**Assignment4**

**/\*\* Name: Essa Tahir**

**\* Assignment: Assignment2**

**\* Program: PROG24178**

**\***

**\* Making Pizza order program**

**\*/**

**package A4\_EssaTahir;**

**import java.text.DecimalFormat;**

**import javafx.event.ActionEvent;**

**import javafx.scene.Parent;**

**import javafx.scene.Scene;**

**import javafx.geometry.Insets;**

**import javafx.geometry.Pos;**

**import javafx.scene.Node;**

**import javafx.scene.layout.HBox;**

**import javafx.scene.input.KeyCodeCombination;**

**import javafx.scene.input.KeyCombination;**

**import javafx.scene.input.KeyCode;**

**import javafx.scene.layout.VBox;**

**import javafx.scene.layout.BorderPane;**

**import javafx.stage.Stage;**

**import javafx.scene.control.MenuItem;**

**import javafx.scene.control.Menu;**

**import javafx.scene.control.MenuBar;**

**import javafx.scene.control.Button;**

**import javafx.scene.control.TextArea;**

**import javafx.application.Application;**

**import javafx.scene.control.Label;**

**import javafx.scene.text.Font;**

**import javafx.scene.text.FontWeight;**

**/\*\***

**\***

**\* @author Essa OG**

**\*/**

**public class Pizzeria extends Application {**

**/\***

**\*This is the variable for the tax rate**

**\*/**

**private double taxrate;**

**/\***

**\*This is the variable for the textarea**

**\*/**

**private TextArea txaDisplay;**

**/\***

**\*This is the variable for Pizza class**

**\*/**

**private Pizza pizzas;**

**/\***

**\*This is the variable for toppings class**

**\*/**

**private Toppings toppings;**

**/\***

**\*This is the variable for drinks class**

**\*/**

**private Drinks drinks;**

**/\***

**\*This is the variable for btton ok and cancel**

**\*/**

**private Button btnOK;**

**private Button btnCancel;**

**/\***

**\*This is the variable for menubar and file menu**

**\*/**

**private MenuBar menuBar;**

**private Menu fileMenu;**

**private MenuItem exitItem;**

**/\***

**\*This is the variable for label**

**\*/**

**private Label lblText;**

**/\***

**\*The stage for the gui**

**\*/**

**@Override**

**public void start(Stage primaryStage) {**

**/\***

**\*using borderpane and vbox as the layout**

**\*/**

**BorderPane pane = new BorderPane();**

**VBox topPane = new VBox(5);**

**/\***

**\*This is to call the variable in the method**

**and naming them**

**\*/**

**this.menuBar = new MenuBar();**

**(this.fileMenu = new Menu("\_File")).setMnemonicParsing(true);**

**this.fileMenu.getStyleClass().add("menu-label");**

**this.exitItem = new MenuItem("E\_xit");**

**/\***

**\*adding the shortcut for the exiting gui**

**\*/**

**exitItem.setAccelerator(new KeyCodeCombination(KeyCode.T,**

**KeyCombination.SHORTCUT\_DOWN));**

**fileMenu.getItems().add(exitItem);**

**menuBar.getMenus().add(fileMenu);**

**exitItem.setOnAction(e -> getButtonClicked(e));**

**HBox panes = new HBox(5);**

**this.pizzas = new Pizza();**

**this.toppings = new Toppings(this.pizzas);**

**this.drinks = new Drinks();**

**/\***

**\*This to call stackpane from another class**

**and adding them to the root**

**\*/**

**PositionPane pnlPizza = new PositionPane("Pizza", (Node) this.pizzas);**

**PositionPane pnlTopings = new PositionPane("Toppings", (Node) this.toppings);**

**PositionPane pnlDrinks = new PositionPane("Drinks", (Node) this.drinks);**

**panes.getChildren().addAll((Node[]) (Object[]) new Node[]{pnlPizza, pnlTopings, pnlDrinks});**

**panes.setAlignment(Pos.CENTER);**

**panes.setMaxHeight(200.0);**

**BorderPane.setMargin((Node) panes, new Insets(15.0, 5.0, 5.0, 5.0));**

**topPane.getChildren().addAll((Node[]) (Object[]) new Node[]{this.menuBar, panes});**

**/\***

**\*This is to call the variable in the method**

**and naming them**

**\*/**

**(this.txaDisplay = new TextArea()).setPrefHeight(250.0);**

**this.txaDisplay.setEditable(false);**

**final PositionPane pnlDisplay = new PositionPane("Ordered