**Software Engineering**

**Technical Specification**

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6/11/2023

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**Good analysis. For the technical specs i would dive a little more into implementations for the classes and functions. Basically spell them out. What will you need and how will it function.**

**- Dr. Matthew Millar**

**Implementation plan**

The base classes of this project would be easily handled by one person in less than a week.

Database design: this should have 1-2 people setting up the four databases - users, ingredients, food, and tables. This would take about one to two weeks depending on complexity.

Programming: one to two people must implement the logic and database handling. Tacking one to two weeks.

Testing: one or two people taking one week.

**Classes and functions**

The front service module should have functions to greet customers, check table availability, and add them to a waiting list if necessary. It should also allow customers to make table reservations in advance.

The server module should have functions to take customer orders, send them to the back kitchen, and deliver the prepared meals to the appropriate tables. Additionally, the servers should have the ability to mark tables as clean and available for new customers once the current customers have finished their meals.

The back kitchen module should receive orders from the server module and have functions to prepare the meals, manage inventory, and clean the cooking area after use.

The customer module should allow customers to view restaurant availability, make table reservations, and walk in and speak with the front service staff. It should also allow customers to view their order status and receive notifications when their orders are ready.

**Database**

The user's database should store information about both customers and staff. For customers, it should store their name, contact details, and reservation status, as well as any other relevant information. For staff, it should store their name, job title, contact details, and login credentials.

The ingredients database should store information about the various ingredients used in the restaurant's recipes, such as their name, quantity, and supplier.

The food database should store the restaurant's menu, including each item's name, description, price, and ingredients. It should also include information on any special dietary requirements or restrictions for each dish.

The table's database should store information on the restaurant's table layout, including the number and size of tables, as well as their availability and status (e.g. occupied, reserved, or available).

Overall, the program should provide an integrated system for managing restaurant operations, from customer arrival to payment and employee management.