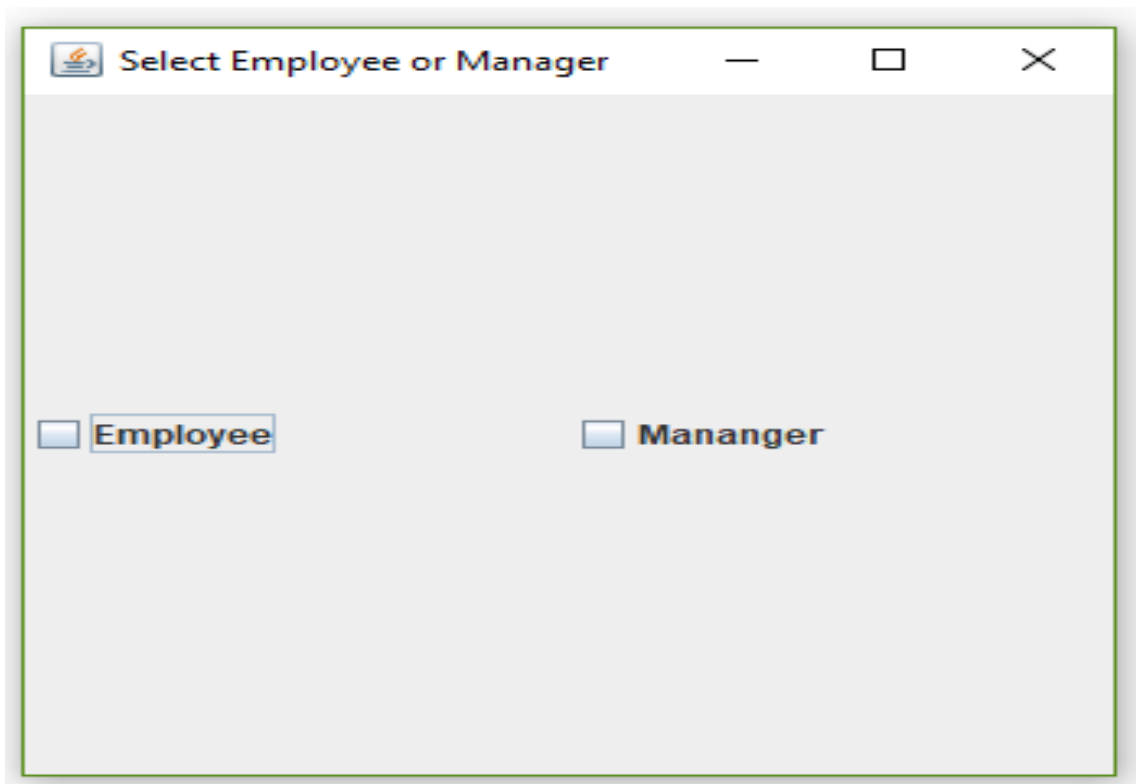
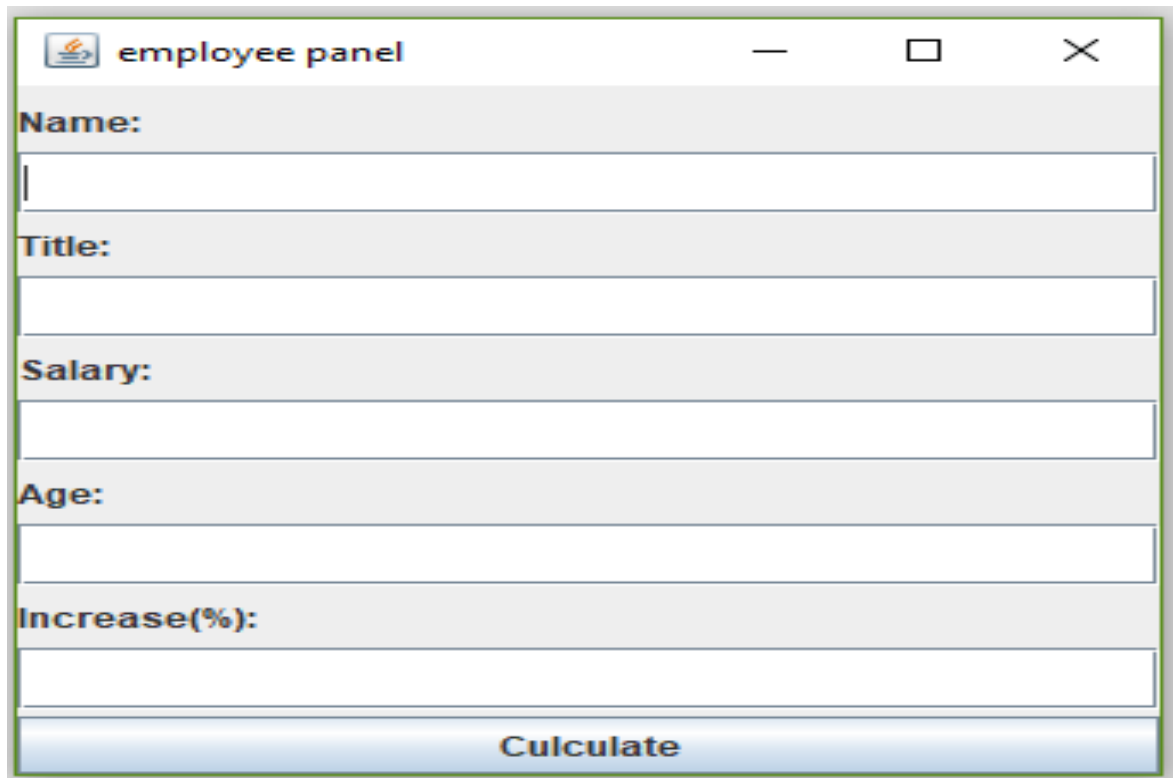


