
CS-217 Object Oriented Programming

Project (Total Marks: 500)

Due Date: 11:59 PM 16th, June 2021

INSTRUCTIONS

- Zero marks will be awarded to the students involved in plagiarism.
- All the submissions will be done on google classroom.
- You have to submit zip folder containing all .java files. The name of the folder should be named after course section and roll number. i.e., CS217_Section_RollNO
- Naming convention must be followed strictly.
- No late submissions will be entertained in any case.
- Assignment should be implemented in java
- Apply most of the OOP concepts taught throughout the semester. We are expecting you to implement all the concepts taught in the course in the appropriate contexts. We will evaluate the design of your OO code, the number of classes, use of association and inheritance, the concept of abstraction and encapsulation, String classes, File and Exception handling, and the Graphical User Interface.

Food on Wheels

Food on Wheels is a Food Delivery Management System available as a desktop application. This application will help restaurants and customers prepare/make orders using a desktop application that will make their orders as simple as a click of a button away. The system will be used by several users such as Customers, Restaurant, Admin, and Riders. Before stepping into the main system, a user has to pass through a login system to get access, he/she should provide the login id, and if the login id matches then the user has to provide a password to continue. Then the user can make an order by selecting from the main menu. After logging in as a user the system displays a menu of a total of 15 food items with their prices and the user have to select any of them to order. The Customer can place order. There should be one order at a time. After selecting an order, the system asks whether to update the order or not, then proceeds to the quantity of that item. They can also track their placed orders to know their status. After all these the system saves the order and asks whether to add another order or not. Then the system generates the bill for the customer. At last, a bill receipt is displayed with the bill number, order number, and the total bill amount in rupees. Similarly, Restaurants can receive the orders and once prepared will calculate the total price and dispatch the order via a Rider. The Rider will deliver the order to the Customer and update the status of the order. Upon receiving payment (if cash on delivery) from the customer, the Rider will log the payment information onto the system. The Admin also has an important role

in this application, i.e., to allow or deny a Restaurant to create an account and/or modify it. Also, to add Rider's information (after validating the details). In this way, the system provides several interfaces that will be used by different users to fulfill their roles and responsibilities.

Features of the system

• Customer

Customers will use the Food on Wheels application to look up available food items in the recent menu. They will also be allowed to place an order i.e., after selecting a restaurant of their choice they will select the items they want and add them to their cart, or they may choose to reorder from their order history. After selecting the items, they can confirm their order. Customers can also track the status of their recent order. Customers can give feedback to restaurants as well. Following are the features of the customer.

1. View Food details
2. Register/Create Account
3. Login
4. Add to cart
5. place order
6. Cancel Order
7. Update Cart
8. Checkout
9. Pay Cash on Delivery
10. Check Food delivery status

• Restaurant

Restaurants want their menu to be visible to the customers and allow them to place orders and update the status of orders. They also have the provision to edit and manage their menu. Restaurants will be able to view feedback provided by customers. Restaurant Vendors can have the following functionality:

1. Create account
2. Login
3. Add Food details
4. Update Food details
5. Delete Food
6. Check food order
7. Update food delivery status
8. Calculate Bills

• Rider

Riders will use the application to view the order and customer information to deliver it to the correct address and contact the customer if required. They will also confirm the delivery status of the customer and block a customer if needed (e.g., did not pay the bill). Following are the functions of Riders:

1. Create account
2. Login
3. View Order
4. Accept or reject delivery order
5. Update food delivery status

6. Cash collection update

- **Admin**

The Admin will validate (physically) the Restaurant and Rider information/documents before permitting them to be a part of the Food on Wheels service. Following are the functions related to Admin mode:

1. Login
2. Manage Vendors
3. Manage Vendors Products/Food
4. Manage Customers
5. Manage Food Order details
6. Manage Payment details
7. Manage Riders