Input");
    }
}

});
enter.setForeground(Color.BLACK);
enter.setFont(new Font("Georgia", Font.PLAIN, 12));
enter.setBorder(new SoftBevelBorder(BevelBorder.LOWERED, new Color(255, 255, 0),
null, Color.YELLOW, null));
enter.setBounds(74, 169, 70, 23);
frame.getContentPane().add(enter);

clear = new JButton("Clear");
clear.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent arg0) {
        tfFinalGrade.setText("");
        tfAverage.setText("");
        tfRemarks.setText("");
        firstGrade.setText("");
        secondGrade.setText("");
        thirdGrade.setText("");
        fourthGrade.setText("");
    }
});
clear.setForeground(Color.BLACK);
clear.setFont(new Font("Georgia", Font.PLAIN, 12));
clear.setBorder(new SoftBevelBorder(BevelBorder.LOWERED, new Color(255, 255, 0),
null, Color.YELLOW, null));
clear.setBounds(160, 169, 70, 23);
frame.getContentPane().add(clear);

exit = new JButton("Exit");
exit.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent arg0) {
        int confirm = JOptionPane.showConfirmDialog(null, "Do you want to exit?",
"Confirm", JOptionPane.YES_NO_OPTION, JOptionPane.QUESTION_MESSAGE);
        if (confirm == JOptionPane.YES_OPTION) {
            frame.dispose();
        }
        else {
            tfFinalGrade.setText("");
            tfAverage.setText("");
            firstGrade.setText("");

```

```

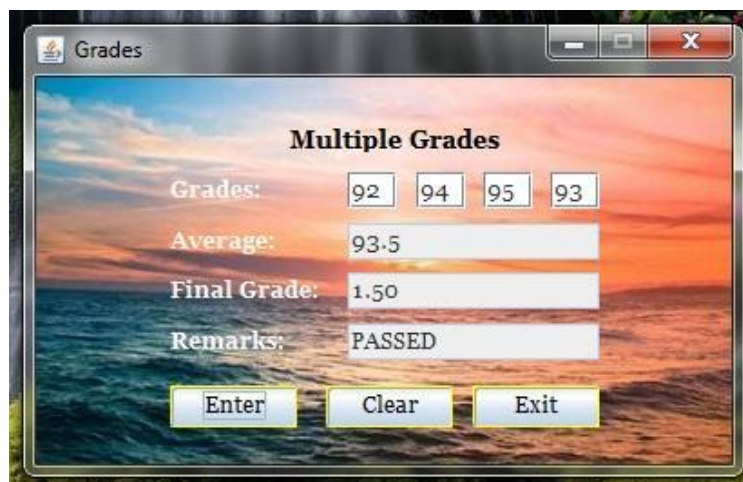
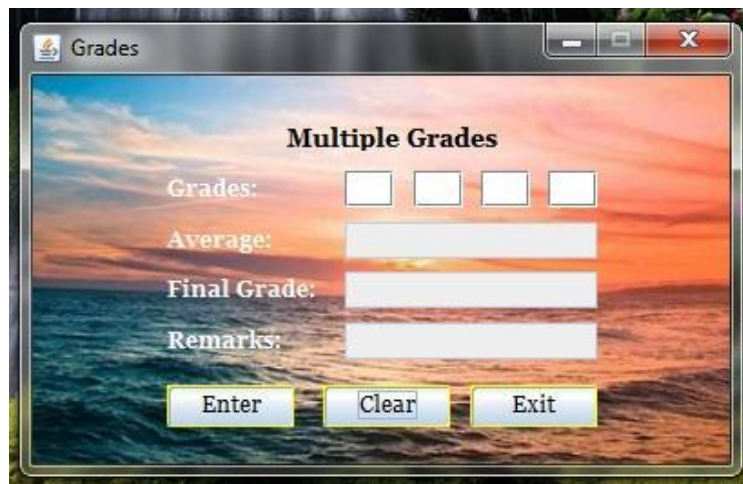
        secondGrade.setText("");
        thirdGrade.setText("");
        fourthGrade.setText("");
        tfRemarks.setText("");
    }
}