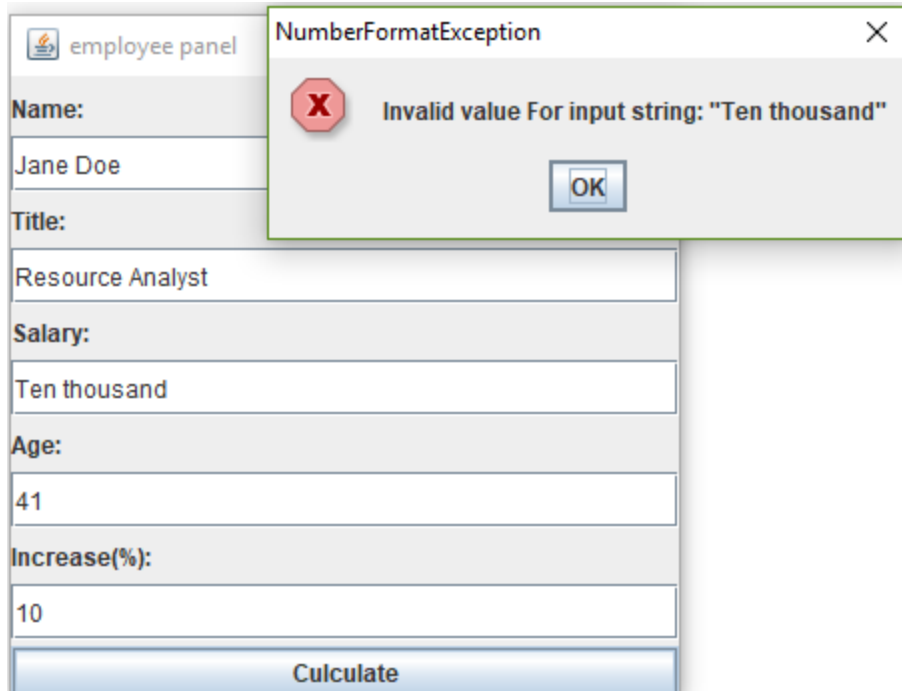
Homework#2**Name: Sharath Sudin****ID: 999900620****Tutor: Justin L. Rice****MCIS 5103: Advanced Programming****Solution 1**

Above is the screen that pops up when the program is executed, it allows the user to choose between the employee panel and the manager's panel. When either of the two JCheckBoxes is checked, a corresponding window pops to allow the user to input required information to calculate the salary raise for either the employee or the manager depending on the selected checkbox.

