**DBMS Phase 1 - Team 6**

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1) Our project will create a database for a generic restaurant. The database is supposed to help keep track of the people, duties and products so the restaurant can run more efficiently. We will have a collection of related data organized by entities consisting of different attributes that can be updated anytime. Instead of having records written in pen, the restaurant will now have a digital way of keeping their records. There will be a user-friendly software that implements the restaurant's database, which will store data and information that applies to important objects (entities) within the restaurant. Now the restaurant will be able to keep track of the information of employees, items on the menu, salaries, staff roles, reservations, and etc. easily by using the software that we will implement. The restaurant database will collect all relevant relations between different data, without having a messy record book with millions of pages. It is very important for a restaurant to keep track of all the different “states” the restaurant undergoes when it comes to different occurrences the restaurant may go through. Such occurrences may include: employee’s income, number of customers, menu items, number of employees, etc. We can easily update the information if an employee gets fired or moves to a different house with a different phone number.

2) The objective for our our project is to keep track of the restaurant’s records. The database will make it easier for the restaurant to keep track of data such as; menu items, employees, salary, amount of customers, etc.

3) **Timeline and Planning:**

3/20 Friday - Phase 1 Completed.

3/24 Tuesday - Fully understand the Software we are using to implement our DBMS.

3/26 Thursday - Have at least 3 tables created for our database in mySQL.

4/2 Thursday - Have a functionable database with all tables and constraints.

4/7 Tuesday - Go over any issues we are having for our DBMS.

4/9 Thursday - Compare our DBMS implementation to our newly modified Relational Database Schema.

4/29 Wednesday - Final DBMS Completion.

4)

*\*\*Fabricated client interview so there are no real times or dates.\*\**

**What are some things you would like to keep track of that a database would be beneficial in implementing? *Do you think an organized database containing all of your records and that is accessible to all of your employees will be beneficial to your company? - Yes, I think that is a great idea. Currently, we are not fully organized when it comes to having all personal information for the employees. All of the information for the employees is in a cabinet... I think \*chuckles\*, who knows? Also, it would be nice to see all of the menu items that are currently on the menu on our computer!***

*We would like to keep track of menu items, employee data, Staff roles, reservations and customer data if possible.*

**Okay, what menu items would you like to keep track of? *What type of data are we allowed to have access to? Are we allowed to have the information for the following: employees, menu items, employee roles, reservations, customers, orders, ingredients, and etc.? - You guys are more than welcome to have information about our restaurant as long as if it is easy to navigate the database software for our employees’.***

*We would like to keep track of a Menu Item ID in order to keep track of each unique item so we can keep track of sales, safely. It would also be convenient to keep track of a Menu Item Description so we know what each item consists of. Prices should be tracked as well if possible.*

**And for a table in the Database called Employee, what would you want to keep track of? *What kind of personal information are we allowed to keep track of for the employees’? - The employee’s full name, date of birth, address, salary, social security, and their role within the restaurant.***

*Obviously the employee's full name should be stored. We also have data for the employee’s year of birth and mailing address. Keeping track of Salary and Social security number as well as a role ID.*

**You mentioned you wanted a Staff Role section in the database, what needs to be included in that? *What roles do the employees have? - We have a manager, the chef or head cook, the kitchen staff, kitchen workers, cashier, waiter/waitress, busboy, dishwasher, bartenders, and hosts/hostess’.***

*Staff role ID and a role name would be convenient to have. There also would need to be a section that is kept track of to know exactly what section that employee’s staff role is in.*

**For reservations, what kind of data do you guys keep? *For reservations, what is the maximum amount of customers you guys are allowed to book? - The biggest party we can seat at our restaurant is a party of 10.***

*We don’t really have an in depth system for reservations but ideally we could use this database you are creating to make things run more smoothly. Now that i think about it a Reservation ID would be ideal because it would help us keep track of each unique reservation. We already log a date and time so adding that into the database would be nice. Also logging the Size of the reservation to keep track of how many customers need to be seated and if the restaurant has the correct seating available.*

**Alright, I guess you would need to keep track of some customer information, what would you like in customer table of the database? *What information would you like us have for the customer? What attributes are most important for the customer? For example, their order number. - We attempt to keep track of the customer’s full name, phone number, email, order, and order status. I think you guys will do a much better job at it than we have! I mean look at these papers. \*Chuckles\****

*We need a customer ID in order to identify the unique customer who has placed an order. Obviously, first name, middle initial and last name of the customer. Also a customer phone number so they can be contacted for promotions or takeout order status. Some customers may not want their phone number to be stored so we would like to have a section for customer email.*

**Thank you for your time. Do you have any final thoughts or requests before we begin the process of creating this database? *Your records are not as messy as you make them to be! \*Looks through records\*. Ah, these records have some of the main information I need. You will greatly benefit by having an easy to use database software for the whole company. Thank you so much for your time. I hope we can help! - No, thank you! This will help us immensely. Here is my phone number again if you need to contact me. Let me know if you need any more information about our restaurant!***

*No, thank you! This will help us immensely. You guys are doing a great job and I feel like anything that you all create will be helpful to us. I give you complete freedom to create this database as you see fit.*

5) How many attributes does an employee need?

What should the primary keys for each entity?

Can a customer have a primary key and if a customer has a primary key what can it be?

Can a role be in many sections?

