

Group Assignment 1

Problem Statement (version 1)

PROBLEM: **Mini-restaurant management system**

GROUP MEMBERS:

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PROBLEM STATEMENT:

“Quán chè vỉa hè” is a mini-restaurant in Ho Chi Minh City that actually has more than what its name implies. The restaurant now serves different kinds of food and beverages, including “bún bò” and boba milk tea. The restaurant wants to improve their service through management system that has a following features:

- Managing dishes, recipes, and ingredients:
 - The owner and the chef de cuisine of the restaurant is in charge of managing the dishes that the restaurant has, their recipes, and the ingredients needed to make them.
 - New dishes can be added to the system. Added dishes can be updated or removed from the system. Each dish must have a name and corresponding ingredients and price specified. Each dish can have their subtypes (e.g. “Phở” can be “Phở tái”, “Phở nạm”), whose prices can be different from each other. Recipe for each of the dish can also be saved so that new chefs can have something to refer to. Photos of the dishes can also be added so as to be shown to the customers.
 - New ingredients can be added to the system. Added ingredients can be updated or removed from the system. Each ingredient must have a name and the current amount in the pantry (abundant, just enough, nearly out, or none left).
 - The owner and chef de cuisine can view what ingredient is in low supply and restock. Report of the money spent on restocking ingredients must be filed to the system.

- Recording customers' orders:
 - Some employees will be assigned with the task of taking customers' orders. The orders are recorded using an application running on a tablet. Recorded orders are sent to the kitchen and saved to the system.
 - Each orders will contain a list of dishes that the restaurant has to offer. Employees can also note what the customers specifically want on the order (e.g. parboil the herbs). Table number are also recorded in the order so that dishes can be delivered to the customers. Dishes that don't have enough ingredients left to be made should be indicated in the application.
 - The system can export a bill ready to be printed and handed to the customers after they are finished with the food.
- Managing dishes in the kitchen:
 - The kitchen will notify the employees when dishes for a table are done so that they can deliver them to the customers.
 - If there are not enough ingredients to make a dish, the kitchen must mark the dish as unavailable.
 - If the kitchen must also update the current status of ingredients in the pantry (the remaining amount) so that the restaurant can restock whenever needed.
 - Any chef can view recipes saved in the system.
- Forming a daily/weekly/monthly report on the restaurant's incomes and expenses:
 - Daily/weekly/monthly incomes (calculated from the orders) and expenses (money spent for ingredients, etc. that are inputted to the system manually) can be calculated and exported to a report.