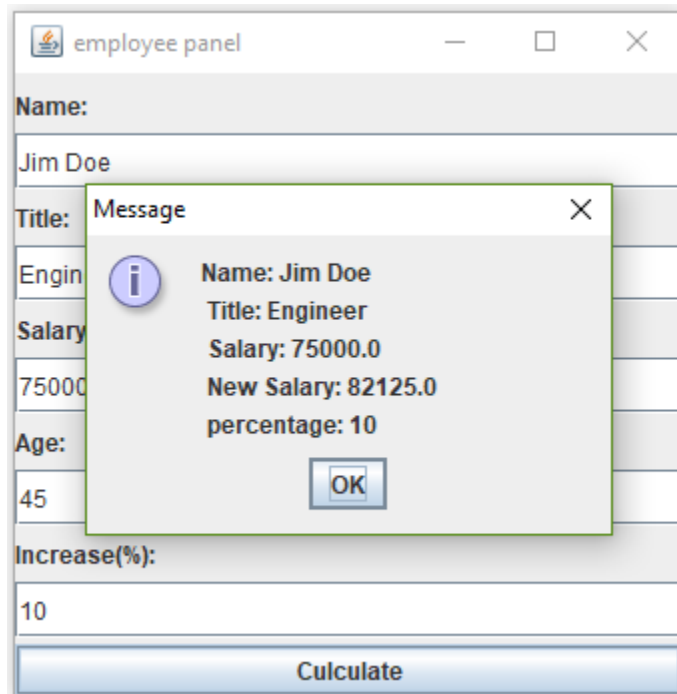
Solution 2/4.

The image shows a Java Swing window titled "employee panel". The window contains five text input fields, each preceded by a label: "Name:", "Title:", "Salary:", "Age:", and "Increase(%):". At the bottom of the window is a button labeled "Calculate". The window has a standard title bar with a minimize button, a maximize button, and a close button.

When the employee JCheckbox is selected the above window pops for employee information collection which is processed to calculate and output the employee's salary raise when the calculate button is clicked.

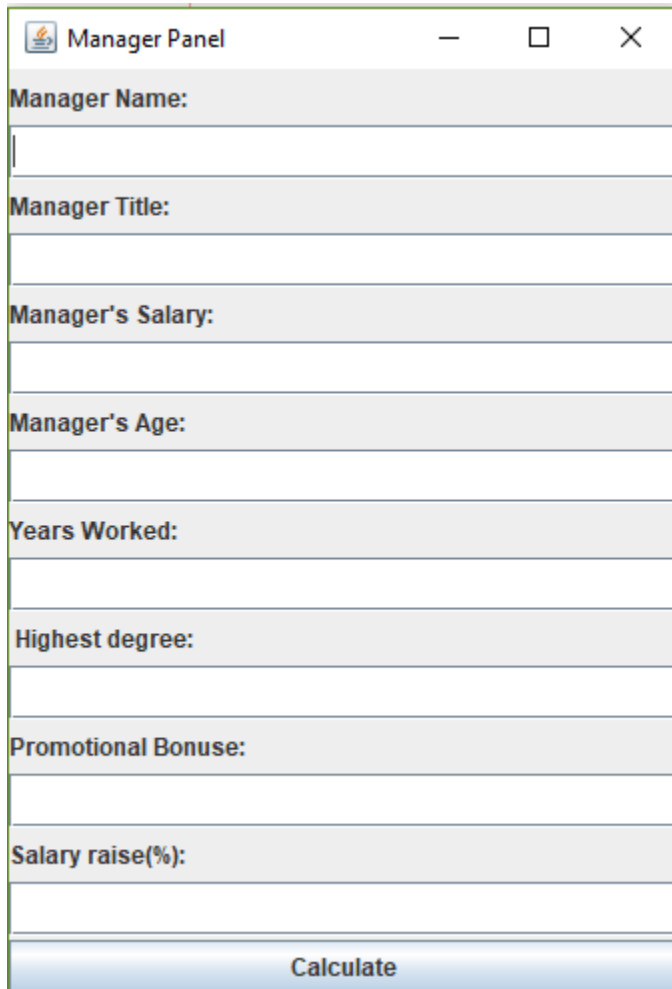


The screen capture above shows GUI output for an error resulting from invalid salary value.



