

HU – F&B
SE PROJECT

Fadi Faisal Rajab Abukeer:2145367

Dania Omar Hamid Hamad:2137133

Mosab Husam Daoud Elayan:2145354



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"Feed your mind, fuel your day"

Introduction

with the large number of students that increase every year, getting your meals at university has become a serious issue, and as a university, we strive to embrace innovation and embrace the digital age, so we suggested to go for a more convenient way to get your food.

The online ordering food system aligns with our vision of utilizing technology to enhance the student experience. It's a step towards modernization, allowing us to stay ahead of the curve and provide you with the convenience and efficiency you deserve.

we understand that our students, faculty, and staff lead busy lives. Time is a precious resource, and we want to provide you with an efficient way to access delicious and nourishing meals without sacrificing your schedule or settling for less.

No more waiting in long lines or worrying about limited dining hours! With our intuitive platform, you can effortlessly place your order, customize your meal to your liking, and specify your preferred pickup or delivery time, so you can focus on what matters most - your education.

with this online ordering food system you'll have the power to browse through an extensive menu, filled with diverse culinary options, at your fingertips. Whether you're seeking a quick bite between classes or a well-rounded meal to refuel during a study session, our system is designed to cater to your needs and preferences.

USER REQUIREMENTS:

User Registration: Students should be able to create an account by providing their personal information, such as name, student ID, contact details.

Menu Browsing: Students should be able to browse through the available food options offered by different on-campus food vendors. The menu should provide details like item names, descriptions, prices, and any special offers or discounts.

Order Placement: Students should be able to select items from the menu and place their food orders conveniently. The system should allow customization options (e.g., toppings, condiments) and quantity selection.

Order Tracking: Once an order is placed, students should have access to real-time updates on the status of their orders. This can include order confirmation, estimated preparation time, and notifications when the order is ready for pickup or out for delivery.

Payment Options: The system should support various payment methods, such as credit/debit cards, digital wallets, or integration with university meal plans. It should ensure secure and seamless transactions.

Delivery or Pickup Options: The system should offer flexibility for students to choose between delivery to a specified location on campus or pickup from designated food pickup points.

User Reviews and Ratings: Students should have the ability to provide feedback on their food orders and rate the food quality, delivery service, or overall experience. This helps improve the system and provides valuable insights for other users.

Loyalty Programs: The system could incorporate loyalty programs or reward schemes to incentivize frequent usage and provide benefits to students who regularly order food through the platform.

Customer Support: Students should have access to customer support channels, such as chat or email, to address any queries, concerns, or issues related to their orders or the system functionality.

SYSTEM REQUIREMENTS:

User Registration and Authentication:

The system should provide a user registration process to create student accounts.

It should support authentication mechanisms to verify user identity and secure access to user accounts.

Vendor Management:

The system should allow food vendors to register and manage their profiles.

Vendors should have the ability to update their menu, prices, and availability.

Menu Management:

The system should provide an interface for vendors to manage their menu items, including adding, modifying, or removing items.

Vendors should be able to set prices, descriptions, and categorize items.

Order Management:

The system should handle order placement, processing, and fulfillment.

It should keep track of the status of each order, such as received, in preparation, out for delivery, or completed.

Payment Processing:

The system should integrate with payment gateways to securely process customer payments.

It should support multiple payment methods, such as credit/debit cards, digital wallets.

Delivery and Pickup Management:

The system should allow users to select their preferred delivery location or pickup point.

Notifications and Communication:

The system should send notifications to users regarding order confirmation, status updates, or any changes to their orders.

It should facilitate communication between users, vendors, and delivery personnel if needed.

Ratings and Reviews:

The system should enable users to rate and review food vendors and their offerings.

It should aggregate and display average ratings and reviews for vendors.

Reporting and Analytics:

The system should generate reports and analytics for vendors and administrators, including sales reports, popular items, and customer preferences.

