Text

Description automatically generated

**MS806 – Business Application Programming**

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**NUI Galway ID Number: 22225743**

**Assignment:** **1**

**Date of Submission:** **29/09/2022**

**Assignment1: Pizza Bothán**

**Screenshots of Application at RunTime:**

Graphical user interface, application

Description automatically generated

*Fig 1: On Form Load || Clear Button Pressed, & User Data Entered*

Graphical user interface, application

Description automatically generated

*Figure2: Form after START button is pressed*

Graphical user interface

Description automatically generated

*Fig 3: After Data Entered & Order Button Clicked*

Graphical user interface

Description automatically generated

*Fig 4: After Company Summary Button Clicked*

Graphical user interface

Description automatically generated

*Fig 5: Input Error – handled*

Graphical user interface, application

Description automatically generated

*Fig 6: After OK button pressed in Message Box*

Source Code:

/\* Student Name: Dilip Venkatesan Sankar

\* Student ID: 22225743

\* Date: 29/09/2022

\* Assignment: 1

\* Assignment: Create a well-designed application that allows “PizzaBothán”

\* staff to take table orders from customers.

\*/

**using** System**.**ComponentModel**;**

**using** System**.**Text**.**RegularExpressions**;**

**namespace** PizzaAssignment

**{**

**public** **partial** class WelcomeForm **:** Form

**{**

//Initial variables

const decimal price\_ham **=** 7.99m**;**

const decimal price\_pepperonie **=** 8.99m**;**

const decimal price\_pineapple **=** 9.99m**;**

const decimal price\_calzoni **=** 11.99m**;**

**public** int a **=** 0**;**

decimal total**;**

**public** static string CompanyTransactions**;**

**public** WelcomeForm**()**

**{**

InitializeComponent**();**

**this.**ActiveControl **=** HamPizzaText**;**

//Panel and GroupBox visibility based on START button click

MainPanel**.**Visible **=** **false;**

OrderGroupBox**.**Visible **=** **false;**

CompanySummayBox**.**Visible **=** **false;**

pictureBox1**.**Visible **=** **true;**

pictureBox2**.**Visible **=** **false;**

**}**

**private** void StartButton\_Click**(object** sender**,** EventArgs e**)**

**{**

MenuSummaryButton**.**Enabled **=** **false;**

/\* To check if the main menu has the server name and table name

\* If either one is not present then a error message will display \*/

**if** **(**ServerNameTB**.**Text **==** "" **&&** TableNumberTB**.**Text**==** ""**)**

**{**

DialogResult da\_0 **=** MessageBox**.**Show**(**"" **+**

"Please enter Server Name and Table Number!"**,**

"error"**,** MessageBoxButtons**.**OK**,** MessageBoxIcon**.**Warning**);**

**}**

**else** **if** **(**ServerNameTB**.**Text **==** ""**)**

**{**

DialogResult da\_1 **=** MessageBox**.**Show**(**"Please enter a Valid Server Name!"**,**

"error"**,**MessageBoxButtons**.**OK**,** MessageBoxIcon**.**Warning**);**

**}**

**else** **if** **(**TableNumberTB**.**Text **==** ""**)**

**{**

DialogResult da\_2 **=** MessageBox**.**Show**(**"Please enter a Valid Table Number!"**,**

