שאלה 1

# Functional Requirements

## Adding an order

* + 1. A person placing an order (henceforth called the End-user) shall enter the following information into the system, about the desired order:
       1. End-user's name
       2. Desired meal
       3. Date range of the order (can be a single date)
       4. Order type – one of the following:
          1. Shipping order –an address to which the order shall be delivered to.
          2. Sit & Eat order – the End-user shall receive and consume the order inside the restaurant
       5. Shipping address - if the order type is ‎1.1.1.4.1
       6. Pay method – one of the following:
          1. Cash
          2. Credit card
          3. End-user's company
    2. When the End-user instructs the system to complete the order:
       1. If the order pay method is ‎1.1.1.6.1, then the system shall perform the following actions:
          1. If the order type is ‎1.1.1.4.2, then:

The system shall verify that enough tables are available at the desired End-user date (‎1.1.1.3)

If there are enough tables available, then the system shall add the order information to its database, and assign an order-id to the order

If there are not enough tables available, then the system shall notify the End-user

The system shall verify that the order is valid, as per ‎1.11

* + - 1. If the order pay method is ‎1.1.1.6.2, then the system shall complete the transaction
         1. If the transaction cannot be completed, the system shall notify the End-user
      2. When the transaction is completed, the system shall perform the actions from ‎‎‎1.1.2.1.1.1 (including) to ‎1.1.2.1.1.2 (including)
      3. If the order pay method is ‎1.1.1.6.3, then the system shall verify that:
         1. The company exists
         2. The End-user's name exists in the company
      4. If at least one of the conditions {‎1.1.2.3.1, ‎1.1.2.3.2} fails, then the system shall notify the End-user
      5. If both conditions {‎1.1.2.3.1, ‎1.1.2.3.2} pass, then the system shall perform the actions from ‎‎‎1.1.2.1.1.1 (including) to ‎1.1.2.1.1.2 (including)
    1. When the system assigns an order-id to an order, it shall notify the End-user who placed the order, and display the order-id

## Removing an order

* + 1. An End-user shall enter the following information into the system, about the desired order:
       1. End-user's name
       2. Order-id
    2. If an order with this information exists in the system, then the system shall perform the following actions:
       1. If the order pay method is ‎1.1.1.6.2, then the system shall cancel the transaction
       2. The system shall remove the order from its database
       3. The system shall notify the user

## Editing an order

* + 1. An End-user shall enter the following information into the system, about the desired order:
       1. Order-id
       2. End-user's name
    2. If an order with this information exists in the system, then the system shall allow the End-user to change the following information about the order:

1. ‎1.1.1.2
2. ‎1.1.1.3
3. ‎1.1.1.4
4. ‎1.1.1.5
5. ‎1.1.1.6
   * 1. When the End-user instructs the system to complete the order:
        1. If the order pay method was changed by the End-user:
           1. If the order pay method was ‎1.1.1.6.2, before the change, then the system shall cancel the transaction
        2. The system shall perform the actions from ‎1.1.2.1 (including) to ‎1.1.3 (excluding)

## Changing company employee list

* + 1. A human resource person (henceforth called the HR-user) shall enter the following login information into the system:
       1. Company name
       2. Company password
    2. The system shall verify this login information and perform the following actions:
       1. If the login information is correct, then the system shall display a list of End-users which are authorized to pay for orders via ‎1.1.1.6.3
          1. The system shall allow the HR-user to add and remove entries from this list
       2. If the login information is incorrect, then the system shall notify the HR-user

## Displaying and editing Sit & Eat orders

* + 1. A waiter who works at the restaurant (henceforth called the Waiter) shall enter the following login information into the system:
       1. Waiter's name
       2. Waiter's password
    2. The system shall verify this login information and perform the following actions:
       1. If the login information is correct, then the system shall display a list of orders that are booked to the current date
          1. The system shall allow the Waiter to remove orders which are payed for via ‎1.1.1.6.1, from the system
          2. If the system detects that there are currently available tables at the restaurant, and that there is a surplus of raw food ingredients, then the system shall allow the Waiter to add orders (as per ‎1.1) with the following changes:

The order type (‎1.1.1.4) must be ‎1.1.1.4.2

The End-user's name shall be the Waiter name

* + - 1. If the login information is incorrect, then the system shall notify the Waiter

## Adding a VIP order

A VIP-user is an End-user who is allowed by the Admin (‎1.10) to add, remove and edit orders for multiple End-users at once, under a single order.

