CSA4001-MANAGEMENT INFORMATION SYSTEM FOR DATA OPTIMIZATION

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5) Draw a UML diagram for a food ordering system Systems. The activities of the food ordering system are listed below. Receive the Customer food orders, Produce the customer ordered food, Serve the customer with their ordered food, collect payment from Customers, Store customer payment details, Order Raw Materials for food products, Pay for Raw Materials and Pay for Labour.

Aim:

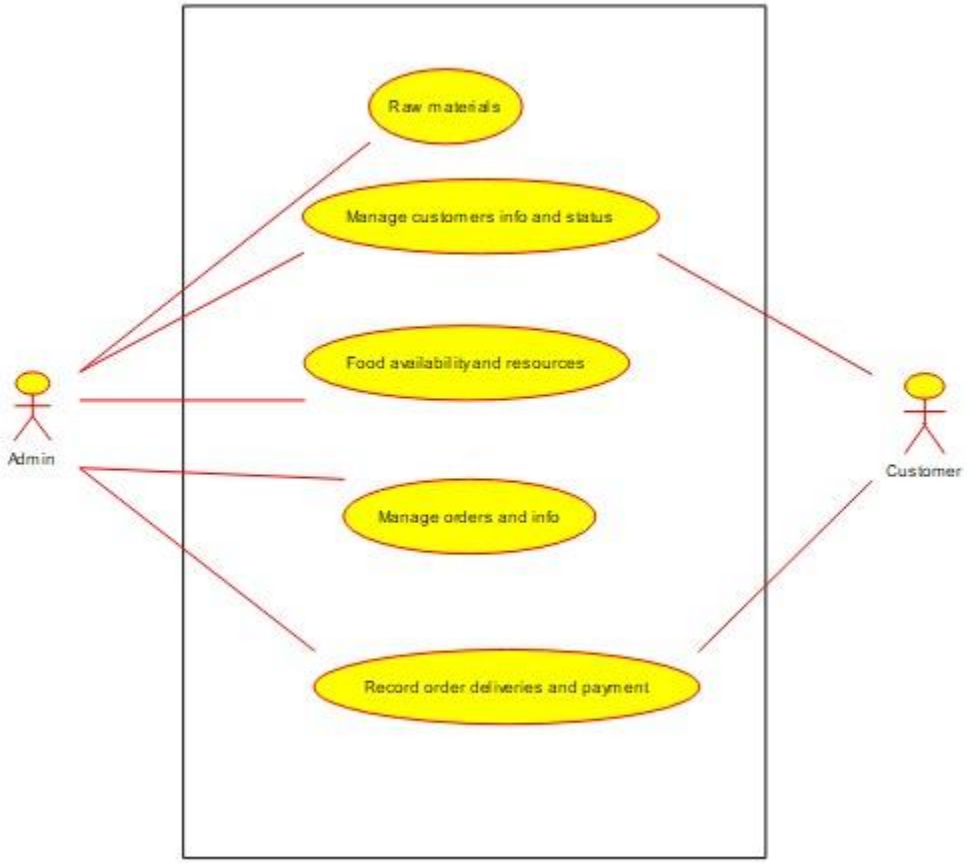
To design a UML Use Case Diagram for a Food Ordering System**,** illustrating interactions between customers, staff, and suppliers while depicting food order processing, payment, and inventory management.

Procedure:

