Gourmet Restaurant Management Systems

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Team Members

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Overview

Our client Marthinus Ferreira is requesting the implementation of custom tailored restaurant software management system to run on a PC server (or on cloud computing service) for his restaurant *DW Eleven*.
The system runs a back-end service which manages all the essential databases, e.g., recipes for dishes, customers and customer orders, stocks of ingredients for the dishes, employees - part-time and full-time hired waiters/waitresses, managers, suppliers of stocks, etc. The front-end services feature interfaces for interacting with the management systems.

Goals

Customers:
Customers can make orders and reservations to be picked up for take-away, dine-in, home delivery, etc. A unique feature of the gourmet restaurant is that orders may include special request to modify the content of the dish, e.g., no-salt, no-sugar, etc. The possible devices for interacting with the system include PCs (desktops), Laptops, tablets, mobile-phones, etc.
Restaurant Manager:
The manager interacts with the system to manage:

1) Stock Inventory
2) Recipe/Menu planning
3) Reservations
4) Dish/Food costs
5) Customer database
6) Track delivery

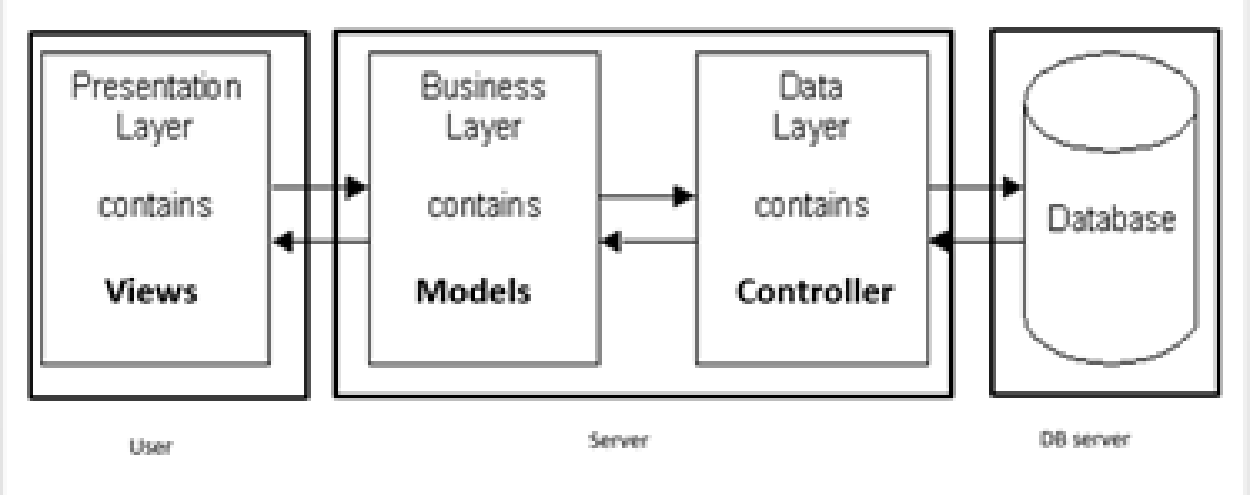
7) Accounting/Financial Administration
8) Waiters'/Waitresses' duties, off-days, leaves, etc.
9) Generation of reports - Analytics
10) Special events

Development Cycle choice

Our team will be implementing the agile development cycle. Upon further investigations to see the fitting development for our system, the Rapid Application Development (RAD) and Dynamic Systems Development Method (DSDM) were not fitting team, we decided to use the SCRUM approach as our team is comprised of 4 members and easily assigning the group leader as the scrum master who will be responsible for setting the sprint dates. The project will be completed using incremental loads instead of implementing it all at once, hence, SCRUM also taking into account philosophies from LEAN and Kanban, but fundamentally sticking to SCRUM.

System Architecture

Hardware Software architecture



The team will be using a three tier system architecture. All of the software that will be interacting with the system will be listed on the front-back end section.

Front end services for the system

- Nodejs
- Reactjs
- Ionicjs
- Electronjs
- scss/css3
- HTML5

Back end services for the system

- Php
- Mysql
- mongoDB
- graphQL
- Apache Web Server

Supporting tools for the system

- Google Maps API (for Maps and location)
- Facebook/twitter/Instagram APIs (for social media integration)