It should provide insights to help vendors improve their offerings and make informed business decisions.

Administration and Maintenance:

The system should have an administrative interface for managing user accounts, vendors, menu items, and other system configurations.

It should support system maintenance tasks, such as database backups, software updates, and monitoring.

NON FUNCTIONAL REQUIREMENTS:

Fast Order Retrieval:

The user interface should provide a seamless experience for restaurant workers to retrieve orders placed by students and other users through their mobile phones. The order information should be instantly accessible and displayed clearly to the workers.

Intuitive Approval Process:

The cashier's approval of orders should be straightforward and effortless. A single click on the "Approve" button should confirm the order's payment status, indicating that the order is ready for preparation.

Real-time Electronic Receipts:

Upon approval of an order, the software should generate an electronic receipt for the student or user. The receipt should contain comprehensive information, including the order details, estimated preparation time, queue number, and the name of the cashier who approved the order. The generation and delivery of the receipt should be instantaneous.

Consistent Interface across Devices:

The user interface should be designed to maintain consistency and functionality across various devices, such as desktop computers, tablets, and mobile phones. It should adapt to different screen sizes and resolutions without compromising usability.

Reliable Performance:

The software should exhibit reliable performance, with minimal lag or delay in processing orders, displaying information, and generating receipts. It should handle concurrent user interactions effectively, ensuring smooth operations even during peak hours.

Accessibility and Usability:

The user interface should adhere to accessibility guidelines, ensuring compatibility with assistive technologies for users with disabilities. It should also be designed intuitively, requiring minimal training for the workers to navigate and perform their tasks efficiently.

Secure Transaction Processing:

The software should implement robust security measures to protect users' credit card information during the transaction process. It should adhere to industry-standard encryption protocols and comply with relevant data protection regulations to maintain the confidentiality and integrity of sensitive information.

Documentation and Training:

The system should be well-documented, providing user guides or help resources to assist users in using the system effectively.

Training materials or sessions may be provided to educate vendors and users on system usage and best practices.

Security:

The system should implement robust security measures to protect user data, including personal information and payment details.

It should utilize encryption protocols to ensure secure transmission of data over the network.

The system should have measures in place to prevent unauthorized access or tampering with user accounts or orders.

System architecture:

- The application shall be connected to the network.

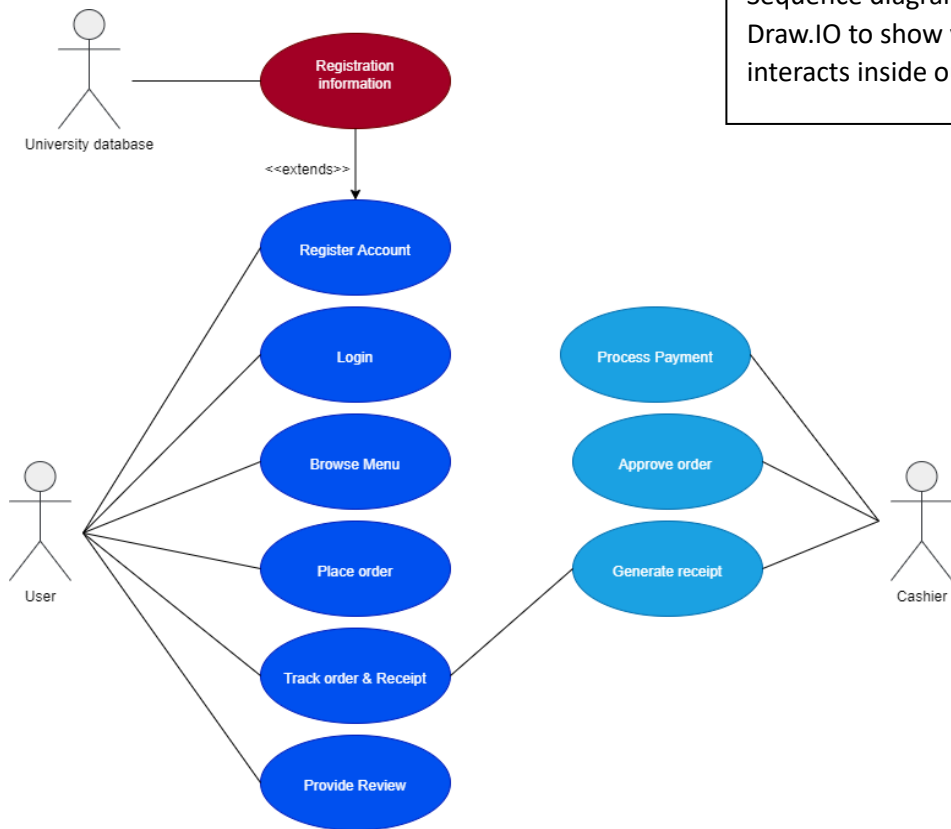
- The software of HU-F&B application works on all modern operating systems.