});
exit.setForeground(Color.BLACK);
exit.setFont(new Font("Georgia", Font.PLAIN, 12));
exit.setBorder(new SoftBevelBorder(BevelBorder.LOWERED, new Color(255, 255, 0), null,
Color.YELLOW, null));
exit.setBounds(241, 169, 70, 23);
frame.getContentPane().add(exit);

grades_bg = new JLabel("");
grades_bg.setBounds(-3, -3, 397, 225);
grades_bg.setBackground(Color.BLACK);
imageGrades = new
ImageIcon(getClass().getClassLoader().getResource("grades_bg.jpg"));
grades_bg.setIcon(imageGrades);
frame.getContentPane().add(grades_bg);

frame.setVisible(true);
}
}

```



Grades

Multiple Grades

Grades:

Average:

Final Grade:

Remarks:

Grades

Multiple Grades

Grades:

Average:

Final Grade:

Remarks:

Grades

Multiple Grades

Grades:

Average:

Final Grade:

Remarks:

Confirm

DiceGame.java

```
package Window;

import java.awt.*;
import java.awt.event.*;
import java.util.Random;
import javax.swing.*;
import javax.swing.border.*;

public class DiceGame extends
JFrame{

    private static final long
serialVersionUID = 1L;

    private JFrame frame2;
    private JLabel welcome,
youHave, lblPressStartTo;
    private JButton start;
    private Random a = new Random();
    private int numTries = 10;
    private int computerDice;
    private int computerScore = 0;
    private int userScore = 0;
    private int ans;
    private JLabel lblNewLabel;
    private ImageIcon imageDice;

    public static void main(String[] args) {
        EventQueue.invokeLater(new Runnable() {
            public void run() {
                try {
                    DiceGame window = new DiceGame();
                    window.frame2.setVisible(true);
                } catch (Exception e) {
                    e.printStackTrace();
                }
            }
        });
    }

    public DiceGame() {
        initialize();
    }

    private void initialize() {
        frame2 = new JFrame("Dice Game");//Sets title of frame
        frame2.setFont(new Font("Georgia", Font.PLAIN, 12));
        frame2.setForeground(Color.BLACK);
        frame2.setLocationRelativeTo(null);//Center the frame
        frame2.getContentPane().setFont(new Font("Georgia", Font.PLAIN, 11));
        frame2.setDefaultCloseOperation(JFrame.DISPOSE_ON_CLOSE);
        frame2.setResizable(false);//Prevent frame from being resize
        frame2.setSize(289, 187);
        frame2.setIconImage(Toolkit.getDefaultToolkit().getImage("dice.jpg"));
        ImageIcon icon = new ImageIcon("dice.jpg");//Create an ImageIcon
        frame2.setIconImage(icon.getImage());//Change icon of frame
        frame2.getContentPane().setBackground(new Color(222, 184, 135));
        frame2.getContentPane().setLayout(null);

        welcome = new JLabel("WELCOME TO SIMPLE DICE GAME!");
```




```

welcome.setBounds(10, 37, 263, 14);
welcome.setHorizontalAlignment(SwingConstants.CENTER);
welcome.setForeground(Color.WHITE);
welcome.setFont(new Font("Georgia", Font.BOLD, 12));
frame2.getContentPane().add(welcome);

youHave = new JLabel("You have 10 tries to guess the dice");
youHave.setBounds(10, 62, 263, 14);
youHave.setHorizontalAlignment(SwingConstants.CENTER);
youHave.setForeground(Color.BLUE);
youHave.setFont(new Font("Georgia", Font.PLAIN, 12));
frame2.getContentPane().add(youHave);

start = new JButton("START");
start.setFont(new Font("Georgia", Font.PLAIN, 12));
start.setBorder(new SoftBevelBorder(BevelBorder.LOWERED, new Color(255, 255,
0), null, Color.YELLOW, null));;
start.setBounds(96, 105, 89, 23);
start.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent arg0) {
        do {
            for(int i = 1; i <= numTries; i++) {
                String str = JOptionPane.showInputDialog("Guess No."
+ i + " | Enter a guess 1-6:");

                int user = Integer.parseInt(str);
                computerDice = a.nextInt(6) + 1;
                JOptionPane.showMessageDialog(null, "Rolling
die...");

                if(computerDice > user || computerDice < user) {
                    if (computerDice == 1) {
                        JOptionPane.showMessageDialog(null, "
_____ \n
|")";

