

**COMSATS UNIVERSITY ISLAMABAD**

**WAH CAMPUS**

**ASSIGNMENT 4**

**Department:** Bachelors of Computer Science

**Subject:** Object Oriented Programming

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**Catering Management System**

1. **Introduction**

**Chapter Summary**

This chapter provides a detailed overview of the Catering Management System, including its major features and the primary actors that interact with the system.

* 1. **System Introduction**

The Catering Management System is designed to streamline the process of managing catering services, including menu management, order processing, and user sign-up. The system aims to facilitate efficient operations for catering businesses by providing a centralized platform for handling essential functions.

* 1. **Background of the System**

In the catering industry, we gathered requirements from different catering management systems and we have come to conclusion that some systems are very complex, and we have made a system that is nor to much complex and also fills out the requirements of the management system.

* 1. **Objectives of the System**
* To streamline menu management
* To simplify order processing
* To provide a seamless user sign-up experience
* To enhance overall operational efficiency for catering businesses
  1. **Major Actors**

Major actors are:

* Customer (User)
* Admin (Manager)
  1. **Significance of the System**

The Catering Management System is crucial for catering businesses looking to optimize their operations. It can be used in various application areas, including event management, corporate catering, and personal catering services. The system's ability to integrate multiple functionalities into a single platform makes it a valuable tool for improving productivity and customer satisfaction.

1. **Requirement Specifications**

**Chapter Summary**

This chapter outlines the functional and non-functional requirements of the Catering Management System, including detailed use cases and extended use cases with descriptions.

* 1. **Specific Requirements**
     1. **Functional Requirements**
* Menu Management

Add new menu items

Update existing menu items

Delete menu items

View all menu items

* Order Processing

Create new orders

Update existing orders

Delete orders

View all orders

* User Management

Sign up new users

* 1. **Non-functional Requirements**
     1. **Performance Requirements**
* Any transaction should not take more than 10 seconds.
* The system should support up to 100 concurrent users without performance degradation.
  + 1. **Safety and Security Requirements**
* User data must be encrypted at rest and in transit.
* The system should comply with GDPR regulations.
* Only authenticated users should have access to specific features.
  + 1. **Software Quality Attributes**
* **Reliability**

The system should have an uptime of 99.9%.

* **Portability**

The system should be accessible on various devices, including desktops, tablets, and smartphones.

* **Maintainability**

The codebase should follow standard coding practices to ensure ease of maintenance.

* **Usability**

The user interface should be intuitive and easy to navigate.

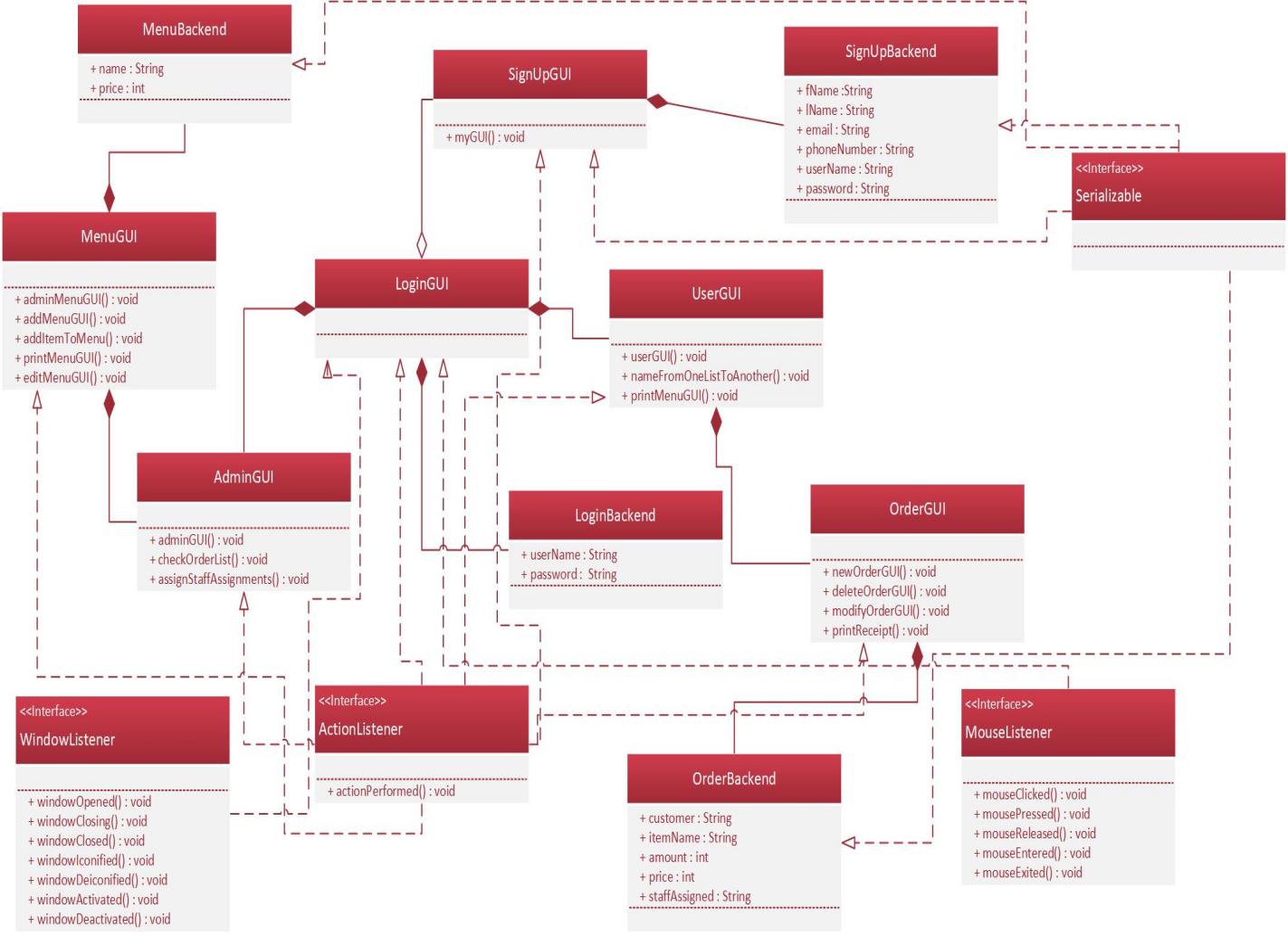
* 1. **Use Cases With Explanation**

**Customer Use Cases:**

1. **Signup:** Customers can create a new account by providing their name, email, phone number, username, and password.
2. **Login:** Existing customers can log in using their username and password
3. **View Menu:** Customers can view the menu with item names and prices.
4. **Place Order:** Customers can create a new order by selecting items from the menu, specifying quantities, and adding them to the order.
5. **Delete Order:** Customers can remove order.
6. **Modify Order:** Customers can change the quantity of an item already added to their order.
7. **Print Receipt:** Customers can view and print a receipt containing their order details and total price.

**Admin Use Cases:**

1. **Login:** Only one Admin can log in using their username and password.
2. **Check Order List:** Admin can check total list of orders by customers.
3. **Assign Staff:** Admin can assign staff to each order so they perform that task(can called as staff assignments)  
   **Add Items to Menu:** Admin can add an item to menu.
4. **DeleteItems to Menu:** Admin can delete an item to menu.
5. **Update Menu:** Admin can Update items of menu
   1. **Class Diagram**

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