When the calculate button is clicked the above output pops up showing the employee details as well the salary raise after a 10% increment on their salary.

Solution 3/5



The image shows a Java Swing window titled "Manager Panel". The window has a light blue header bar with the title and standard window controls (minimize, maximize, close). Below the header, there are nine text input fields, each preceded by a label: "Manager Name:", "Manager Title:", "Manager's Salary:", "Manager's Age:", "Years Worked:", "Highest degree:", "Promotional Bonuse:", and "Salary raise(%):". The last field is empty. At the bottom of the window is a blue button labeled "Calculate".

The above panel appears when the manager JCheckbox is selected from the home screen. It allows the user to key in the necessary information about a given manager.

Manager's Salary:

Manager's Age:

Years Worked:

Highest degree:

Promotional Bonus:

Empty fields erro

All text Fields must be filled in

OK

Above is a screen captures of errors resulting from submission of empty JTextfields.

Manager Panel

Manager Name:

John Doe

Manager Title:

Department Head

Manager's Salary:

100000

Manager's Age:

54

Years Worked:

31

Highest degree:

PhD

Promotional Bonus:

5000

Salary raise(%):

10

Calculate

Message

Name: John Doe
Title: Department Head
Age: 54
Highest Degree: PhD
Salary: 100000.0
Years worked: 31
Promotion Bonus: 5000.0
Percent raise(%): 10
New Salary: 114500.0

OK

On submitting the manager's information the above message box pops up summarizing the manager's information alongside the manager's new salary after a 10% rise is applied to his/her initial salary.

Appendix

Source code

Employee/Manager selection class

```
import java.awt.BorderLayout;

import java.awt.GridLayout;

import javax.swing.JCheckBox;

import javax.swing.JFrame;

import javax.swing.JPanel;

/**
 *
 * @author Sudin
 */

public class emp_mng_select extends JFrame{

    //initialize check boxes employee and manager

    private JCheckBox employee, manager;

    private JPanel panel;

    //create a constructor for class emp_mng_select

    public emp_mng_select(){

        //set Title location on screen and layout

        this.setTitle("Select Employee or Manager");

        this.setLocationRelativeTo(null);
```

```
        this.setLayout(new BorderLayout());

panel= new JPanel(new GridLayout(1, 2));

// panel.setLayout();

employee= new JCheckBox("Employee");

manager= new JCheckBox("Mananger");

panel.add(employee);

panel.add(manager);

employee.addActionListener(e -> {

    if (employee.isSelected()) {

        employee emp = new employee();

        emp.show();

        this.hide();

    }

});

manager.addActionListener(e -> {

    if(manager.isSelected()){

        manager mng = new manager();

        mng.show();

        this.hide();

    }

});
```



```
    });  
  
    this.add(panel, BorderLayout.CENTER);  
  
    }  
  
    public static void main(String[] args) {  
  
        emp_mng_select frame= new emp_mng_select();  
  
        frame.setSize(350, 350);  
  
        frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);  
  
        frame.setVisible(true);  
  
    }  
  
}
```