Items", (Node) this.txaDisplay);**

**final HBox buttonPane = new HBox(25.0);**

**(this.btnOK = new Button("\_OK")).setPrefWidth(80.0);**

**this.btnOK.setAlignment(Pos.CENTER);**

**this.btnOK.setOnAction(e -> this.getButtonClicked(e));**

**(this.btnCancel = new Button("\_Cancel")).setAlignment(Pos.CENTER);**

**/\***

**\*setting the margin, width and naming for the button**

**\*/**

**this.btnCancel.setPrefWidth(80.0);**

**this.btnOK.setMnemonicParsing(true);**

**this.btnCancel.setMnemonicParsing(true);**

**this.btnCancel.setOnAction(e -> this.getButtonClicked(e));**

**buttonPane.getChildren().addAll((Node[]) (Object[]) new Node[]{this.btnOK, this.btnCancel});**

**buttonPane.setAlignment(Pos.CENTER);**

**buttonPane.setPadding(new Insets(10.0, 10.0, 10.0, 10.0));**

**pane.setTop((Node) topPane);**

**pane.setCenter((Node) pnlDisplay);**

**pane.setBottom((Node) buttonPane);**

**/\***

**\*To show the stage**

**\*/**

**Scene scene = new Scene((Parent) pane);**

**primaryStage.setTitle("Hello World!");**

**primaryStage.setScene(scene);**

**primaryStage.show();**

**}**

**/\*\***

**\* @param args the command line arguments**

**\*/**

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

**launch(args);**

**}**

**/\***

**\*Method to display the receipt**

**\*/**

**public void display() {**

**DecimalFormat dollar = new DecimalFormat("0.00");**

**this.txaDisplay.setText(String.format("%12s\n", "Receipt"));**

**if (this.pizzas.costPizza() != 0.0) {**

**this.txaDisplay.appendText(this.pizzas.toString());**

**}**

**if (this.toppings.getToppingCost() != 0.0) {**

**this.txaDisplay.appendText(this.toppings.toString());**

**}**

**if (this.drinks.getRate() != 0.0) {**

**this.txaDisplay.appendText(this.drinks.toString());**

**}**

**this.txaDisplay.appendText(String.format("%22s\n", "========================="));**

**final double subtotal = this.pizzas.costPizza() + this.toppings.getToppingCost() + this.drinks.getRate();**

**final double tax = subtotal \* 0.13;**

**final double total = subtotal + tax;**

**if (total != 0.0) {**

**this.txaDisplay.appendText(String.format("%5s%16s\n", "Subtotal:", dollar.format(subtotal)));**

**this.txaDisplay.appendText(String.format("%5s%16s\n", "HST: ", dollar.format(tax)));**

**this.txaDisplay.appendText(String.format("%5s%16s\n", "Total: ", dollar.format(total)));**

**} else {**

**this.txaDisplay.setText("Please select a pizza size and/or a drink");**

**}**

**}**

**/\***

**\*action event for the button to show receipt or cancel it**

**\*/**

**public void getButtonClicked(ActionEvent e) {**

**if (e.getSource() == this.exitItem) {**

**System.exit(0);**

**}**

**if (e.getSource() == this.btnCancel) {**

**this.clearPage();**

**return;**

**}**

**if (e.getSource() == this.btnOK) {**

**try {**

**int numOfPizzas;**

**if (this.pizzas.rbtSmall.isSelected() || this.pizzas.rbtMedium.isSelected() || this.pizzas.rbtLarge.isSelected()) {**

**numOfPizzas = this.pizzas.noOfPizza();**

**} else {**

**numOfPizzas = 0;**

**}**

**int numOfDrinks;**

**if (this.drinks.rbtCoke.isSelected() || this.drinks.rbtJuice.isSelected() || this.drinks.rbtMilk.isSelected()) {**

**numOfDrinks = this.drinks.noOfDrinks();**

**} else {**

**numOfDrinks = 0;**

**}**

**if (numOfPizzas < 0 || numOfDrinks < 0) {**

**this.txaDisplay.setText("Invalid number");**

**return;**

**}**

**} catch (NumberFormatException ex) {**

**this.txaDisplay.setText("Invalid entry; must be an Integer value");**

**return;**

**}**

**}**

**this.display();**

**return;**

**}**

**/\***

**\*method to reset the gui**

**\*/**

**private void clearPage() {**

**this.pizzas.txtPizza.clear();**

**this.pizzas.rbtSmall.setSelected(false);**

**this.pizzas.rbtMedium.setSelected(false);**

**this.pizzas.rbtLarge.setSelected(false);**

**this.toppings.chkCheese.setSelected(false);**

**this.toppings.chkMushroom.setSelected(false);**

