Mini World Project Report – Restaurant Database System

For my Mini World project, I chose to design a restaurant database system. I selected this topic because I work part-time at a Vietnamese restaurant, which gave me firsthand experience and insight into how restaurant data is organized and used in real operations. The goal of my project was to create a well-structured database that captures all the essential parts of a restaurant business, including customers, employees, orders, menu items, and detailed order information.

To start, I gathered system requirements by talking to actual staff members at the restaurant. I interviewed the head server, Pema, to better understand the details captured during order-taking. She explained that they track the order number, the food items ordered, quantities, and prices. She also told me that they store customer information like name, contact, and the first visit date. This helped shape my Customers and OrderDetails tables.

I also interviewed the manager, Palzom, to understand what employee data the system should store. She shared that they manage employee names, job positions (e.g., chef or waiter), hire dates, and contact numbers. Based on this, I created the Employees table.

The data for MenuItems and Orders came directly from the restaurant's POS system. The POS provided fields like item name, category, price, availability, order date, total amount, and payment method. This made the database more accurate and practical.

I created both a hand-drawn ER diagram and a digital one using Access. The hand-drawn diagram was the most challenging part because it required me to think deeply about relationships and how each table connects. It took a few tries to get the relationships and notations correct, but it helped me understand the structure much better. After that, I used Microsoft Access to enter sample data for all five tables: Customers, Employees, MenuItems, Orders, and OrderDetails.

To complete the system, I exported the Access design to MySQL and wrote the SQL scripts to recreate the tables and insert sample data. This part helped me understand how databases can be transferred across platforms and how SQL works in real-world systems.

In conclusion, this project helped me learn how to plan, design, and build a relational database using real-life information. I improved my understanding of data modeling, ER diagrams, and SQL coding. Most importantly, by connecting my project to a real restaurant I work at, I was able to build something that reflects real processes and can be used to improve operations. The interviews I conducted made the database more meaningful, and the experience gave me confidence in building systems based on actual user needs.