"error"**,** MessageBoxButtons**.**OK**,** MessageBoxIcon**.**Warning**);**

**}**

**else**

**{**

**try**

**{**

//Dynamically change the header

**this.**Text **=** ServerNameTB**.**Text **+** " @ " **+** TableNumberTB**.**Text**;**

//Panel and GroupBox visibility as well as disabling

WelcomePanel**.**Visible **=** **false;**

MainPanel**.**Visible **=** **true;**

MenuGroupBox**.**Enabled **=** **true;**

//Used to highlight the text box

CalzoniPizzaText**.**Focus**();**

CalzoniPizzaText**.**SelectAll**();**

PineapplePizzaText**.**Focus**();**

PineapplePizzaText**.**SelectAll**();**

PepperoniPizzaText**.**Focus**();**

PepperoniPizzaText**.**SelectAll**();**

HamPizzaText**.**Focus**();**

HamPizzaText**.**SelectAll**();**

/\*Assigning the ServerName from WelcomePanel

to the TextBox in the OrderGroupBox \*/

ServerNameOrderPanel**.**Text **=** ServerNameTB**.**Text**;**

pictureBox2**.**Visible **=** **true;**

pictureBox1**.**Visible **=** **false;**

**}**

**catch(**Exception exp**)**

**{**

MessageBox**.**Show**(**exp**.**Message**);**

**}**

**}**

**}**

**private** void MenuGroupBox\_Enter**(object** sender**,** EventArgs e**)**

**{**

**}**

/\*Global variable assignment to calculate the Number of Pizza's Ordered

and Total number of Receipt's in the ComanySummayBox \*/

double SummaryOfNoOfPizza **=** 0**;**

double SummaryOfTotalReceipt **=** 0**;**

double temp\_a**,** temp\_b**,** temp\_c**;**

**private** void MenuSummaryButton\_Click**(object** sender**,** EventArgs e**)**

**{**

**this.**Text **=** "Company Summary Data"**;** //Dynamically change the header

//Panel and GroupBox visibility based on START button click

MenuSummaryButton**.**Enabled **=** **false;**

MenuGroupBox**.**Enabled **=** **false;**

CompanySummayBox**.**Enabled **=** **true;**

CompanySummayBox**.**Visible **=** **true;**

OrderGroupBox**.**Visible**=false;**

//Calculation for CompanySummayBox

SummaryOfNoOfPizza **+=** Convert**.**ToDouble**(**NoOfPizzaOrderedPanel**.**Text**);**

NumberPizzasOrderedTB**.**Text **=** Convert**.**ToString**(**SummaryOfNoOfPizza**);**

SummaryOfTotalReceipt **+=** Convert**.**ToDouble

**(**TotalTablePanel**.**Text**.**Substring**(**1**));**

TotalCompanyReceiptsTB**.**Text **=** "$" **+** Convert**.**ToString**(**SummaryOfTotalReceipt**);**

//Converting text to double to perform additon operation

//double.TryParse(TotalCompanyReceiptsTB.Text, out temp\_a);

temp\_a **=** Convert**.**ToDouble**(**TotalCompanyReceiptsTB**.**Text**.**Substring**(**1**));**

//double.TryParse(TotalCompanyTransacationsTB.Text, out temp\_b);

temp\_b **=** Convert**.**ToDouble**(**TotalCompanyTransacationsTB**.**Text**);**

temp\_c **=** temp\_a **/** temp\_b**;**

//Converting back to text to print on TextBox

AvgTransactionValueTB**.**Text **=** "$" **+** Convert**.**ToString**(**temp\_c**);**

**}**

**public** void MenuStartButton\_Click**(object** sender**,** EventArgs e**)**

**{**

/\*Error handling

\*Exception thrown if no pizza is ordered in if block

\*Exception thrown when alphabets are enterted in the textbox

\*If conditons are passed the try catch block is executed

\*Try block calculates the number of pizza and total

\*/

**if** **(**HamPizzaText**.**Text **==** "0" **&&** PepperoniPizzaText**.**Text **==** "0"

**&&** PineapplePizzaText**.**Text **==** "0" **&&** CalzoniPizzaText**.**Text **==** "0"**)**

**{**

DialogResult da1 **=** MessageBox**.**Show**(**"" **+**

"Please Order atleast one pizza!"**,** "Error"**,**

MessageBoxButtons**.**OK**,** MessageBoxIcon**.**Error**);**

**}**

**else** **if** **(** Regex**.**IsMatch**(**HamPizzaText**.**Text**,**@"^[a-zA-Z]+$"**)** **||**

Regex**.**IsMatch**(**PepperoniPizzaText**.**Text**,** @"^[a-zA-Z]+$"**)** **||**

Regex**.**IsMatch**(**PineapplePizzaText**.**Text**,** @"^[a-zA-Z]+$"**)** **||**

Regex**.**IsMatch**(**CalzoniPizzaText**.**Text**,** @"^[a-zA-Z]+$"**))**

**{**

DialogResult da **=** MessageBox**.**Show**(**"Please enter Numerical Data Only!"**,**