6) Giao - Team Leader: He will mass text all of us to make sure we have completed all of the assignments and labs. He has motivated each team member, maintained an effective team, and will resolve issue(s) we give to him by asking Dr. T.

John - Development Manager Goals: He makes sure the functionality and the high-quality product is not too trivial and understands our weaknesses and strengths. He allowed Giao to remain the communicator and when we have a team wrap-up, he points out what went right and wrong with decision making from each member.

Alex- Support Manager Goals: He ensures that the project is completely supported and controlled. He makes sure we are on track and do not make changes to the product(s).

Joe- Planning Manager Goals: He guides the team so we follow a detailed plan, which keeps us organized. He reports the team status every week. Also, he will help structure and design the assignment by looking at it ahead of time.

7) Giao will be the first to communicate via mass text messaging. We communicate and find a specific time and location in order to work on certain assignments. We will all communicate via Google Voice, Google Docs, and RealTime.

8) Employee

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| EmployeeFName | EmployeeLName | SSN | Sex | BirthDate | Salary | EmployeePhone | Address | EmployeeID |

MenuItem

|  |  |  |
| --- | --- | --- |
| MenuItemName | MenuItemDescription | Price |

Menu

|  |  |
| --- | --- |
| MenuDescription | MenuID |

StaffRole

|  |  |
| --- | --- |
| RoleID | Section |

Reservation

|  |  |  |  |
| --- | --- | --- | --- |
| ReservationID | Date | Time | PartySize |

Customer

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| CustomerID | CustomerFName | CustomerLName | CustomerPhone | CustomerEmail |

10)

Employee

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| EmployeeFName | EmployeeLName | SSN | Sex | Birthdate | Salary | EmployeePhone | Address | EmployeeID | RoleID |

StaffRole

|  |  |  |
| --- | --- | --- |
| EmployeeID | RoleID | Section |

MenuItem

|  |  |  |
| --- | --- | --- |
| MenuItemName | MenuItemDescription | Price |

Menu

|  |  |
| --- | --- |
| MenuItemName | MenuType |

Order

|  |  |
| --- | --- |
| CustomerID | MenuItemID |

Customer

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| CustomerFName | CustomerLName | CustomerEmail | CustomerPhone | CustomerID |

Reservation

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| PartySize | Time | Date | ReservationID | CustomerID | EmployeeID |

11)

Table: EMPLOYEE

|  |  |  |  |
| --- | --- | --- | --- |
| **Attribute Name** | **Data Type** | **Indicated Not NULL as needed** | **Primary/Foreign Key** |
| EmployeeFName | VarChar(20) | NOT NULL |  |
| EmployeeLName | VarChar(20) | NOT NULL |  |
| SSN | Char(11) | NOT NULL |  |
| Sex | Char(1) | NOT NULL |  |
| BirthDate | Date | NOT NULL |  |
| Salary | Double | NOT NULL |  |
| RoleID | VarChar(15) | NOT NULL | Foreign Key |
| EmployeePhone | VarChar(14) | NULL |  |
| Address | VarChar(60) | NOT NULL |  |
| EmployeeID | VarChar(15) | NOT NULL | Primary Key |

Table: MENUITEM

|  |  |  |  |
| --- | --- | --- | --- |
| **Attribute Name** | **Data Type** | **Indicated Not NULL as needed** | **Primary/Foreign Key** |
| MenuItemName | VarChar(20) | NOT NULL | Primary Key |
| MenuItemDescription | VarChar(60) | NOT NULL |  |
| Price | Double | NOT NULL |  |

Table: MENU

|  |  |  |  |
| --- | --- | --- | --- |
| **Attribute Name** | **Data Type** | **Indicated Not NULL as needed** | **Primary/Foreign Key** |
| MenuItemName | VarChar(20) | NOT NULL | Primary Foreign Key |
| MenuType | VarChar(20) | NOT NULL | Primary Key |

Table: STAFFROLE

|  |  |  |  |
| --- | --- | --- | --- |
| **Attribute Name** | **Data Type** | **Indicated Not NULL as needed** | **Primary/Foreign Key** |
| EmployeeID | VarChar(15) | NOT NULL | Foreign Key |
| RoleID | VarChar(15) | NOT NULL | Primary Key |
| Section | VarChar(30) | NOT NULL |  |

Table: RESERVATION

|  |  |  |  |
| --- | --- | --- | --- |
| **Attribute Name** | **Data Type** | **Indicated Not NULL as needed** | **Primary/Foreign Key** |
| EmployeeID | VarChar(15) | NOT NULL | Foreign Key |
| CustomerID | VarChar(15) | NOT NULL | Foreign Key |
| ReservationID | VarChar(15) | NOT NULL | Primary Key |
| Date | Date | NOT NULL |  |
| Time | Time | NOT NULL |  |
| PartySize | Int(3) | NOT NULL |  |

Table: CUSTOMER

|  |  |  |  |
| --- | --- | --- | --- |
| **Attribute Name** | **Data Type** | **Indicated Not NULL as needed** | **Primary/Foreign Key** |
| CustomerID | VarChar(15) | NOT NULL | Primary Key |
| CustomerFName | VarChar(20) | NOT NULL |  |
| CustomerLName | VarChar(20) | NOT NULL |  |
| CustomerPhone | VarChar(14) | NULL |  |
| CustomerEmail | VarChar(40) | NULL |  |

12) For our project, we will be implementing our database on mySQL since we are more familiar with mySQL then anything else.