Employee class

```
/*  
  
* To change this license header, choose License Headers in Project Properties.  
  
* To change this template file, choose Tools | Templates  
  
* and open the template in the editor.  
  
*/  
  
package homework2;  
  
  
import java.awt.BorderLayout;  
import java.awt.GridLayout;  
import javax.swing.JButton;  
import javax.swing.JFrame;  
import javax.swing.JLabel;  
import javax.swing.JOptionPane;  
import javax.swing.JPanel;  
import javax.swing.JTextField;  
  
  
/**  
  
*  
  
* @author Sudin  
  
*/  
  
public class employee extends JFrame{  
  
private final JLabel nameLabel,titleLabel,salaryLabel,ageLabel,increaseLabel;
```

```
private final JTextField name,title,salary,age,increase;  
  
private String myName,myTitle;  
  
protected double mySalary;  
  
private int raise,myAge;  
  
JButton calculate;  
  
JPanel panel;
```

```
public employee(){  
  
    this.setTitle("employee panel");  
  
    this.setLayout(new BorderLayout());  
  
    ////  
  
    panel= new JPanel();  
  
    panel.setLayout(new GridLayout(10,1));  
  
  
    ///  
  
    nameLabel= new JLabel("Name:");  
  
    name= new JTextField();  
  
    panel.add(nameLabel);  
  
    panel.add(name);  
  
  
  
    titleLabel= new JLabel("Title:");  
  
    title= new JTextField();  
  
    panel.add(titleLabel);
```

```
panel.add(title);
```

```
salaryLabel = new JLabel("Salary:");
```

```
salary = new JTextField();
```

```
panel.add(salaryLabel);
```

```
panel.add(salary);
```

```
ageLabel= new JLabel("Age:");
```

```
age = new JTextField();
```

```
panel.add(ageLabel);
```

```
panel.add(age);
```

```
increaseLabel = new JLabel("Increase(%):");
```

```
increase= new JTextField();
```

```
panel.add(increaseLabel);
```

```
panel.add(increase);
```

```
calculate= new JButton("Culculate");
```

```
calculate.addActionListener(e -> {
```

```
myName = name.getText();
```

```
myTitle=title.getText();
```

```
    if (myName.equals("") || myTitle.equals("") ||
```

```
salary.getText().equals("")||age.getText().equals("")||increase.getText().equals("")
```

```
||title.getText().equals("")) {
```

```

        JOptionPane.showMessageDialog(this, "All textFields Must be filled in
", "empty fields input", JOptionPane.WARNING_MESSAGE);

        return;

    }

    try {

        mySalary=Integer.parseInt(salary.getText());

        myAge= Integer.parseInt(age.getText());

        raise=Integer.parseInt(increase.getText());

        myTitle=title.getText();

        JOptionPane.showMessageDialog(this, "Name: "+ myName+"\n Title:
"+myTitle+" \n Salary: "+ mySalary+"\n New Salary: "+raiseSalary(raise)+"\n
percentage: " +raise);

    } catch (NumberFormatException ec) {

        JOptionPane.showMessageDialog(this, "Invalid value "+ec.getMessage(),
"NumberFormatException", JOptionPane.ERROR_MESSAGE);

    }

});

this.add(panel, BorderLayout.CENTER);

this.add(calculate, BorderLayout.SOUTH);

/////

this.setSize(350, 350);

```

```
        this.setLocationRelativeTo(null);

        this.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
    }

    public double raiseSalary(int percent) {

        mySalary = mySalary + 0.95 * percent * 0.01 * mySalary;

        return mySalary;
    }
}
```

Manager class

```
/*  
  
 * To change this license header, choose License Headers in Project Properties.  
  
 * To change this template file, choose Tools | Templates  
  
 * and open the template in the editor.  
  
 */  
  
package homework2;  
  
  
import java.awt.BorderLayout;  
import java.awt.GridLayout;  
import javax.swing.JButton;  
import javax.swing.JFrame;  
import javax.swing.JLabel;  
import javax.swing.JOptionPane;  
import javax.swing.JPanel;  
import javax.swing.JTextField;  
  
/**  
  
 *  
  
 * @author Sudin  
  
 */  
  
public class manager extends JFrame{
```

```

    private final JLabel nameLabel, titleLabel, salaryLabel,
ageLabel, yearsWorkedLabel, highestDegreeLabel, promotionBonusLabel,
salaryRaiseLabel;

    private final JTextField name, title, salary, age, yearsWorked, highestDegree,
promotionBonus, salaryRaise;

    JPanel panel;

    JButton calculate;

    private int myearsWorked, mage, msalaryRaise;

    private double mpromotionBonus, msalary, Tsalary;

    public manager(){

        setTitle("Manager Panel");

        setSize(350, 500);

        setLayout(new BorderLayout());

        setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);

        setLocationRelativeTo(null);

        //////////

        panel = new JPanel(new GridLayout(16, 1));

        //////////

        nameLabel= new JLabel("Manager Name:");

        name=new JTextField();

        panel.add(nameLabel);

        panel.add(name);