                        computerScore = computerDice + 1;

JOptionPane.showMessageDialog(null, "Wrong! The dice is " + computerDice);
                    }
                    else if (computerDice == 2) {
                        JOptionPane.showMessageDialog(null, "
_____ \n
• |")";

                        computerScore = computerDice + 1;

JOptionPane.showMessageDialog(null, "Wrong! The dice is " + computerDice);
                    }
                    else if (computerDice == 3) {
                        JOptionPane.showMessageDialog(null, "
_____ \n
• |")";

                        computerScore = computerDice + 1;

JOptionPane.showMessageDialog(null, "Wrong! The dice is " + computerDice);
                    }
                    else if (computerDice == 4) {
                        JOptionPane.showMessageDialog(null, "
_____ \n
• • |")";

                        computerScore = computerDice + 1;

JOptionPane.showMessageDialog(null, "Wrong! The dice is " + computerDice);
                    }
                }
            }
        }
    }
}

```

```

else if (computerDice == 5) {
    JOptionPane.showMessageDialog(null, "
    _____ \n
    • |")";

    computerScore = computerDice + 1;

    JOptionPane.showMessageDialog(null, "Wrong! The dice is " + computerDice);
}
else if (computerDice == 6) {
    JOptionPane.showMessageDialog(null, "
    _____ \n
    • |")";

    computerScore = computerDice + 1;

    JOptionPane.showMessageDialog(null, "Wrong! The dice is " + computerDice);
}
else if (user == computerDice) {
    if (computerDice == 1 || user == 1) {
        JOptionPane.showMessageDialog(null, "
        _____ \n
        |")";

        userScore = userScore + 1;

        JOptionPane.showMessageDialog(null, "Correct! You got a point ");
    }
    if (computerDice == 2 || user == 2) {
        JOptionPane.showMessageDialog(null, "
        _____ \n
        • |")";

        userScore = userScore + 1;

        JOptionPane.showMessageDialog(null, "Correct! You got a point ");
    }
    if (computerDice == 3 || user == 3) {
        JOptionPane.showMessageDialog(null, "
        _____ \n
        • |")";

        userScore = userScore + 1;

        JOptionPane.showMessageDialog(null, "Correct! You got a point ");
    }
    if (computerDice == 4 || user == 4) {
        JOptionPane.showMessageDialog(null, "
        _____ \n
        • |")";

        userScore = userScore + 1;

        JOptionPane.showMessageDialog(null, "Correct! You got a point ");
    }
    if (computerDice == 5 || user == 5) {
        JOptionPane.showMessageDialog(null, "
        _____ \n
        • |")";

        userScore = userScore + 1;

        JOptionPane.showMessageDialog(null, "Correct! You got a point ");
    }
    if (computerDice == 6 || user == 6) {

```

