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SUBJECT: Windows Programming

SUBJECT CODE: 3CS0224

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Contents

User Interface	3
Splash Screen	3
Main Form.....	4
About Box	5
Checkout form	5
Functionality.....	6
Adding first item into basket.....	6
Adding second item into basket	8
Adding third item into basket.....	10
Placing an order without discount.	11
Placing an order with self pick-up discount.....	12
Menu Strips	12
Error handling	13
Adding to basket without selecting flavour.	13
Placing order with an empty basket.....	14
Issues faced	15
Object-Oriented Programming.....	15
Design	15
Refactor	15
References.....	16

User Interface

Splash Screen



Main Form

Form1

File Help

Order Information

Pizza

- ☐ Veggie Lover - \$20
- ☐ Ultimate Hawaiian - \$25
- ☐ Aloha Chicken - \$30
- ☐ Flaming Tuna - \$35

Toppings

☐ Cheese - \$3 ☐ Mushroom - \$2 ☐ Olive - \$2 ☐ Pepperoni - \$3.5

Pizza

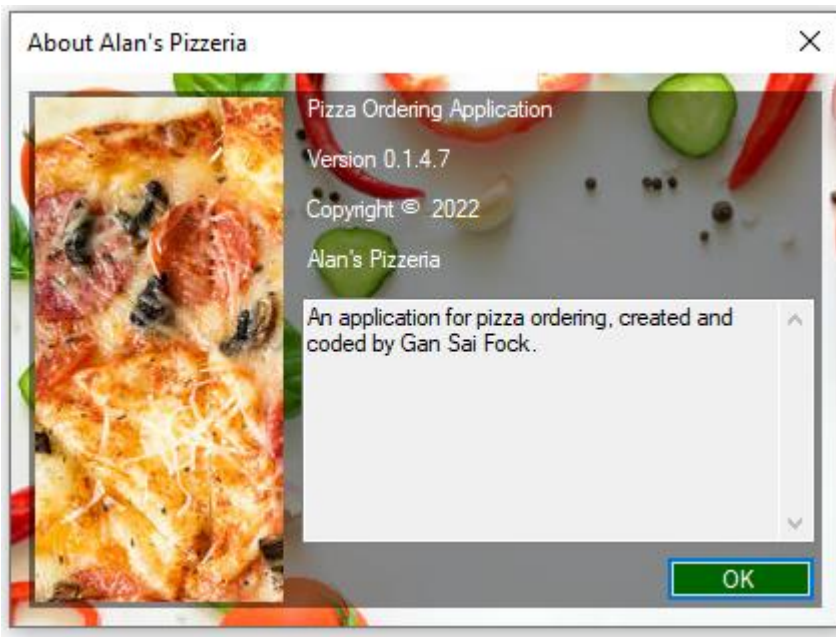
Subtotal

Basket

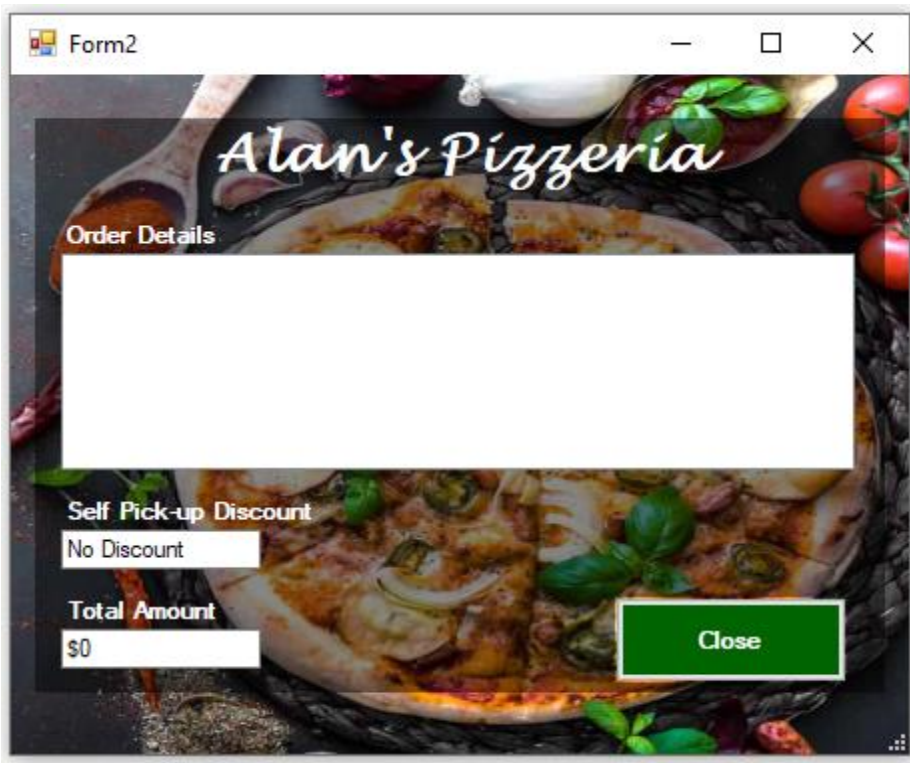
Total

☐ Self Pick-up

About Box



Checkout form




Functionality

Adding first item into basket

Form1

File Help

Order Information



Pizza

- ☐ Veggie Lover - \$20
- ☐ Ultimate Hawaiian - \$25
- ☐ Aloha Chicken - \$30
- ☐ Flaming Tuna - \$35

