



# Institute of Computer Engineering Technology



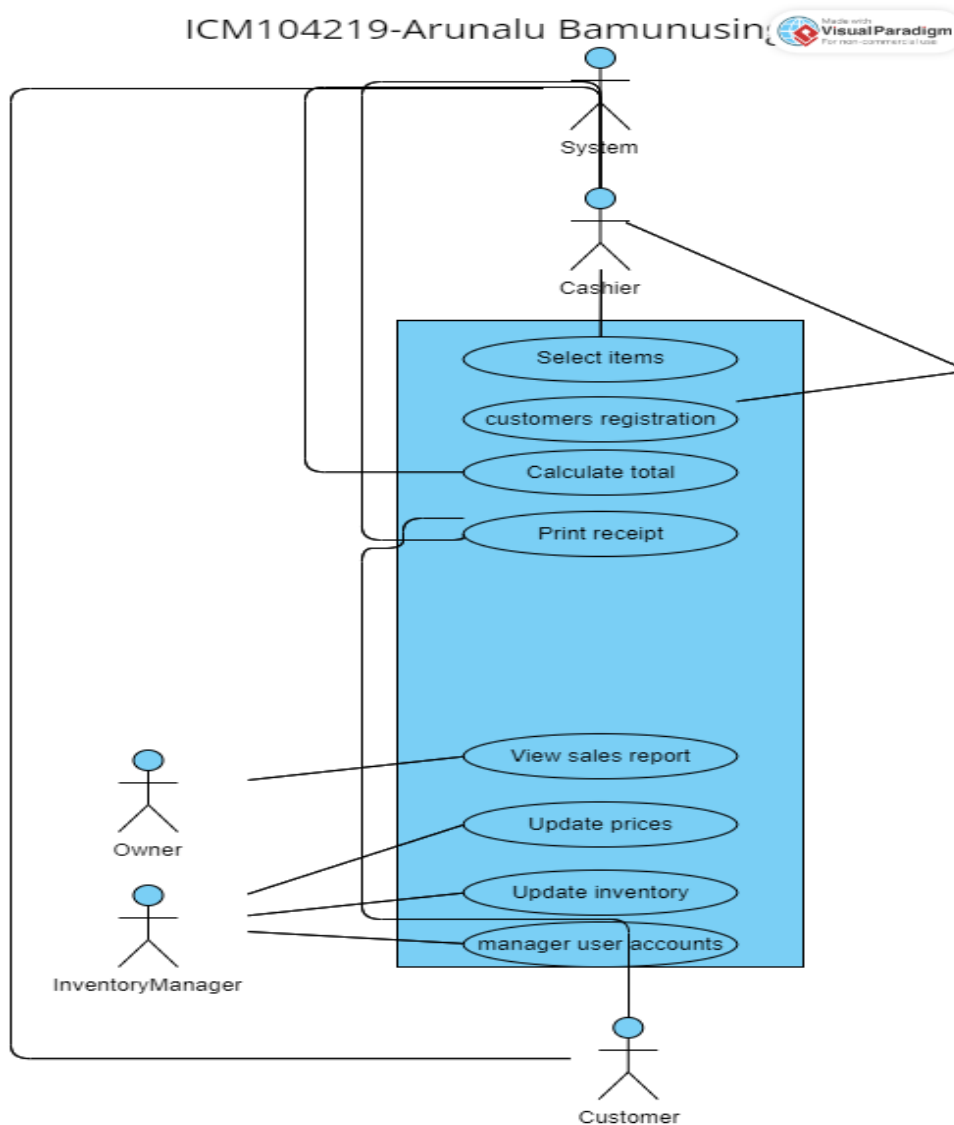
# ASSIGNMENT

Student Name	Sasindu Arunalu Nanayakkara Bamunusinghe
Student ID	ICM104219
Coursework	Internet Technologies
Batch No	ICM104/ICM105
Milestone 01	Project Planning and Analysis
Assignment Date	05th October 2023

### Tasks and Submissions:

- Develop a use case diagram depicting interactions between actors and the system.
- Develop wireframes for the web application to outline basic structure and layout.
- Finalize the prototype design using [Figma/Adobe XD].
- Analyze detailed requirements, including functional and non-functional aspects.
- Document additional research findings on best practices for web development.

## Use Case Diagram



# wireframes for the web application

Mockflow wireframes

<https://wireframepro.mockflow.com/view/M4pcrAwhWpb>

## prototype design

Figma prototype

<https://www.figma.com/file/zNVEYUZfiDWJMAXDAsbXi3/ICET?type=design&node-id=2%3A79&mode=design&t=67LxIwipSlkpmCfm-1>

### **Analyze detailed requirements, including functional and non-functional aspects.**

**Store Management:**

**View Food Items:**

Functional: Display all food items categorically.

Non-Functional: Food item name, price, quantity on hand, expiration dates, unique food item code.

**Update and Delete:**

Functional: Users can update and delete food items.

**Add Items:**

Functionality: Users can add new items to the system.

**Expiration Notification:**

Functional: The system notifies users about expired food items and removes them.

**Order Management:**

**Selecting Food Items:**

Functional: Users can select items by name, item code, or category.

Displayed Information: Price, expiration warning, item code, applicable discount.

#### Cart Display:

Functional: Display selected items in a cart with prices and quantities.

Price Calculation: Unit price multiplied by quantity.

#### Discount Feature:

Functional: Users can add a discount percentage to the entire order.

Calculation:  $\text{Final Amount} = \text{Total} - (\text{Total} \times \text{Discount Percentage})$ .

#### View Previous Orders:

Functional: Users can search by customer ID or Order ID.

Actions: Edit, delete, and update previous order details.

#### Generate Receipt:

Functional: The system generates a PDF receipt after completing an order.

Customer Management:

#### Add Customers:

Functional: Add customers during order placement or through a separate process.

#### Update, Delete, and Edit:

Functional: Users can update, delete, and edit customer details.

#### View Customer Orders:

Functional: Users can view orders under each customer's name.

#### Report Generating:

##### Monthly Sales Report:

Functional: Generate a report on monthly sales.

##### Top Customers:

Functional: View customers with the highest order rates within the month.

##### Annual Sales and Food Items Count:

Functional: Generate annual sales and food items count reports.

## **Document additional research findings on best practices for web development**

### **User Interface (UI) Design:**

Prioritize a clean and intuitive interface for user-friendly navigation.

Implement responsive design to ensure usability across various devices.

### **Security:**

Implement secure authentication mechanisms to protect user data.

Use HTTPS to encrypt data transmission.

### **Database Design:**

opt for a relational database to efficiently manage data relationships.

Employ indexing for faster data retrieval.

### **Scalability:**

Design the system with scalability in mind to accommodate future growth.

Utilize cloud-based services for scalable infrastructure.

### **Testing:**

Conduct thorough testing, including unit testing, integration testing, and user acceptance testing.

Regularly update and test backups to ensure data integrity.

### **Documentation:**

Maintain comprehensive documentation for code, APIs, and system architecture.

Document any third-party libraries or frameworks used.

### **Performance Optimization:**

Optimize code for performance to enhance system responsiveness.

Minimize server load through efficient caching strategies.

### **Compliance:**

Adhere to data protection regulations and industry standards.

Ensure accessibility compliance for users with disabilities.