```

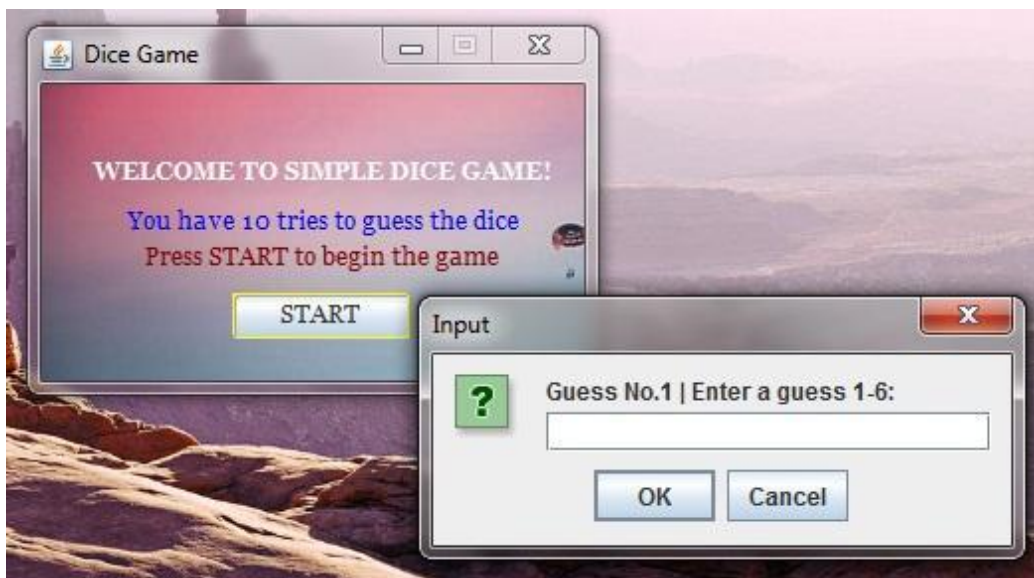
JOptionPane.showMessageDialog(null,"
• |");
JOptionPane.showMessageDialog(null,"Correct! You got a point ");
}
}
JOptionPane.showMessageDialog(null,"You got " + userScore
+ " out of " + numTries + " trials!");
if (userScore > computerScore) {
    JOptionPane.showMessageDialog(null,"Great job!");
}
else if (computerScore > userScore) {
    JOptionPane.showMessageDialog(null,"Sorry better
luck next time!");
}
ans=JOptionPane.showConfirmDialog(null,"Do you want to
continue?", "Confirm", JOptionPane.YES_NO_OPTION, JOptionPane.QUESTION_MESSAGE);
}
while(ans==JOptionPane.YES_OPTION);
}
});
frame2.getContentPane().add(start);

lblPressStartTo = new JLabel("Press START to begin the game");
lblPressStartTo.setBounds(10, 80, 263, 14);
lblPressStartTo.setHorizontalAlignment(SwingConstants.CENTER);
lblPressStartTo.setForeground(new Color(128, 0, 0));
lblPressStartTo.setFont(new Font("Georgia", Font.PLAIN, 12));
frame2.getContentPane().add(lblPressStartTo);

lblNewLabel = new JLabel("");
imageDice = new
ImageIcon(getClass().getClassLoader().getResource("dice_bg.jpg"));
lblNewLabel.setIcon(imageDice);
lblNewLabel.setBounds(0, 0, 283, 159);
frame2.getContentPane().add(lblNewLabel);

frame2.setVisible(true);
}
}

```



Members.java

```
package Window;

import javax.swing.*.*;
import java.awt.*.*;

public class Members
extends JFrame{

    private static
    final long
    serialVersionUID = 1L;

    private JFrame
    frame;
    private JLabel
    boa;
    private JLabel
    roseann;
    private JLabel section;
    private JLabel bDay;
    private JLabel age;
    private ImageIcon imageBoa;

    public static void main(String[] args) {
        EventQueue.invokeLater(new Runnable() {
            public void run() {
                try {
                    Members window2 = new Members();
                    window2.frame.setVisible(true);
                } catch (Exception e) {
                    e.printStackTrace();
                }
            }
        });
    }

    public Members() {
        initialize();
    }

    private void initialize() {
        frame = new JFrame();
        frame.setBounds(100, 100, 300, 176);
        frame.setDefaultCloseOperation(JFrame.DISPOSE_ON_CLOSE);
        frame.setTitle("Team R-Jey - Boa");
        frame.setIconImage(Toolkit.getDefaultToolkit().getImage("group.png"));
        frame.setResizable(false);
        frame.getContentPane().setBackground(new Color(222, 184, 135));
        frame.getContentPane().setLayout(null);

        boa = new JLabel("");
        boa.setForeground(SystemColor.desktop);
        imageBoa = new ImageIcon(getClass().getClassLoader().getResource("boa1.jpg"));
        boa.setIcon(imageBoa);
        boa.setBounds(9, 31, 106, 90);
        frame.getContentPane().add(boa);

        roseann = new JLabel("Balboa, Mary Rose Ann G.");
        roseann.setForeground(SystemColor.desktop);
```



