# Question 2

## Part 1

**Actors**

1. Manager

Modify the state of the system, for example number of tables. Can view statistical data. The manager is allowed to perform any operation.

1. Waiter

Can assign customers to a table, and create and alter an order. Is allowed to take payment, and serve ready orders. Can alter the order's state, for example mark it as served.

1. Station worker (for example, bartender)

Receives dish orders and makes the dishes. Can alter the dishes state, for example mark the dish as ready.

**Use cases**

1. Seat new customers:

When customers arrive, a waiter assigns the customers to a table and records relevant information.

1. Take order:

A waiter creates a new order in the system. Order dish tasks are sent to the relevant stations.

1. Change order:

A waiter alters an existing order in the system that isn't marked as delivered. The relevant stations are notified.

1. Cancel order

A waiter cancels an existing order in the system that isn't marked as delivered. The relevant stations are notified and records relevant information.

1. Prepare dish

A station worker receives an order dish task. Mark the dish task as being prepared and prepare it. Once ready mark the dish task as ready.

1. Supply order

Once an order is marked as ready, the waiter delivers the order to the table and marks it as delivered and records relevant information.

1. Finish meal

When the customers have finished the meal, the waiter supplies the receipt and records relevant information.

1. Take payment

When the customers are ready to pay, the waiter takes payment and records relevant information.

1. Get statistical data

The manager queries the statistical data. The data is extracted from the system logs, analyzed, and returned to the manager.

1. Modify system state

The manager modifies the system state.

## Part 2

### Take order use case

**Actors**: waiters, station workers

**Goal description**: The customer's order is added to the system.

**Reference to requirement document**: 2.d

**Preconditions**: The customers are seated at a table.

**Description**:

1. The waiter gets the order from each customer.
2. Waiter creates an order, and adds all the dishes.
3. The system initializes all dishes
   1. Marks them all as not ready
   2. Alerts the stations
4. System updates analytics DB

**Postcondition**:

Success – The order was added and recorded

Failure – No order was added

**Variations**: None

**Exceptions**:

1. Network failure: failure
2. Power cut: failure
3. Waiter/client have heart attack: failure

### Payment analytics use case

**Actors**: manager

**Goal description**: Create analytical report on payment method and amounts for manager

**Reference to requirement document**: 2.k

**Preconditions**: Manager is logged in.

**Description**:

1. Manager queries analytics DB
2. The system gathers the information
3. The system creates the report
4. The system displays the report for the manager

**Postcondition**: None

**Variations**: No relevant data - success

**Exceptions**:

1. Network failure: failure
2. Power cut: failure

## Part 3