**this.toppings.chkOlives.setSelected(false);**

**this.toppings.chkPepperoni.setSelected(false);**

**this.drinks.rbtCoke.setSelected(false);**

**this.drinks.rbtJuice.setSelected(false);**

**this.drinks.rbtMilk.setSelected(false);**

**this.drinks.txaDrinks.clear();**

**this.txaDisplay.clear();**

**}**

**}**

**/\*\* Name: Essa Tahir**

**\* Assignment: Assignment2**

**\* Program: PROG24178**

**\***

**\* Making Pizza order program**

**\*/**

**package A4\_EssaTahir;**

**import javafx.geometry.Insets;**

**import javafx.scene.Node;**

**import javafx.scene.control.Label;**

**import javafx.scene.control.RadioButton;**

**import javafx.scene.control.TextField;**

**import javafx.scene.control.ToggleGroup;**

**import javafx.scene.layout.VBox;**

**/\*\***

**\***

**\* @author Essa OG**

**\*/**

**/\***

**\*/**

**public class Drinks extends VBox {**

**/\***

**\* for storing drinks prices**

**\*/**

**private double cokePrice ;**

**private double juicePrice ;**

**private double milkPrice;**

**/\***

**\* radiobtton to select which drink**

**\*/**

**protected RadioButton rbtCoke;**

**protected RadioButton rbtJuice;**

**protected RadioButton rbtMilk;**

**/\***

**\* ToggleGroup to select which drink**

**\*/**

**private ToggleGroup drinks1;**

**/\***

**\* Label for the text field**

**\*/**

**private Label lblDrinks;**

**/\***

**\* text field for input**

**\*/**

**protected TextField txaDrinks;**

**/\***

**\* constructor for calling drinks**

**\*/**

**public Drinks(){**

**super(10);**

**this.cokePrice = 1.25;**

**this.juicePrice = 1.95;**

**this.milkPrice = 2.25;**

**this.rbtCoke = new RadioButton("Coke");**

**this.rbtJuice = new RadioButton("Juice");**

**this.rbtMilk = new RadioButton("Milk");**

**this.drinks1 = new ToggleGroup();**

**this.rbtCoke.setToggleGroup(this.drinks1);**

**this.rbtJuice.setToggleGroup(this.drinks1);**

**this.rbtMilk.setToggleGroup(this.drinks1);**

**this.lblDrinks = new Label("Number of Drinks");**

**this.txaDrinks = new TextField();**

**setPadding(new Insets(18,10,10,10));**

**getChildren().addAll(new Node[]{this.rbtCoke,this.rbtJuice,this.rbtMilk,this.lblDrinks,this.txaDrinks});**

**}**

**/\***

**\*method for getting rate of drinks**

**\*/**

**public double getRate(){**

**if(this.rbtCoke.isSelected()){**

**return 1.25;**

**}**

**else if(this.rbtJuice.isSelected()){**

**return 1.95;**

**}**

**return 2.25;**

**}**

**/\***

**\*method for the drink name**

**\*/**

**public String getName(){**

**if(this.rbtCoke.isSelected()){**

**return "COKE";**

**}**

**else if(this.rbtJuice.isSelected()){**

**return "JUICE";**

**}**

**return "MILK";**

**}**

**/\***

**\*method for Number of drinks**

**\*/**

**public int noOfDrinks(){**

**// CheckNum();**

**int number = Integer.parseInt(this.txaDrinks.getText());**

**return number;**

**}**

**/\***

**method to calculate cost**

**\*/**

**public double calculateCost(){**

**double cost;**

**if(this.rbtCoke.isSelected()){**

**cost = 1.25 \* Integer.parseInt(this.txaDrinks.getText());**

**}**

**else if(this.rbtJuice.isSelected()){**

**cost = 1.95 \* Integer.parseInt(this.txaDrinks.getText());**

**}**

**else {**

**cost = 2.25 \* Integer.parseInt(this.txaDrinks.getText());**

**}**

**return cost;**

**}**

**/\***

**\* method for chking number is integer**

**\*/**

**public Boolean CheckNum(){**

**int check = noOfDrinks();**

**try{**

**check = Integer.parseInt(this.txaDrinks.getText());**

**}catch(NumberFormatException e) {**

**System.out.println("Input is not a valid integer");**

**}**

**return false;**

**}**

**/\***

**\* method printing the output on pizzeria**

**\*/**

**public String toString(){**

**return String.format("%5s%18s\n%13s\n", "Drinks:", calculateCost(), " " +**

**noOfDrinks() + " " + getName() + " @ " + getRate() );**

**}**

**}**

**/\*\* Name: Essa Tahir**

**\* Assignment: Assignment2**

