# Database Management Systems- Project Proposal

# Title: Foodie Palace

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## Description:

The system for managing the restaurant industry is called a restaurant management system. This management system is designed for the Foodie Palace restaurant wherein it can be used by employees in a restaurant to handle customers, their orders, payments and can help them with table reservations.

- There are three types of users. Admin, Chef and Customer. Each user has userId, name, phone number, email, an address.
- The restaurant can have multiple menus. Example: Food menu, Drinks menu.
- Dish has a name, a price, quantity, type of cuisine and if its vegan.
- Each dish has a recipe which contains instructions on how to prepare it. A recipe uses a list of ingredients.
- Every order contains orderId, status, subtotal, item discount if any, tax, promocode if available and total amount to be paid by customer.

When it comes to creating goals, there is always one thing that every restaurant manager may have in common: enhancing a restaurant's service and profitability. One must constantly assess and comprehend a restaurant's operational costs and how they relate to a restaurant's productivity and efficiency in providing great service to its clients in order to optimize a restaurant's profitability. Management takes a very important role in controlling and manipulating the balance of costs and profitability. Oftentimes, a restaurant's profitability either rises or falls depending on how well it is being managed. Managing a restaurant using a well-developed software minimizes the liabilities of mismanagement and productivity loopholes. The incorporation of a Restaurant Management Software in the managing of various business processes entails that your restaurant is competitive, innovative, well-managed, and up to date with the latest management and business trends.

## Functionality:

- Admin manages a chef i.e., hire a new chef, and remove a chef.
- Admin monitors payments from customers for their orders.
- Each chef at the restaurant prepares the dish according to the recipe and associated ingredients.
- A chef can look up the recipe of a dish. He can add a recipe to the menu, modify a dish by changing its ingredients.
- An admin can also see who cooked a dish.
- Customer can call the restaurant to book a table by providing their details and number of people. An admin reserves the table with customer details, time and date.
- At the restaurant, the customer sees the menu and orders dishes, and finally makes the payment.
- An order consists of dishes ordered by the customer, the subtotal, discount id any dish has a discount, tax and total. If the customer has any promo codes, they can provide it for discounts.
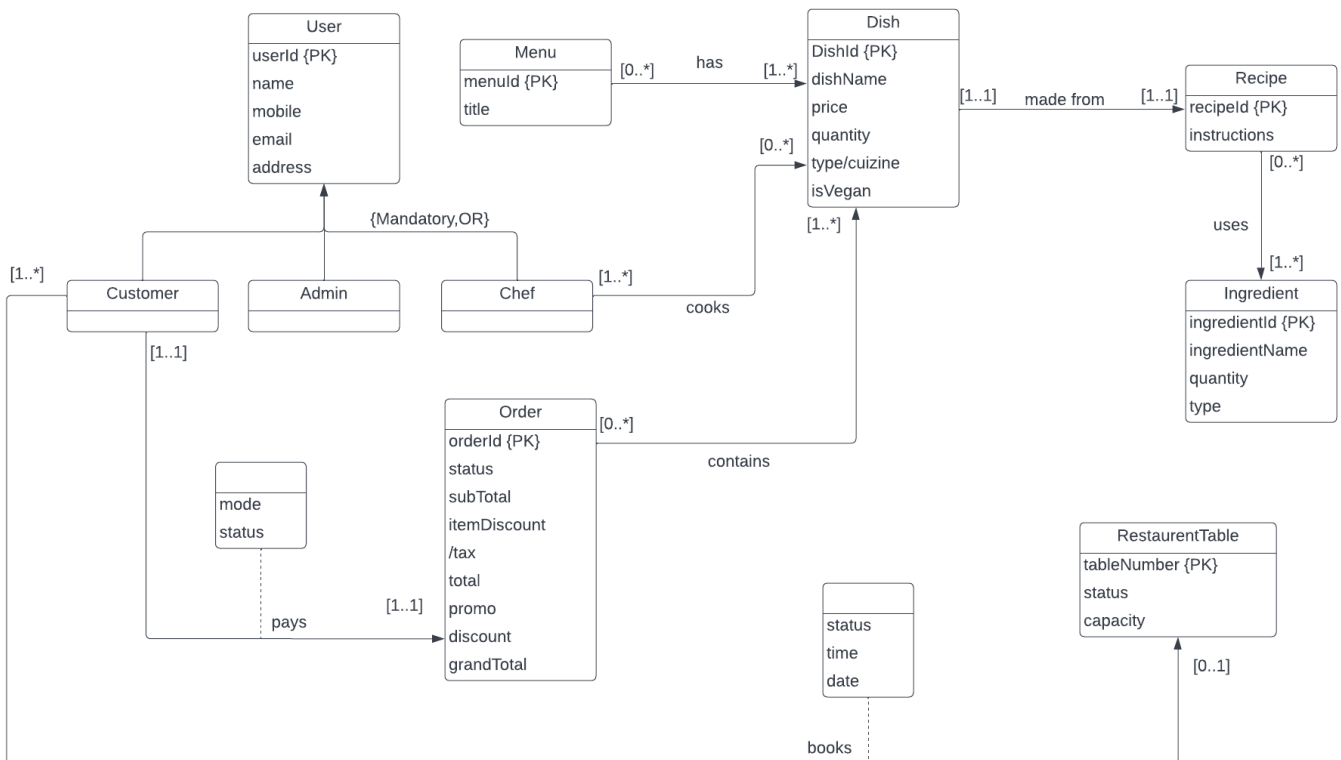
Storage: SQL

## Requirements:

- Hardware Requirements:
  - Memory (RAM): 8.00 GB
  - System Type: 64-bit OS, x64-based processor
  - Storage Capacity: 128 GB
  - CPU: 2.30GHz
- Software Requirements:
  - Development Tools: SQL Workbench, VS Code or Anaconda
  - Languages: MySQL, Python, HTML, CSS, Bootstrap
  - Libraries: Flask, mysql-connector

## Why does this project or this data domain interest you?

"Good food, Good Mood". We all like eating. It is a necessary component of everyone's existence. Having the same eating cycle as our habit gets boring for all of us. Eating out can help us break this pattern, cut down on cooking time, and experience a variety of cuisines. Hence, we have chosen to build a management system for the food palace restaurant. This management system helps the restaurant manage the customers, chefs, payment and the overall administration of the business.

## UML diagram:

Activity diagram:

Customer flow:
- (start)
- Customer
- Reserve a table
- Enter details
- Check availability
  - No → Reserve a table
  - Yes → See the menu
- See the menu
- Order
- Payment
- (end)

Chef flow:
- (start)
- Chef
- Add a dish → Make a recipe
- Modify a dish → Select a dish → Modify ingredients
- Cook dish
- (end)

Admin flow:
- (start)
- Admin
- Manages chef
- Monitor Payment
  - Failed → Monitor Payment
  - Successfull → Complete
- (end)