# CS-355 Databases

# Fall 2019

# Project Proposal

**DBMS for a Restaurants Chain**

**Laiba Fatima Khan (lk04067)**

**Muhammad Shahzain (ms03977)**

**Kabir Kumar (kk03925)**

# *Submitted to*

**Dr. Ayaz ul Hassan Khan**

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Habib University, Karachi

**Introduction**

For our project, we will be building a database system to manage a [hypothetical] chain of restaurants in Karachi. While softwares do exist for this in real world, we want to implement our version of a database system to manage a restaurant chain, based on our own descriptions.

The database will hold information regarding the restaurants associated with the chain, the food items and drinks offered by these restaurants, the employees working there, and the customers and their orders placed at any restaurant of the chain.

The database management system will allow the user to enter new information and search from the existing information in the database.

**Modules of the System**

The important entities in our database include Restaurants, Food Items, Items Categories, Customers, Orders, Employees and Job Categories.

The system will be able to generate bills for all orders placed by customers at any restaurant of the chain. Each order will be assigned to a waiter in the case of dine-in and to a delivery person otherwise. Both waiters and delivery people can handle several orders at once. Total bill be calculated as the total amount of food ordered in the case of dine-in and will charge an extra fee for home delivery. System will also keep track of regularly visiting customers who will receive the options of deals and discounts.

The system will also generate pay slips for employees based on hourly wages rate for their particular job and their work hours per day.

**Tools & Technologies**

**Back-end:** Microsoft SQL Server

**Front-end:** Windows Forms App (language: C#)

**Front-end Development**

The DBMS Application for user will be a Windows Forms App developed in C#, with back-end connectivity to the actual Database through SQL Server queries.

Our goal is to have an app which mostly handles the billing of customer orders at the restaurants, by keeping track of the foods and drinks the restaurant offers along with their prices.

The user will be able to add details of a new order and search the records of a certain past order.

The quantity of a certain item sold during a certain period of time can also be retrieved from the system (to check popularity of items).

Also, the database system will keep record of the personal details of the restaurant staff (manager, waiters, chefs etc.), their work hours per day and hourly wages (according to their jobs) in order to determine their salaries. The user will be able to add details of a new staff and also search for an existing staff member in the database.