



American International University- Bangladesh

CSC 1205: Object Oriented Programming 1 (JAVA)

CO4 Evaluation Project Concluding Report Spring 19-20

Group ID: J05

Project Title: Food Court Management Application

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Food Court Management Application

Introduction:

Why you are doing this project? (No more than 60 words)

Today, innovation in the restaurant industry is happening during every facet of the user experience, even when your customers don't interact directly with people. Food court management applications are having significant success as third-party delivery services for many types of restaurants. The benefits of the application is plentiful. It gives restaurants new revenue opportunities, introduces their food to new consumers and gives loyal fans another way to enjoy their favorite restaurant's meals. That's why we are doing the project.

Problem Analysis:

What kind of problem is being solved with this project? Who will use this application? (No more than 60 words)

The food court manager, restaurant owners or any customer can use this application. In this application they can efficiently complete their task. The application implements in such a way, so that their inputs works accurately as their requirement. They can easily handle any operations in this application. Another thing is that the data will utilize in perfect way.

UI Design Analysis:

How will the users interact with this application? How can it be improved? (No more than 60 words)

This application is still in developing stage it only works in console for now. User have to interact with this using their command prompt. For better user interact this application can be developed using GUI so that user find it interesting for using this application.

Logical Analysis:

How much logic has been applied in this application? Are the applied logics working properly? Is there any logical limitations? (No more than 100 words).

The program followed logical steps in accordance to input and coherently made necessary decisions and actions to make resources to facilitate the inputs given by the users. In this application we applied mathematical and Boolean logic. We used logic in adding or removing method and made a menu of each option. By using this logic we tried to make a good interface for the user. Every logic has been working properly.



Food Court Management Application

OOP Concept Analysis:

What are the OOP1 principles used in this project? How have been they applied? Explain the OOP concepts used in this application (No more than 3 sentences per concept)?

In this project we tried to implements 4 OOP1 principles and they are like:

Encapsulation: Encapsulation is the mechanism of binding one attribute with a method. It is achieve by using access modifier. In our project we use encapsulation at **Employee**, **MainDish**, **Restaurant**, **Appetizers** class. We can access private attribute with set and get method outside of the class.

Inheritance: Inheritance represents the **IS-A relationship** which is also known as a *parent-child* relationship. In our project **FoodItem** is a parent of **MainDish** and **Appetizers** class. So **MainDish** and **Appetizers** class can access or inherit many properties from **FoodItem** class.

Abstraction: Abstraction is a process of hiding the details and showing only functionality to the user. We use abstraction in **FoodItem** class. So we cannot make any object of account class but we can make reference and call an object from other class.

Polymorphism: Polymorphism is the ability of an object to take on many forms. I also implement this concept in our application while implementing Interface and Abstraction. We use same function or method to work on different class.

Interface: An interface is just like an abstract class but it does not have any regular methods/non abstract methods in it. In our application we implement abstraction by using interface. We implement interface classes like **FoodItemOperations**, **EmployeeOperations**, **RestaurantOperations** and **IQuantity**.

Impact of this Project:

What impact this project will have on the society and economy? How will people be benefitted from your project?

(Maximum 80 words)

The food court application is user friendly, so that maintaining the application is easier. We do not need go outside for searching a restaurant. We can easily find restaurants and can order the require foods and appetizers. By using this application we can go through all of the restaurants and search the best food. Then we can compare the prize. In this manner our life can be easier than before. The restaurant owners or food court manager can easily maintain their employees. They can add or remove employees and can pay their salary via this application.

Limitations and Possible Future Improvements:

(Maximum 80 words)

At this time all we facing a pandemic called COVID-19 which terminate all of our outside work and we need to do work from home. By implementing database we can use this project in mass scale. Also we can implement graphical interface, using this feature the project will be user friendly. Some logical limitation can be found like we didn't add some logical feature like user default input but those doesn't make any issue in this application. Those limitation will be solved in future update. In future, we have to be more updated and more efficient.