**\* Program: PROG24178**

**\***

**\* Making Pizza order program**

**\*/**

**package A4\_EssaTahir;**

**import javafx.geometry.Insets;**

**import javafx.scene.Node;**

**import javafx.scene.control.CheckBox;**

**import javafx.scene.control.Label;**

**import javafx.scene.control.RadioButton;**

**import javafx.scene.control.TextField;**

**import javafx.scene.control.ToggleGroup;**

**import javafx.scene.layout.VBox;**

**/\*\***

**\***

**\* @author Essa OG**

**\*/**

**public class Toppings extends VBox {**

**/\***

**\* for storing drinks prices**

**\*/**

**private double cheese = 1;**

**private double pepperoni = 1.75;**

**private double mushroom = 1.25;**

**private double olives = 1.50;**

**/\***

**\* checkboxs to select which topping**

**\*/**

**protected CheckBox chkCheese, chkPepperoni, chkMushroom, chkOlives;**

**/\***

**\*calling the pizza class**

**\*/**

**private Pizza size;**

**/\***

**\* constructor for calling toppings**

**\*/**

**public Toppings(Pizza size){**

**super(10);**

**this.chkCheese = new CheckBox("Cheese");**

**this.chkMushroom = new CheckBox("Mushroom");**

**this.chkPepperoni = new CheckBox("Pepperoni");**

**this.chkOlives = new CheckBox("Olives");**

**this.size = size;**

**setPadding(new Insets(18, 10, 10, 10));**

**getChildren().addAll(new Node[] { this.chkCheese, this.chkPepperoni, this.chkMushroom, this.chkOlives });**

**}**

**/\***

**\* method for the topping cost**

**\*/**

**public double getToppingCost(){**

**double cost = 0;**

**int noOfPizza = 0;**

**if((this.size.rbtSmall.isSelected()) || (this.size.rbtMedium.isSelected()) || (this.size.rbtLarge.isSelected())){**

**noOfPizza = Integer.parseInt(this.size.txtPizza.getText());**

**}else {**

**cost = 0;**

**}**

**if(this.chkCheese.isSelected()){**

**cost += this.cheese\*noOfPizza;**

**}**

**if(this.chkPepperoni.isSelected()){**

**cost += this.pepperoni\*noOfPizza;**

**}**

**if(this.chkOlives.isSelected()){**

**cost += this.olives\*noOfPizza;**

**}**

**if(this.chkMushroom.isSelected()){**

**cost += this.olives\*noOfPizza;**

**}**

**return cost;**

**}**

**/\***

**\* method printing the output of toppings**

**\*/**

**public String toString(){**

**String toppings = "";**

**String pizzaNum = this.size.txtPizza.getText();**

**if (this.chkCheese.isSelected()) {**

**toppings = toppings + "\n " + pizzaNum + " Cheese @ " + this.cheese;**

**}**

**if (this.chkPepperoni.isSelected()) {**

**toppings = toppings + "\n " + pizzaNum + " Pepperoni @ " + this.pepperoni;**

**}**

**if (this.chkOlives.isSelected()) {**

**toppings = toppings + "\n " + pizzaNum + " Olives @ " + this.olives;**

**}**

**if (this.chkMushroom.isSelected()) {**

**toppings = toppings + "\n " + pizzaNum + " Mushrooms @ " + this.mushroom;**

**}**

**if ((!this.chkCheese.isSelected()) && (!this.chkPepperoni.isSelected()) &&**

**(!this.chkOlives.isSelected()) && (!this.chkMushroom.isSelected())) {**

**throw new IllegalArgumentException();**

**}**

**return String.format("%5s%16s%7s\n", "Toppings:", (getToppingCost()), toppings );**

**}**

**}**

**/\*\* Name: Essa Tahir**

**\* Assignment: Assignment2**

**\* Program: PROG24178**

**\***

**\* Making Pizza order program**

**\*/**

**package A4\_EssaTahir;**

**import javafx.geometry.Insets;**

**import javafx.scene.Node;**

**import javafx.scene.control.Label;**

**import javafx.scene.control.RadioButton;**

**import javafx.scene.control.TextField;**

**import javafx.scene.control.ToggleGroup;**

**import javafx.scene.layout.VBox;**

**/\*\***

**\***

**\* @author Essa OG**

**\*/**

**public class Pizza extends VBox {**

**/\***

**\* for storing drinks prices**

**\*/**

**private double sPizza = 5.25;**

**private double mPizza = 7.5;**

**private double lPizza = 9.95;**

**/\***

**\* radiobtton to select which pizza size**

**\*/**

**protected RadioButton rbtSmall, rbtMedium, rbtLarge;**