Toppings

☒ Cheese - \$3 ☐ Mushroom - \$2 ☐ Olive - \$2 ☐ Pepperoni - \$3.5

Pizza

Veggie Lover with Cheese
\$23

Subtotal

\$23

Add To Basket

Basket

Veggie Lover with Cheese
\$23

Total

\$23

☐ Self Pick-up

Order **Clear All** **Exit**


Above figure is the screenshot of adding an item to the basket, this is done by selecting the flavour and topping, then clicking the “Add To Basket” button. Then the pizza selected will be displayed on the Pizza listbox and the basket. Price is also displayed on the “Subtotal” and “Total” textboxes.

Adding second item into basket

Form1

File Help

Order Information



Pizza

- ☐ Veggie Lover - \$20
- ☐ Ultimate Hawaiian - \$25
- ☐ Aloha Chicken - \$30
- ☐ Flaming Tuna - \$35

Toppings

☐ Cheese - \$3 ☐ Mushroom - \$2 ☐ Olive - \$2 ☐ Pepperoni - \$3.5

Pizza

Flaming Tuna
\$35

Subtotal

\$35

Basket

Veggie Lover with Cheese
\$23
Flaming Tuna
\$35

Total

\$58

Add To Basket

☒ Self Pick-up

Order **Clear All** **Exit**

The above figure is the screenshot of adding a second pizza to the existing order. As seen in the Basket, the new pizza is added to the listbox while the first pizza is remaining in the listbox. The


“Total” textbox displays the sum of the price for the two pizzas. While “Subtotal” textbox displays the current pizza’s price.

Adding third item into basket

Form1

File Help

Order Information



Pizza

- ☐ Veggie Lover - \$20
- ☐ Ultimate Hawaiian - \$25
- ☒ Aloha Chicken - \$30
- ☐ Flaming Tuna - \$35

Toppings

☒ Cheese - \$3 ☒ Mushroom - \$2 ☒ Olive - \$2 ☒ Pepperoni - \$3.5

Pizza

Aloha Chicken with Cheese, Mushroom, Olive, and Pepperoni
\$40.5

Subtotal

\$40.5

Basket

Veggie Lover with Cheese
\$23
Flaming Tuna
\$35
Aloha Chicken with Cheese, Mushroom, Olive, and Pepperoni
\$40.5

Total

\$98.5

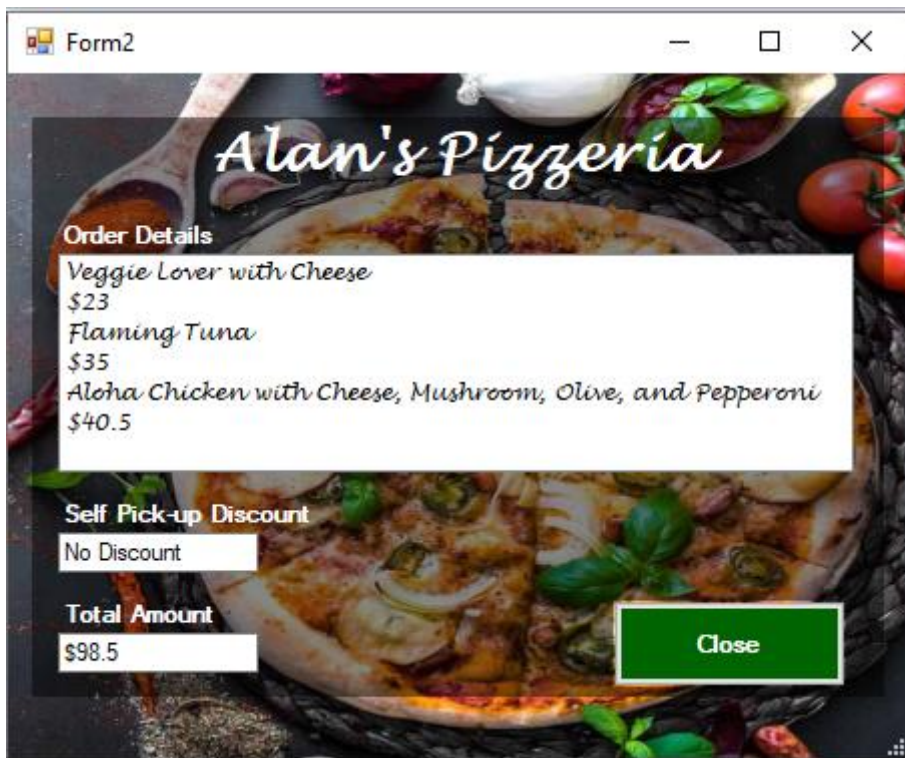
☒ Self Pick-up

Buttons: Add To Basket, Order, Clear All, Exit

From the above figure, there is a third pizza being added to the basket. The pizza has all the toppings selected and displayed in the listboxes. To place the order, the user can click on the “Order”

button, if the user wishes to pick up the order, they may select the “Self Pick-up” button. If the user wishes to clear out the current order, they may click on the “Clear All” button. The “Exit” button will close the application when clicked.