```

roseann.setFont(new Font("Georgia", Font.PLAIN, 12));
roseann.setVerticalAlignment(SwingConstants.CENTER);
roseann.setHorizontalAlignment(SwingConstants.LEFT);
roseann.setBounds(125, 38, 167, 14);
frame.getContentPane().add(roseann);

section = new JLabel("BSIT 2-4");
section.setForeground(SystemColor.desktop);
section.setFont(new Font("Georgia", Font.PLAIN, 12));
section.setHorizontalAlignment(SwingConstants.LEFT);
section.setBounds(125, 57, 72, 14);
frame.getContentPane().add(section);

bDay = new JLabel("August 1, 2000");
bDay.setHorizontalAlignment(SwingConstants.LEFT);
bDay.setForeground(Color.BLACK);
bDay.setFont(new Font("Georgia", Font.PLAIN, 12));
bDay.setBounds(125, 76, 99, 14);
frame.getContentPane().add(bDay);

age = new JLabel("20 years old");
age.setHorizontalAlignment(SwingConstants.LEFT);
age.setForeground(Color.BLACK);
age.setFont(new Font("Georgia", Font.PLAIN, 12));
age.setBounds(125, 95, 99, 14);
frame.getContentPane().add(age);

frame.setVisible(true);
}
}

```



Members2.java

```
package Window;

import javax.swing.*.*;
import java.awt.*.*;

public class Members2 extends JFrame{

    private static final long
serialVersionUID = 1L;

    private JFrame
frmTeamRjey;
    private JLabel jay;
    private JLabel enriquez;
    private JLabel section;
    private JLabel bDay;
    private JLabel age;
    private ImageIcon imageJay;

    public static void main(String[] args) {
        EventQueue.invokeLater(new Runnable() {
            public void run() {
                try {
                    Members2 windowtwo = new Members2();
                    windowtwo.frmTeamRjey.setVisible(true);
                } catch (Exception e) {
                    e.printStackTrace();
                }
            }
        });
    }

    public Members2() {
        initialize();
    }

    private void initialize() {
        frmTeamRjey = new JFrame();
        frmTeamRjey.setBounds(100, 100, 300, 176);
        frmTeamRjey.setDefaultCloseOperation(JFrame.DISPOSE_ON_CLOSE);
        frmTeamRjey.setTitle("Team R-Jey - Jay");
        frmTeamRjey.setIconImage(Toolkit.getDefaultToolkit().getImage("team.jpg"));
        frmTeamRjey.setResizable(false);
        frmTeamRjey.getContentPane().setBackground(SystemColor.activeCaption);
        frmTeamRjey.getContentPane().setLayout(null);

        jay = new JLabel("");
        jay.setForeground(SystemColor.desktop);
        imageJay = new ImageIcon(getClass().getClassLoader().getResource("jayyy.jpg"));
        jay.setIcon(imageJay);
        jay.setBounds(24, 31, 106, 90);
        frmTeamRjey.getContentPane().add(jay);

        enriquez = new JLabel("Enriquez, Jay Vincent S.");
        enriquez.setForeground(SystemColor.desktop);
        enriquez.setFont(new Font("Georgia", Font.PLAIN, 12));
        enriquez.setVerticalAlignment(SwingConstants.CENTER);
        enriquez.setHorizontalAlignment(SwingConstants.LEFT);
```