**/\***

**\* toggleGroup to select which pizza size**

**\*/**

**private ToggleGroup pizza1;**

**/\***

**\* Label for the text field**

**\*/**

**private Label lblPizza;**

**/\***

**\* text field for input**

**\*/**

**protected TextField txtPizza;**

**/\***

**\* constructor for calling pizza**

**\*/**

**public Pizza(){**

**super(10);**

**this.rbtSmall = new RadioButton("Small");**

**this.rbtMedium = new RadioButton("Medium");**

**this.rbtLarge = new RadioButton("Large");**

**this.pizza1 = new ToggleGroup();**

**this.rbtSmall.setToggleGroup(this.pizza1);**

**this.rbtMedium.setToggleGroup(this.pizza1);**

**this.rbtLarge.setToggleGroup(this.pizza1);**

**this.lblPizza = new Label("Number of Pizzas: ");**

**this.txtPizza = new TextField();**

**setPadding(new Insets(18.0D, 10.0D, 10.0D, 10.0D));**

**getChildren().addAll(new Node[] { this.rbtSmall, this.rbtMedium, this.rbtLarge, this.lblPizza, this.txtPizza });**

**}**

**/\***

**\* method for the cost of the pizza**

**\*/**

**public double costPizza(){**

**double cost;**

**if(this.rbtSmall.isSelected()){**

**cost = this.sPizza \* noOfPizza();**

**}**

**else if(this.rbtMedium.isSelected()){**

**cost = this.mPizza\* noOfPizza();**

**}**

**else if(this.rbtLarge.isSelected()){**

**cost = this.lPizza\*noOfPizza();**

**}**

**else{**

**cost = 0.0;**

**}**

**return cost;**

**}**

**/\***

**\* method for checking number is integer**

**\*/**

**public Boolean CheckNum(){**

**int check = noOfPizza();**

**try{**

**check = Integer.parseInt(this.txtPizza.getText());**

**}catch(NumberFormatException e) {**

**System.out.println("Input is not a valid integer");**

**}**

**return false;**

**}**

**/\***

**\* method for number of pizzas**

**\*/**

**public int noOfPizza() {**

**// CheckNum();**

**int number = Integer.parseInt(this.txtPizza.getText());**

**return number;**

**}**

**/\***

**\* method for the size of pizza**

**\*/**

**public String PizzaSize(){**

**if(this.rbtSmall.isSelected()){**

**return " Small @ 5.25";**

**}**

**if(this.rbtMedium.isSelected()){**

**return " Medium @ 7.5";**

**}**

**if(this.rbtLarge.isSelected()){**

**return " Large @ 9.95";**

**}**

**return "no size selected";**

**}**

**/\***

**\* method for the output of pizza class**

**\*/**

**public String toString(){**

**return String.format("%7s%18s\n%10s\n", "Pizza: ", (costPizza()), " " +**

**noOfPizza() + PizzaSize() );**

**}**

**}**

**package A4\_EssaTahir;**

**import javafx.collections.ObservableList;**

**import javafx.geometry.Pos;**

**import javafx.scene.Node;**

**import javafx.scene.control.Label;**

**import javafx.scene.layout.StackPane;**

**public class PositionPane**

**extends StackPane**

**{**

**PositionPane(String titleString, Node content)**

**{**

**Label title = new Label(" " + titleString + " ");**

**title.getStyleClass().add("bordered-titled-title");**

**StackPane.setAlignment(title, Pos.TOP\_CENTER);**

**StackPane contentPane = new StackPane();**

**content.getStyleClass().add("bordered-titled-content");**

**contentPane.getChildren().add(content);**

**getStyleClass().add("bordered-titled-border");**

**getChildren().addAll(new Node[] { title, contentPane });**

**getStylesheets().add("styles.css");**

**}**

**}**

**/\*\* Name: Essa Tahir**

**\* Assignment: Assignment2**

**\* Program: PROG24178**

**\***

**\* Making Pizza order program**

**\*/**

**.bordered-titled-title {**

**-fx-background-color: white;**

**-fx-translate-y: -25;**

**-fx-font: 24px Vivaldi;**

**}**

**.bordered-titled-border {**

**-fx-content-display: top;**

**-fx-border-insets: 20 15 15 15;**

**-fx-background-color: yellow;**

**-fx-border-color: red;**

**-fx-border-width: 2;**

**}**

**.bordered-titled-content {**

**-fx-padding: 10 10 10 10;**

**}**

**.text-area{**

**-fx-font: 16px Monospace;**

**}**

**.menuFont{**

**-fx-font: 16px sans-serif;**

**}**