* + 1. A VIP-user shall enter the following login information into the system:
       1. VIP-user's name
       2. VIP-user's password
    2. If the login information is correct, then the system shall allow the VIP-user to add multiple orders (as per ‎1.1) with the following changes:
       1. All the following fields must be identical for all the orders:

1. ‎1.1.1.3
2. ‎1.1.1.4
3. ‎1.1.1.5
4. ‎1.1.1.6
   * + 1. The system shall add the VIP-user's name to all the orders
     1. If the login information is incorrect, then the system shall notify the VIP-user

## Removing a VIP order

* + 1. A VIP-user shall enter the following login information into the system:
       1. VIP-user's name
       2. VIP-user's password
    2. If the login information is correct, then the system shall allow the VIP-user to remove orders from the VIP order
    3. the login information is incorrect, then the system shall notify the VIP-user

## Editing a VIP order

* + 1. A VIP-user shall enter the following login information into the system:
       1. VIP-user's name
       2. VIP-user's password
    2. If the login information is correct, then the system shall allow the VIP-user to edit orders from the VIP order
    3. the login information is incorrect, then the system shall notify the VIP-user

## Displaying and editing companies

* + 1. The system administrator (henceforth called the Admin) shall enter the following login information into the system:
       1. Master password
    2. The system shall verify this login information:
       1. If the login information is incorrect, then the system shall notify the Admin
       2. If the login information is correct, then the system shall perform the following actions:
          1. The system shall display a list of the companies, and their respective HR-users
          2. The system shall allow the Admin to add companies to this list
          3. The system shall allow the Admin to remove companies from this list
          4. The system shall allow the Admin to add HR-users to companies in this list
          5. The system shall allow the Admin to remove HR-users from companies in this list

## Displaying and editing VIP-users

* + 1. The Admin shall enter the following login information into the system:
       1. Master password
    2. The system shall verify this login information:
       1. If the login information is incorrect, then the system shall notify the Admin
       2. If the login information is correct, then the system shall perform the following actions:
          1. The system shall display a list of the VIP-users
          2. The system shall allow the Admin to add VIP-users to this list
          3. The system shall allow the Admin to remove VIP-users from this list

## Displaying and editing valid orders rules

* + 1. The Admin shall enter the following login information into the system:
       1. Master password
    2. The system shall verify this login information:
       1. If the login information is incorrect, then the system shall notify the Admin
       2. If the login information is correct, then the system shall perform the following actions:
          1. The system shall display the minimum time before an order date, in which an End-user can add an order with that date, e.g. if this minimum time is one day, then last date which an End-user is able to add an order for date 9.9.2009 is 8.9.2009
          2. The system shall allow the Admin to modify this minimum time

## Displaying reports

* + 1. The Admin shall enter the following login information into the system:
       1. Master password
    2. The system shall verify this login information:
       1. If the login information is incorrect, then the system shall notify the Admin
          1. If the login information is correct, then the system shall display statistical information about the following:
          2. Number of orders per End-user (‎1.1.1.1)
          3. Number of orders with per desired meal (‎1.1.1.2)
          4. Number of orders per date (‎1.1.1.3)
          5. Number of orders per order type (‎1.1.1.4)
          6. Number of orders per pay method (‎1.1.1.6)
          7. Number of Sit & Eat (‎1.1.1.4.2) orders per date
          8. Number of completed Sit & Eat (‎1.1.1.4.2) orders, i.e. orders that were removed as per ‎1.5.2.1.1
          9. Number of Sit & Eat (‎1.1.1.4.2) orders which were not added due to unavailable tables, i.e. orders that were not added as per ‎1.1.2.1.1.1.2

## Sending reports

* + 1. For each company, the system shall send the following reports at the end of each month, to each HR-user of that company:
       1. A report containing a list of all the orders which were payed off via that company (‎1.1.1.6.3)
       2. A report containing a list of all the Sit & Eat (‎1.1.1.4.2) orders which were payed off via that company (‎1.1.1.6.3) and were not completed, i.e. orders that were not removed as per ‎1.5.2.1.1

# Assumptions

## General

* + 1. We assume the system will have a server and multiple clients. The communication between the server and the clients will be via the Internet

## Users classification

* + 1. We assume that only special users will need to enter some login credentials, i.e. End-users will not need to enter any login credentials

שאלה 2