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Class- MCA

Subject:- Object Oriented Software Engineering

Assignment No 1

Vishwakarma University, Pune
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MCA113-Mini Project

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Course Code:	**MCA113**
Course Name:	**Mini Project**
Mini Project Title:	**Smart Canteen**

Background :-

- ## Purpose and Goals:

Clearly define the purpose and goals of the smart canteen website project. This could include improving the dining experience, enhancing efficiency in food ordering and delivery, promoting healthy eating habits, reducing food waste, or integrating technology for a seamless user experience.

- ## Target Audience:

Identify the target audience for the smart canteen website. This could include employees in a workplace, students on a campus, or visitors at a public facility. Understanding the needs and preferences of the target audience will help in designing a website that caters to their specific requirements.

- ## Design and User Interface:

Create a visually appealing and user-friendly design for the website. Consider using a modern and clean design with intuitive navigation. Use colors, fonts, and images that align with the branding and overall theme of the smart canteen project

- ## Reducing Food Waste:

The objective could be to implement features that allow users to customize portion sizes, track food availability in real-time, and offer incentives for reducing food waste.

Overview

The main objective of the Project on Canteen Management System is to manage the details of Canteen, Employee, Item, Stock, Sales.

It manages all the information about Canteen, Customer, Sales, and Canteen.

The project is totally built at administrative end and thus only the administrator is guaranteed the access.

The purpose of the project is to build an application program to reduce the manual work for managing the Canteen, Employee, Customer, and Item.

it tracks all the details about the Item, Stock, and Sales

Users Of The System.

Project will consist of the following users.

1. **Admin - Web Panel**
2. **User – Web Panel**

All two users will have their separate dashboard and login info.

Brief Description of user and their features

1. **Admin:**
   - Add / update / delete menu and manage Menu.
   - List Menu's for sale.
   - View purchase requirements from User.
   - Send them products as per the requirements.
   - Get Pre Order From User's.
   - Accept / Reject Pre order's.
   - Generate Po for orders to User's.
   - Customize Terms and Conditions for Pre Order's.

- Record payment against orders.
- Approve product quality.
- View buyers' feedback.
- Manage history of orders.
- Manage history of enquiries.
- Set Canteen profile.
- Mark order as delivered.

2. User :

- Register in system.
- Add / update / delete Menu From Cart.
- Add Pre Order from system.
- View Pre Order Of Menu status.
- Update payment status against order.
- View terms and conditions in order details.
- Add feedback on Menu order.
- Mark Menu Order as received.

Technology And Tools:

o **Eclipse IDE**:

Eclipse is a popular integrated development environment (IDE) for Java development. It provides a range of tools and features to write, debug, and deploy Java applications. Download and install the latest version of Eclipse from the official website.

o **Java Development Kit (JDK):**

Install the JDK on your system, as it is required to write and run Java code.

We can download the JDK from the Oracle website and follow the installation instructions.