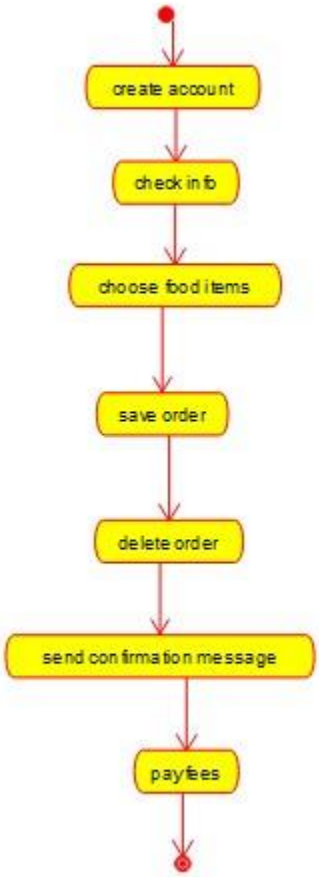
1. Identify the actors: Customer, Chef, Cashier, Supplier, and Manager.
2. Identify key use cases: Receive Order, Prepare Food, Serve Food, Collect Payment, Store Payment Details, Order Raw Materials, Pay for Raw Materials, Pay for Labour.
3. Define relationships: Customers interact with ordering and payment, Chefs prepare food, Cashiers handle payments, Managers oversee raw material orders and labour payments.
4. Draw the system boundary: Label it Food Ordering System, placing actors outside and use cases inside.
5. Connect actors to use cases: Use association lines to show interactions between actors and system functions.
6. Use "include" and "extend" relationships: For example, "Store Payment Details" is included in "Collect Payment."
7. Verify correctness: Ensure all functionalities and dependencies are represented accurately.

Output:

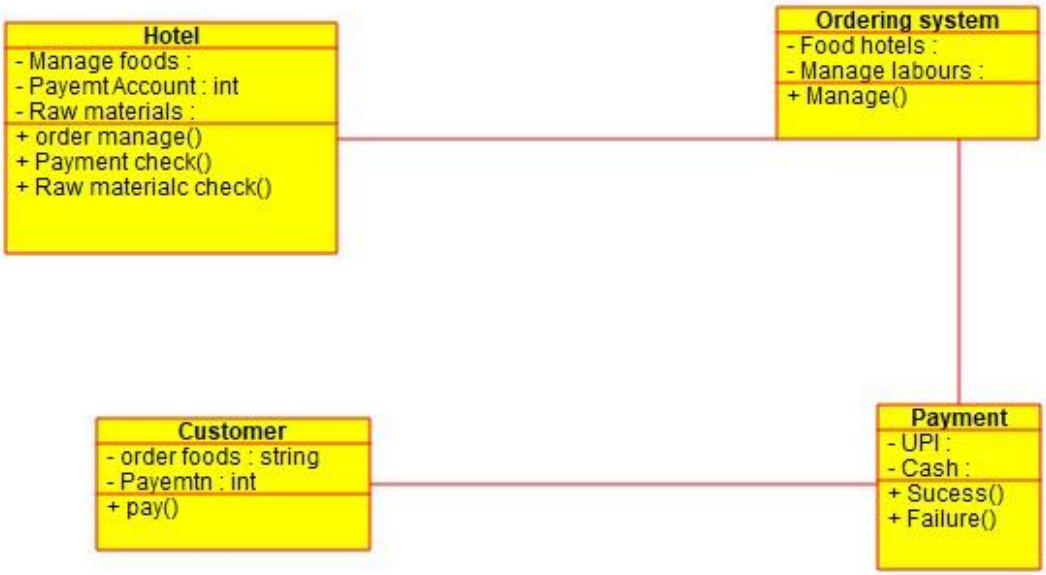
Use case diagram:



Activity diagram:

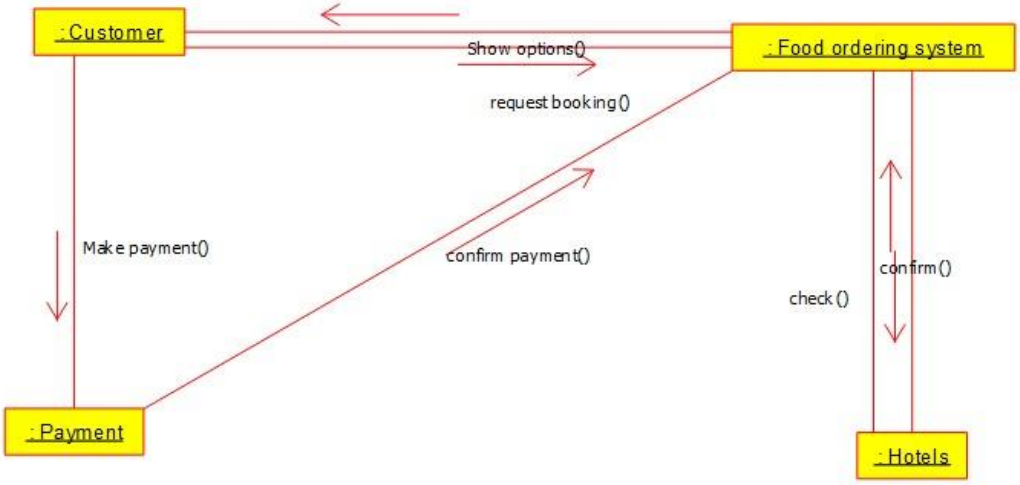


Class diagram:

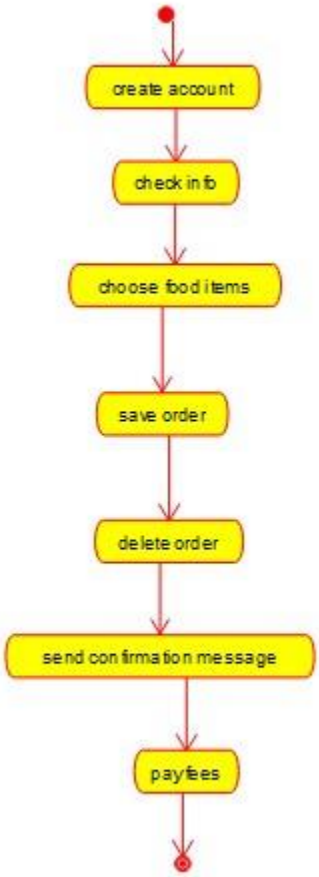


Sequence diagram:

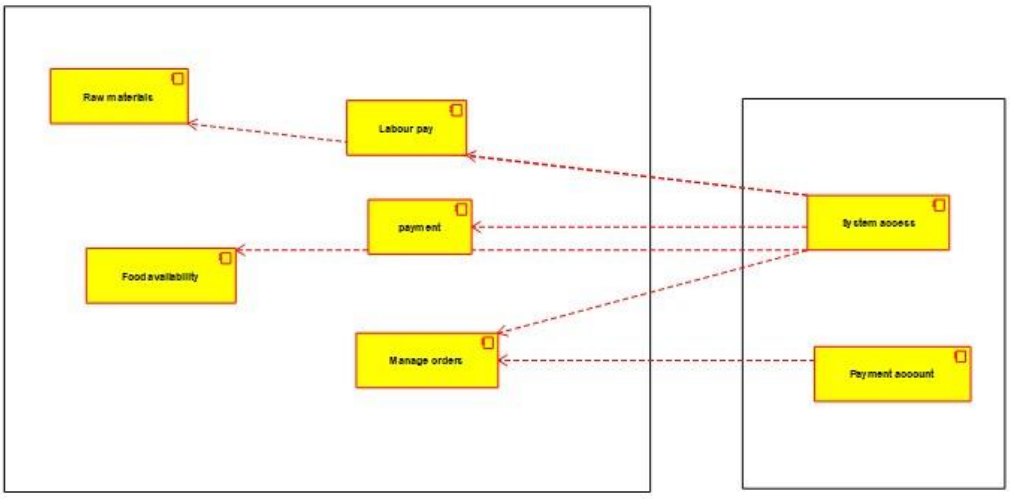
Communication diagram:



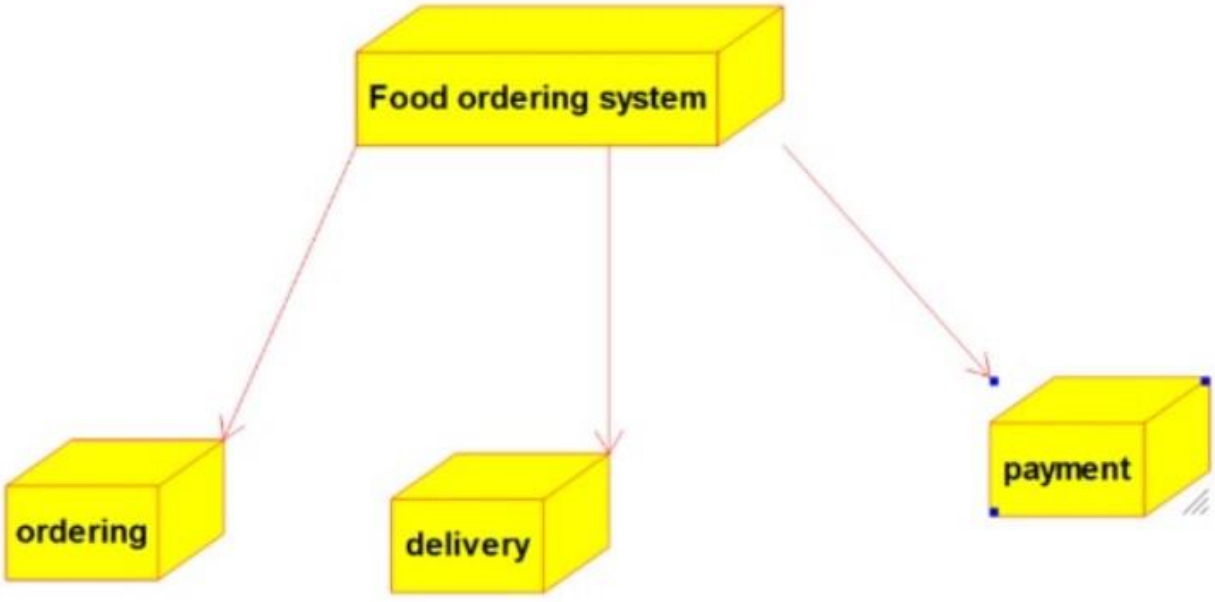
State diagram:



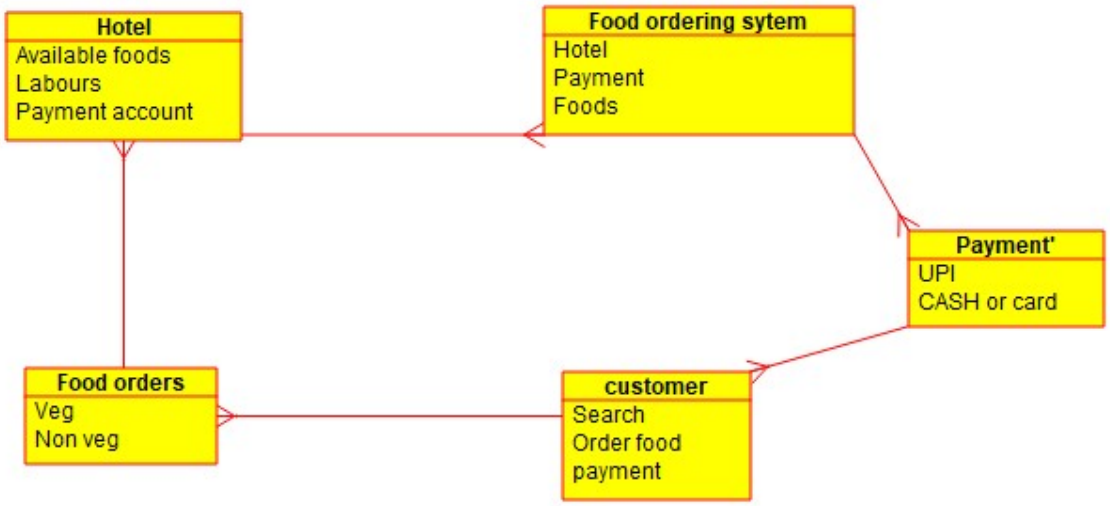
Component diagram:



Deployment diagram:



Entity relationship diagram:



Result:

The UML Diagram effectively models the Food Ordering System, showing the interactions of customers, restaurant staff, and suppliers. It clearly represents the sequence of ordering, food preparation, service, and payments, ensuring a structured workflow for managing food orders and business operations.