```



```
titleLabel= new JLabel("Manager Title:");
```

```
title=new JTextField();
```

```
panel.add(titleLabel);
```

```
panel.add(title);
```

```
salaryLabel= new JLabel("Manager's Salary:");
```

```
salary=new JTextField();
```

```
panel.add(salaryLabel);
```

```
panel.add(salary);
```

```
ageLabel= new JLabel("Manager's Age:");
```

```
age=new JTextField();
```

```
panel.add(ageLabel);
```

```
panel.add(age);
```

```
yearsWorkedlabel= new JLabel("Years Worked:");
```

```
yearsWorked=new JTextField();
```

```
panel.add(yearsWorkedlabel);
```

```
panel.add(yearsWorked);
```

```
highestDegreeLabel= new JLabel(" Highest degree:");
```

```
highestDegree=new JTextField();
```

```
panel.add(highestDegreeLabel);
```

```
panel.add(highestDegree);
```

```
promotionBonusLabel= new JLabel("Promotional Bonuse:");
```

```
promotionBonus=new JTextField();
```

```
panel.add(promotionBonusLabel);
```

```
panel.add(promotionBonus);
```

```
salaryRaiseLabel= new JLabel("Salary raise(%):");
```

```
salaryRaise=new JTextField();
```

```
panel.add(salaryRaiseLabel);
```

```
panel.add(salaryRaise);
```

```
calculate = new JButton("Calculate");
```

```
calculate.addActionListener(e->{
```

```
    if (name.getText().equals("")||
```

```
    title.getText().equals("")||salary.getText().equals("")||age.getText().equals("")||yearsW
```

```
    orked.getText().equals("")||highestDegree.getText().equals("")||promotionBonus.getT
```

```
    ext().equals("")||salaryRaise.getText().equals("")) {
```

```
        JOptionPane.showMessageDialog(this, "All text Fields must be filled in ",
```

```
        "Empty fields erro", JOptionPane.WARNING_MESSAGE);
```

```
        return;
```

```

    }else{

        try{

            msalaryRaise=Integer.parseInt(salaryRaise.getText());

            msalary=Double.parseDouble(salary.getText());

            mage=Integer.parseInt(age.getText());

            mpromotionBonus=Double.parseDouble(promotionBonus.getText());

            myearsWorked=Integer.parseInt(yearsWorked.getText());


            JOptionPane.showMessageDialog(this,"Name:\t "+ name.getText()+"\n
Title: \t"+title.getText()+"\n Age:\t "+mage+"\n Highest Degree:
\t"+highestDegree.getText()+"\n Salary:\t "+ msalary+"\n Years worked:
\t"+myearsWorked+

            "\nPromotion Bonus:\t "+mpromotionBonus+ "\n Percent raise(%):
\t"+ msalaryRaise+"\n New Salary: \t" + raiseSalary(msalaryRaise));


        } catch (NumberFormatException es) {

            JOptionPane.showMessageDialog(this, "Invalid Value
"+es.getMessage(), " NumberFormatException", JOptionPane.ERROR_MESSAGE);

            return;

        }

    }
}

```

```
});  
  
add(panel, BorderLayout.CENTER);  
  
add(calculate, BorderLayout.SOUTH);  
  
setVisible(true);  
}  
  
public double raiseSalary(int percent) {  
  
    Tsalary = msalary + 0.95 * msalaryRaise * 0.01 * msalary + mpromotionBonus;  
    return Tsalary;  
}  
}
```