- o **MySQL Workbench:**

  MySQL Workbench is a visual tool for database design, development, and administration. It allows you to create and manage databases, tables, and queries.
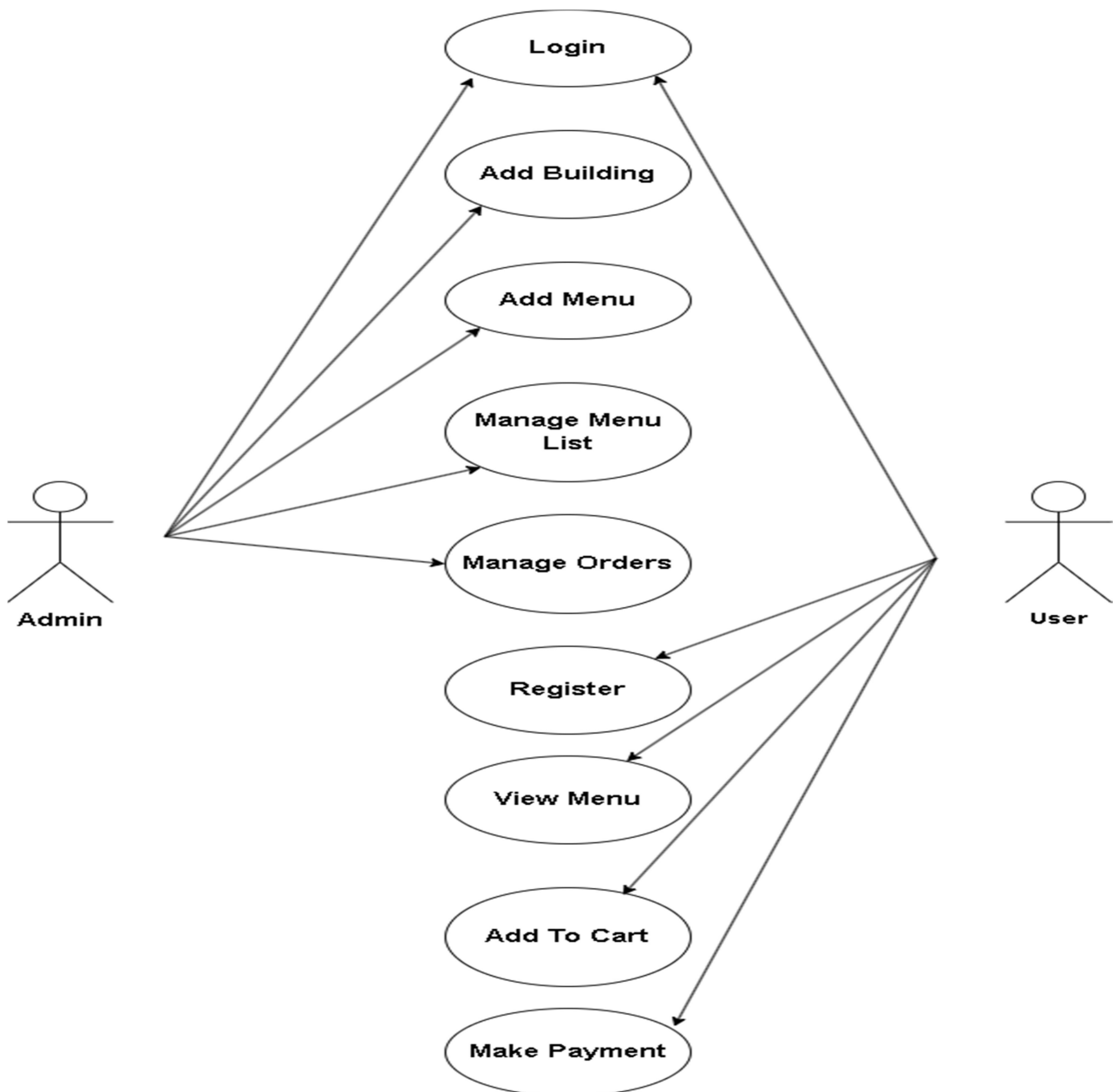
Database -

1. **MySQL**

Design Tables and Fields:

Based on the identified entities and attributes, create tables in the database to store the data. Each table represents an entity, and each column represents an attribute. Define appropriate data types and constraints for each field.

For example, you might have tables like:

- **Customers** (customer_id, name, contact_info, loyalty_points, ...)
- **Menu_Items** (item_id, name, description, price, ingredients, ...)
- **Orders** (order_id, customer_id, order_date, total_amount, ...)
- **Employees** (employee_id, name, position, contact_info, shift_details,)
- **Suppliers** (supplier_id, name, contact_info, delivery_schedule, ...)
- **Transactions** (transaction_id, order_id, payment_method, amount, ...)

Use Case Diagram:-

Use Case Diagram For Smart Canteen

Scope of Work (to be done by the student independently):-

- **Requirements Gathering:**

  This involves understanding the specific needs and goals of the canteen, including features, functionalities, and user requirements for the website.

- **Design and User Interface:**

  Creating an appealing and user-friendly design for the website, including wire framing, prototyping, and visual design.

- **Menu Management:**

  Developing a system to manage and update the menu items, including categories, descriptions, prices, and availability.

- **Ordering and Payment:**

  Implementing an online ordering system that allows users to select items, customize orders, and make payments securely.

- **Admin Dashboard:**

  Developing an admin dashboard to manage orders, update menus, track inventory, and generate reports.

- **Real-time Updates:**

  Providing real-time updates on order status, availability of items, and estimated delivery times.

- **Feedback and Reviews:**

  Incorporating a feedback and review system to allow users to provide feedback on their experience and rate the food and service.

- **Mobile Responsiveness:**

  Ensuring that the website is responsive and optimized for mobile devices to provide a seamless experience for users on different devices.

- **Security and Privacy:**

Implementing security measures to protect user data, including encryption, secure login, and compliance with data protection regulations.

Specification Time

Specification:

This project will take 120 days from the date of advance payment received. Distribution of total time period is as below

- 110 Days For Development Phase
- 10 Days For Testing on actual server and user side testing

For every 15 days module presentation and progress meeting will be carried on virtual meeting platforms. In case of change in requirements this time period can be changed and final time will be decided depending on changed requirements

Services Included:

1. Total development and testing cost.
2. Domain for the Six Month
3. 2 Months of extended after delivery debugging.
4. Hosting for one year limited to 3 GB
5. After deployment support for 1 year.

Services Excluded:

1. Other third party service charges
2. Any hardware requirements.