"Error"**,**MessageBoxButtons**.**OK**,** MessageBoxIcon**.**Error**);**

CalzoniPizzaText**.**Focus**();**

CalzoniPizzaText**.**SelectAll**();**

PineapplePizzaText**.**Focus**();**

PineapplePizzaText**.**SelectAll**();**

PepperoniPizzaText**.**Focus**();**

PepperoniPizzaText**.**SelectAll**();**

HamPizzaText**.**Focus**();**

HamPizzaText**.**SelectAll**();**

**}**

**else**

**{**

**try**

**{**

**this.**Text **=** "Table Summary"**;** //Dynamically change the header

//Panel and GroupBox visibility based on START button click

MenuStartButton**.**Enabled **=** **false;**

MenuSummaryButton**.**Enabled **=** **true;**

MenuGroupBox**.**Enabled **=** **false;**

OrderGroupBox**.**Visible **=** **true;**

CompanySummayBox**.**Visible **=** **false;**

//Pizza price calculation

decimal**[]** itemcost **=** **new** decimal**[**100**];**

itemcost**[**0**]** **=** Convert**.**ToDecimal**(**HamPizzaText**.**Text**)** **\***

price\_ham**;**

itemcost**[**1**]** **=** Convert**.**ToDecimal**(**PepperoniPizzaText**.**Text**)** **\***

price\_pepperonie**;**

itemcost**[**2**]** **=** Convert**.**ToDecimal**(**PineapplePizzaText**.**Text**)** **\***

price\_pineapple**;**

itemcost**[**3**]** **=** Convert**.**ToDecimal**(**CalzoniPizzaText**.**Text**)** **\***

price\_calzoni**;**

decimal itemtotal**;**

itemtotal **=** Convert**.**ToDecimal**(**HamPizzaText**.**Text**)** **+**

Convert**.**ToDecimal**(**PepperoniPizzaText**.**Text**)** **+**

Convert**.**ToDecimal**(**PineapplePizzaText**.**Text**)** **+**

Convert**.**ToDecimal**(**CalzoniPizzaText**.**Text**);**

//NoOfPizzaOrderedPanel.Text = Convert.ToString(itemtotal);

NoOfPizzaOrderedPanel**.**Text **=** itemtotal**.**ToString**();**

total **=** itemcost**[**0**]** **+** itemcost**[**1**]** **+** itemcost**[**2**]** **+** itemcost**[**3**];**

TotalTablePanel**.**Text **=** "$" **+** total**.**ToString**();**

//Step to find the total number of orders

a**++;**

TotalCompanyTransacationsTB**.**Text **=** a**.**ToString**();**

**}**

**catch** **(**Exception exp1**)**

**{**

MessageBox**.**Show**(**exp1**.**Message**);**

**}**

**}**

**}**

**private** void ExitButton\_Click**(object** sender**,** EventArgs e**)**

**{**

//Section to produce exit button operations

DialogResult iExit**;**

iExit **=** MessageBox**.**Show**(**"Confirm if you want to exit the system"**,**

"Ordering system"**,** MessageBoxButtons**.**YesNo**,** MessageBoxIcon**.**Question**);**

**if** **(**iExit **==** DialogResult**.**Yes**)**

**{**

Application**.**Exit**();**

**}**

**}**

**private** void ClearButton\_Click\_1**(object** sender**,** EventArgs e**)**

**{**

//Operation to be peforem on Clear Button Click

ServerNameTB**.**Text **=** ""**;**

TableNumberTB**.**Text **=** ""**;**

TotalCompanyTransacationsTB**.**Text **=** ""**;**

NumberPizzasOrderedTB**.**Text **=** ""**;**

TotalCompanyReceiptsTB**.**Text **=** ""**;**

AvgTransactionValueTB**.**Text **=** ""**;**

HamPizzaText**.**Text **=** "0"**;**

PepperoniPizzaText**.**Text **=** "0"**;**

PineapplePizzaText**.**Text **=** "0"**;**

CalzoniPizzaText**.**Text **=** "0"**;**

MainPanel**.**Visible **=** **false;**

OrderGroupBox**.**Visible **=** **false;**

CompanySummayBox**.**Visible **=** **false;**

WelcomePanel**.**Visible **=** **true;**

MenuStartButton**.**Enabled **=** **true;**

pictureBox1**.**Visible **=** **true;**

pictureBox2**.**Visible **=** **false;**

**this.**Text **=** "Welcome to Pizza Bothán"**;** //Dynamically change the header

**}**

**}**

**}**

“In submitting this work, I confirm that it is entirely my own. I acknowledge that I may be invited to undertake an online interview if there is any concern in relation to the integrity of my submission.”