```

enriquez.setBounds(140, 38, 144, 14);
frmTeamRjey.getContentPane().add(enriquez);

section = new JLabel("BSIT 2-4");
section.setForeground(SystemColor.desktop);
section.setFont(new Font("Georgia", Font.PLAIN, 12));
section.setHorizontalAlignment(SwingConstants.LEFT);
section.setBounds(140, 57, 72, 14);
frmTeamRjey.getContentPane().add(section);

bDay = new JLabel("August 14, 2001");
bDay.setHorizontalAlignment(SwingConstants.LEFT);
bDay.setForeground(Color.BLACK);
bDay.setFont(new Font("Georgia", Font.PLAIN, 12));
bDay.setBounds(140, 76, 99, 14);
frmTeamRjey.getContentPane().add(bDay);

age = new JLabel("19 years old");
age.setHorizontalAlignment(SwingConstants.LEFT);
age.setForeground(Color.BLACK);
age.setFont(new Font("Georgia", Font.PLAIN, 12));
age.setBounds(140, 95, 99, 14);
frmTeamRjey.getContentPane().add(age);

frmTeamRjey.setVisible(true);
}
}

```



Members3.java

```
package Window;

import javax.swing.*.*;
import java.awt.*.*;

public class Members3 extends
JFrame{

    private static final long
serialVersionUID = 1L;
    private JFrame frmTeamRjey;
    private JLabel jez, robis,
section, bDay, age;
    private ImageIcon imageJez;

    public static void
main(String[] args) {
        EventQueue.invokeLater(new Runnable() {
            public void run() {
                try {
                    Members3 window3 = new Members3();
                    window3.frmTeamRjey.setVisible(true);
                } catch (Exception e) {
                    e.printStackTrace();
                }
            }
        });
    }

    public Members3() {
        initialize();
    }

    private void initialize() {
        frmTeamRjey = new JFrame();
        frmTeamRjey.setBounds(100, 100, 300, 176);
        frmTeamRjey.setDefaultCloseOperation(JFrame.DISPOSE_ON_CLOSE);
        frmTeamRjey.setTitle("Team R-Jey - Jez");
        frmTeamRjey.setIconImage(Toolkit.getDefaultToolkit().getImage("team.jpg"));
        frmTeamRjey.setResizable(false);
        frmTeamRjey.getContentPane().setBackground(new Color(222, 184, 135));
        frmTeamRjey.getContentPane().setLayout(null);

        jez = new JLabel("");
        jez.setForeground(SystemColor.desktop);
        imageJez = new ImageIcon(getClass().getClassLoader().getResource("jez1.jpg"));
        jez.setIcon(imageJez);
        jez.setBounds(37, 25, 106, 90);
        frmTeamRjey.getContentPane().add(jez);

        robis = new JLabel("Robis, Jezryl Mae P.");
        robis.setForeground(SystemColor.desktop);
        robis.setFont(new Font("Georgia", Font.PLAIN, 12));
        robis.setVerticalAlignment(SwingConstants.CENTER);
        robis.setHorizontalAlignment(SwingConstants.LEFT);
        robis.setBounds(153, 37, 131, 14);
        frmTeamRjey.getContentPane().add(robis);

        section = new JLabel("BSIT 2-4");
```



```

section.setForeground(SystemColor.desktop);
section.setFont(new Font("Georgia", Font.PLAIN, 12));
section.setHorizontalAlignment(SwingConstants.LEFT);
section.setBounds(153, 56, 72, 14);
frmTeamRjey.getContentPane().add(section);

bDay = new JLabel("June 10, 2001");
bDay.setHorizontalAlignment(SwingConstants.LEFT);
bDay.setForeground(Color.BLACK);
bDay.setFont(new Font("Georgia", Font.PLAIN, 12));
bDay.setBounds(153, 75, 99, 14);
frmTeamRjey.getContentPane().add(bDay);

age = new JLabel("19 years old");
age.setHorizontalAlignment(SwingConstants.LEFT);
age.setForeground(Color.BLACK);
age.setFont(new Font("Georgia", Font.PLAIN, 12));
age.setBounds(153, 94, 99, 14);
frmTeamRjey.getContentPane().add(age);

frmTeamRjey.setVisible(true);
}
}

```



FINAL OUTPUTS:

