**Use Case Diagrams**

**Definition**: Use case diagrams visually represent the interactions between actors and the system in this case, the fast food restaurant) through various use cases.

1. **Actors**:
   * **Customer**: Orders food, pays, provides feedback.
   * **Cashier**: Takes orders, processes payments, and serves food.
   * **Kitchen Staff**: Prepares food items based on orders.
   * **Manager**: Oversees operations, handles inventory, and addresses customer complaints.
2. **Use Cases**:
   * **Order Food**: Customer selects items from the menu and places an order.
   * **Make Payment**: Customer pays for the order using cash, card, or mobile payment.
   * **Prepare Food**: Kitchen staff prepares the ordered items.
   * **Serve Food**: Cashier serves the food to the customer.
   * **Provide Feedback**: Customer provides feedback or rates the service.
3. **Relationships**:
   * **Associations**: Lines connecting actors to their use cases (e.g., Customer to Order Food).
   * **Includes**: Use cases that are common across multiple scenarios (e.g., Make Payment included in Order Food).
   * **Extends**: Optional use cases that enhance the primary use case (e.g., Provide Feedback after Serve Food).

**Sequence Diagrams**

**Definition**: Sequence diagrams illustrate the order of interactions between actors and the system over time for specific scenarios.

**Key Components**:

1. **Lifelines**: Vertical dashed lines representing each actor (Customer, Cashier, and Kitchen Staff).
2. **Activation Boxes**: Rectangles along lifelines indicating the time an actor is active in the process.
3. **Messages**: Horizontal arrows showing the interactions or messages exchanged between actors.

**Example Sequence Diagram for Ordering Process**:

1. **Customer** initiates the process by selecting an item and sending a message to the **Cashier** with the order details.
2. **Cashier** acknowledges the order and sends a message to the **Kitchen Staff** to prepare the ordered items.
3. **Kitchen Staff** prepares the food and sends a message back to the **Cashier** indicating the order is ready.
4. **Cashier** processes payment by sending a message to the **Customer** for payment confirmation.
5. **Customer** confirms payment, and then **Cashier** serves the food and thanks the **Customer**.

**Conclusion**

Both use case and sequence diagrams provide valuable insights into the operations of a fast food restaurant.