Group X

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Software Requirements

Smart Restaurant System

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## System Objective

In this project, we are developing a software that can improve the accuracy and efficiency of services in a restaurant. By providing interconnected interfaces to servers and chefs in the restaurant, the system can reduce delays and the number of errors during services, which can improve customer satisfaction.

## Domain Analysis

The participants of activities in a restaurant can be categorized into Server, Chef and customer.

 

The relationships among different participants are shown as follows:

 

Here is the sequence of events for serving a customer:





Here is the sequence of events for a chef to prepare meal:



## System Architecture

From the information above, we will design a software system that allows the server to create orders on a hand-held device and transmitted to the chef. The chef can notify the server when orders are ready. The system architecture is shown below:



## Use Cases

The system can achieve the following use cases from the server’s and the chef’s perspectives:



## Software Requirements

### R1: ServerUI

* R1.1: The server should be able to place an order for each table on his UI
  + R1.1.1: The server should be able to select food items from a menu
  + R1.1.2: The server should be able to deselect food items from selected item list
  + R1.1.3: The server should be able to create an order for selected table
* R1.2: The server should be able to modify an order for each table
* R1.3: The server should be able to receive messages from the chef

### R2: ChefUI

* R2.1
  + R2.1.1
  + R2.1.2
* R2.2

### R3: OrderDB

### R4: OrderProcessor