Placing an order without discount.



Form2

Alan's Pizzeria

Order Details

- Veggie Lover with Cheese
\$23
- Flaming Tuna
\$35
- Aloha Chicken with Cheese, Mushroom, Olive, and Pepperoni
\$40.5

Self Pick-up Discount
No Discount

Total Amount
\$98.5

Close

After clicking the “Order Button”, another form will appear, showing the order details. Other than that, the total price is also displayed.

Placing an order with self pick-up discount.

The screenshot shows a Windows application window titled "Form2" with a background image of pizzas. The window contains the following text:

Alan's Pizzeria

Order Details

- Veggie Lover with Cheese \$23
- Flaming Tuna \$35
- Aloha Chicken with Cheese, Mushroom, Olive, and Pepperoni \$40.5

Self Pick-up Discount
\$9.85

Total Amount
\$88.65

A green button labeled "Close" is located at the bottom right of the order details box.

If the user places an order with the “Self Pick-up” selected, then they may enjoy 10% discount. The discount is shown in the “Self Pick-up Discount” textbox.

Menu Strips

The first screenshot shows a menu strip titled "Form1" with the following items:

- File
- Help
- Order
- Clear All

The second screenshot shows a menu strip titled "Form1" with the following items:

- Help
- About
- Exit

As shown on the two screenshots above, the user can also achieve the same result as the button through menu strip. Clicking “About” will display the About form to the user.

Error handling

Adding to basket without selecting flavour.

The screenshot shows a Windows application window titled "Form1" with a menu bar containing "File" and "Help". The application has a background image of a pizza. The main interface includes several sections:

- Order Information:** A large empty white rectangular box.
- Pizza:** A list of pizza flavors with radio button selection:
 - ☐ Veggie Lover - \$20
 - ☐ Ultimate Hawaiian - \$25
 - ☐ Aloha Chicken - \$30
 - ☐ Flaming Tuna - \$35
- Toppings:** A list of toppings with checkbox selection:
 - ☐ Cheese - \$3
 - ☐ Mushroom - \$2
 - ☐ Olive - \$2
 - ☐ Pepperoni - \$3.5
- Pizza:** A single-line text input field.
- Subtotal:** A single-line text input field.
- Basket:** A large empty white rectangular box.
- Total:** A single-line text input field.
- Buttons:** "Add To Basket" (green), "Order" (green), "Clear All" (green), "Exit" (green), and "Self Pick-up" (radio button).

An error dialog box is displayed in the center of the screen with the title "You must select a flavour". It contains an "OK" button.

If the user attempts to click “Add To Basket” without selecting any flavour, a message will be displayed, telling the user, “You must select a flavour”.

Placing order with an empty basket.

The screenshot shows a Windows application window titled "Form1" with a menu bar containing "File" and "Help". The background of the application is a pizza. The interface includes several sections:

- Order Information:** A large empty white rectangular box.
- Pizza:** A list of four pizza options, each with a radio button:
 - ☐ Veggie Lover - \$20
 - ☐ Ultimate Hawaiian - \$25
 - ☐ Aloha Chicken - \$30
 - ☐ Flaming Tuna - \$35
- Toppings:** A row of four checkboxes with their respective prices:
 - ☐ Cheese - \$3
 - ☐ Mushroom - \$2
 - ☐ Olive - \$2
 - ☐ Pepperoni - \$3.5
- Pizza:** A text input field.
- Subtotal:** A text input field.
- Basket:** A large empty white rectangular box.
- Total:** A text input field.
- Buttons:** "Add To Basket" (green), "Order" (green), "Clear All" (green), and "Exit" (green).
- Radio Button:** A radio button labeled "Self Pick-up" is located at the bottom right.

An error dialog box is displayed in the center of the window with the title "Basket cannot be empty." and an "OK" button.

If the user attempts to place an order with an empty basket, a message saying, “Basket cannot be empty.” Will be shown. Preventing the user from completing the action.

Issues faced

Object-Oriented Programming

I faced some issues with applying object-oriented programming to the project in the beginning because the chapter wasn't covered in lecturer at the time when I started the project. I did not have a proper grasp of how objects and attributes are declared in VB.NET, so I had to resolve this issue by searching it on the Internet. I ended up using properties in VB.NET to get and set values for my objects.

Design

I encountered difficulty with creating a design for the system as I am inexperienced with UI/UX. I ended up solving this problem by watching some tutorial videos for VB.NET design. The result is that I wrote some code to change the font, background and colour of

Refactor

Over the course of few days, I have made many edits and changes to the code until it became cluttered and hard to keep track. This led to difficulty in making changes as I must go through multiple lines of code to change a feature. I ended up spending a day to clean up the code by refactoring some parts by writing functions and subroutine. Other than that, I also improved and reorganized the code to make it easier to read by adding comments.

References

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