- there're 2 versions available of the application:

- 1- student and visitors version: this version can be downloaded from phone store it provides each of users with all services they wished to.

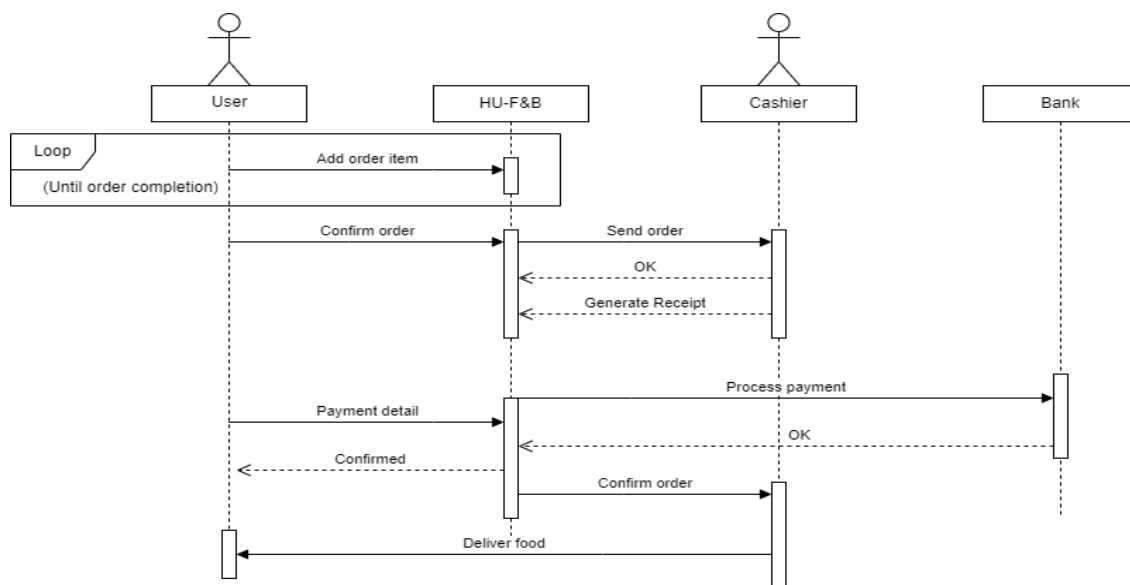
- 2- developer version: this version allows software developers to maintain the application software if they found out any bug on it and they can monitor the application.

