**TASK 1**

A Rotary Club is organizing fund raiser selling take-away lunch sets. Price for an adult lunch set is $20 and price for kids set is $12. Customers can buy more than one adult set and kid set. Side orders can be added on at a separate price which includes $4 for salad and $5 for dessert. Higher marks will be given for program created using JOptionPane.

Flowchart For Task 1 (page 2)

Diagram

Description automatically generated

Code For Task 1

//self-learned : try-catch block, custom dialog box title name, add icon to dialog box, change background colour of dialog box

**import** javax.swing.ImageIcon;

**import** javax.swing.JOptionPane;

**import** javax.swing.UIManager;

**import** javax.swing.plaf.ColorUIResource;

**public** **class** A1\_Task1 {

**public** **static** **void** main(String[] args){

//setting part start

//declare variable

**int** adult = 20, kid = 12, salad = 4, dessert = 5, total, num1, num2, num3, num4;

String a;

//setting icons

ImageIcon AMeal= **new** ImageIcon("src/AMeal.jpg"), KMeal= **new** ImageIcon("src/KMeal.png");

ImageIcon Salad= **new** ImageIcon("src/Salad.png"), Dessert= **new** ImageIcon("src/Dessert.png");

ImageIcon Menu= **new** ImageIcon("src/Menu.png"), menu2= **new** ImageIcon("src/menu2.png");

ImageIcon error= **new** ImageIcon("src/error.png"), nothing = **new** ImageIcon("src/nothing.png");

//change background colour of dialog box

UIManager.*put*("OptionPane.background",**new** ColorUIResource(239,222,205));

UIManager.*put*("Panel.background",**new** ColorUIResource(239,222,205));

//setting part end

//display menu

JOptionPane.*showMessageDialog*(**null**, "What we have: \nAdult Set [$20] \nKid Set [$12] \nSalads [$4] \nDessert [$5]", "Rotary Club Menu",JOptionPane.***INFORMATION\_MESSAGE***, menu2);

//input accepts integer only

//try-catch block start

**try** {

//for user to input in dialog box

//convert string to integer

num1 = Integer.*parseInt*((String)JOptionPane.*showInputDialog*(**null**, "How many adult lunch sets would you like?", "ORDER",JOptionPane.***QUESTION\_MESSAGE***, AMeal, **null**, " "));

num2 = Integer.*parseInt*((String)JOptionPane.*showInputDialog*(**null**, "How many kid lunch sets would you like?", "ORDER",JOptionPane.***QUESTION\_MESSAGE***, KMeal, **null**, " "));

num3 = Integer.*parseInt*((String)JOptionPane.*showInputDialog*(**null**, "How many salads would you like?", "SIDE ORDER",JOptionPane.***QUESTION\_MESSAGE***, Salad, **null**, " "));

num4 = Integer.*parseInt*((String)JOptionPane.*showInputDialog*(**null**, "How many desserts would you like?", "SIDE ORDER",JOptionPane.***QUESTION\_MESSAGE***, Dessert, **null**, " "));

//Nested if…else statement start

**if**(num1 == 0 && num2 == 0 && num3 == 0 && num4 == 0) {

JOptionPane.*showMessageDialog*(**null**,"Jeez","You bought nothing!",JOptionPane.***PLAIN\_MESSAGE***,nothing);

}

**else** **if**(num1 >= 0 && num2 >= 0 && num3 >= 0 && num4 >= 0) {

//calculate total price

total= adult\*num1 + kid\*num2 + salad\*num3 + dessert\*num4;

a= "Adult Set : " + num1 + "\nKid Set : " + num2 + "\nSalad : " + num3 + "\nDessert : " + num4 + "\nTotal = $" + total + "\nEnjoy your meal! \n\nThank you for participating \nin our fundraising event. ^^";

//display user's order

JOptionPane.*showMessageDialog*(**null**, a,"Receipt",JOptionPane.***PLAIN\_MESSAGE***, Menu);

}

**else** {

JOptionPane.*showMessageDialog*(**null**, "Seriously, why enter negative number?", "(눈\_눈)",JOptionPane.***ERROR\_MESSAGE***, error);

}

//Nested if…else statement end

}**catch**(NumberFormatException e) {

JOptionPane.*showMessageDialog*(**null**, "Please input a number.\nSpacing is not allowed.", "ERROR",JOptionPane.***ERROR\_MESSAGE***, error);

//informing user about error

}

//try-catch block end

}

}

**Outputs For Task 1**

1. **Normal:**

User enters number

Graphical user interface, application

Description automatically generatedGraphical user interface

Description automatically generatedGraphical user interface

Description automatically generatedGraphical user interface, application

Description automatically generatedGraphical user interface

Description automatically generatedGraphical user interface, application

Description automatically generatedGraphical user interface, application

Description automatically generatedGraphical user interface

Description automatically generated

Program ends

Program ends

If user don’t want dessert (same goes for salad, adult set and kid set)

1. **User Buy Nothing**

User enters 0 for all

**Graphical user interface, website

Description automatically generatedGraphical user interface, application

Description automatically generatedGraphical user interface, application

Description automatically generatedGraphical user interface, application

Description automatically generatedGraphical user interface

Description automatically generatedGraphical user interface

Description automatically generated**

Program ends

1. **Error 1 (user enters negative number):**

Graphical user interface

Description automatically generatedGraphical user interface, application

Description automatically generatedGraphical user interface

Description automatically generated

Graphical user interface, application

Description automatically generated

Graphical user interface, application

Description automatically generatedGraphical user interface, application

Description automatically generated

Enters -10

Program ends

1. **Error 2 (user enters alphabets or includes space):**

Graphical user interface, application

Description automatically generatedGraphical user interface, application

Description automatically generatedGraphical user interface

Description automatically generatedGraphical user interface, application

Description automatically generated

Program ends