USE CASE DIAGRAM:

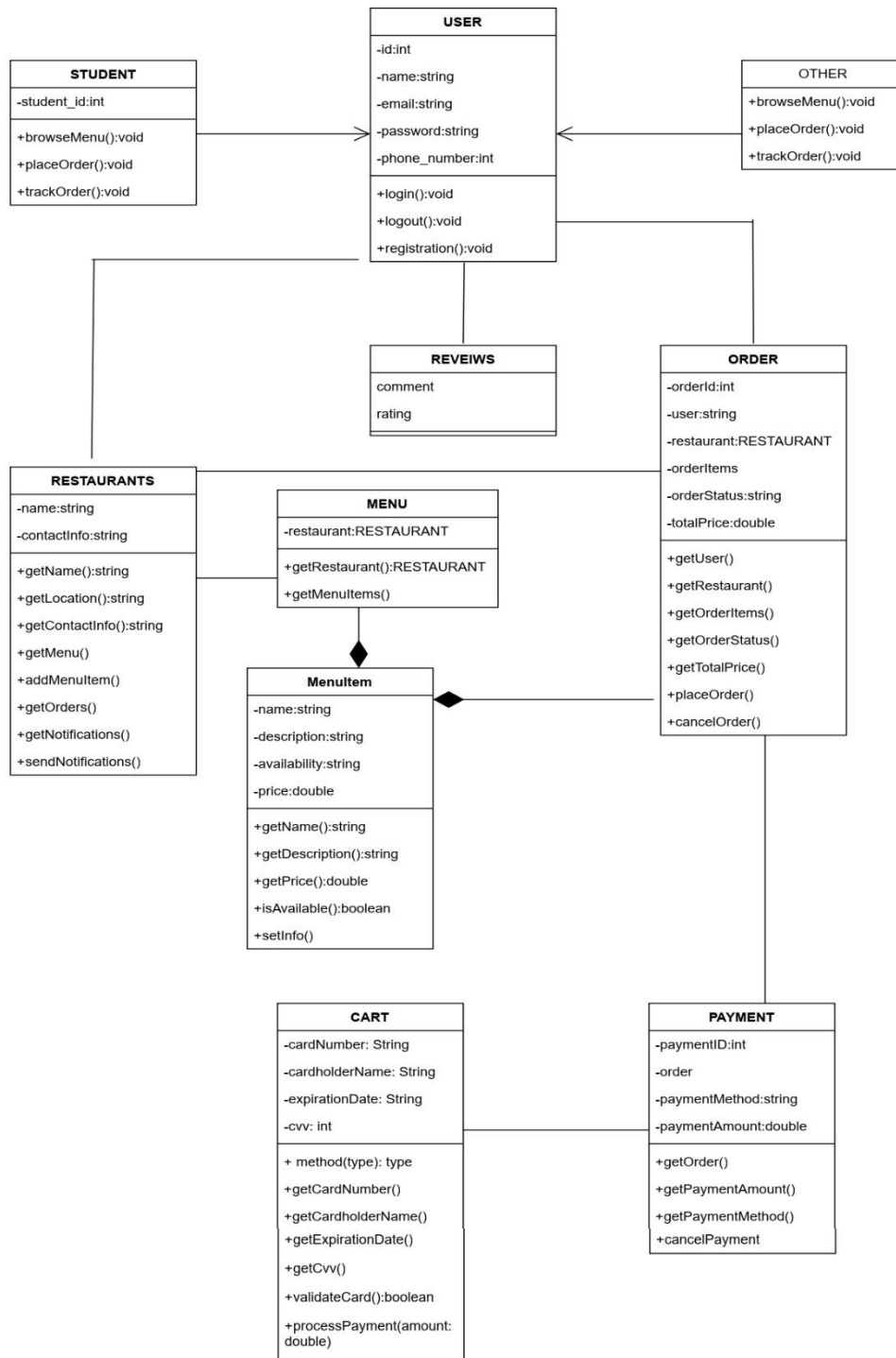


Here is out USE-CASE diagram and Sequence diagram made using Draw.IO to show you how the system interacts inside out.

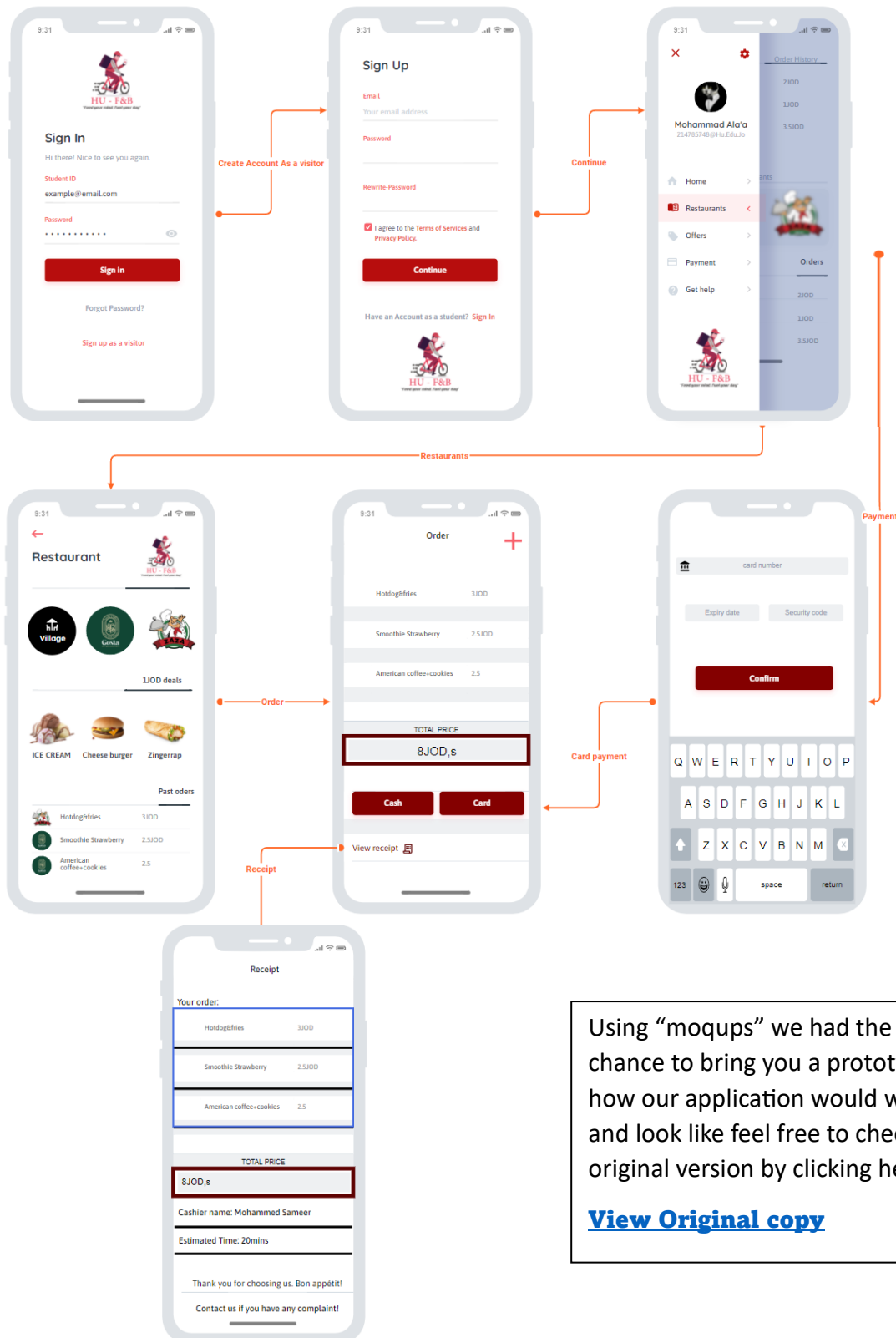
SEQUENCE DIAGRAM:



Class Diagram:



GUI:



Using “moqups” we had the chance to bring you a prototype of how our application would work and look like feel free to check the original version by clicking here:

[View Original copy](#)