Database Project Assignment 3: Entity Relationship Diagram & Documentation

Create an ERD for your database.

* Use a computer software, such as lucid chart or MS Visio
* Identify any foreign keys
* Identify primary keys
* Describe relationships between your tables using crows foot notation.
* Include 6 to 8 entities in your design

For each **table** in your ERD, you should have a paragraph explaining:

* What data is in this table?
* What attributes are included?
* Are there any foreign keys?
* What is the primary key?
* What table(s) does this table have a relationship with?
* What is the relationship between the tables, and why is it that?

Upload your assignment to Moodle and Github. Show your ERD and explain the logic on Flipgrid.

The first table I have is the Order table. The Order table has many attributes; OrderID, Store\_ID, Cust\_ID, Payment\_ID, Order\_Time, Drink\_ID and Food\_ID. The OrderID is the primary key while Store\_ID, Cust\_ID, Payment\_ID, Drink\_ID and Food\_ID are the foreign keys. The Order table also has multiple relationships with other tables. It has a one to many relationship with the Store table. There can be multiple orders but it comes from only one store. The Order table has a similar relationship to the Customer table as the Store table. A Customer can have many orders but each order comes from one customer. The Order table has a one to one relationship with the Payment table. Each order has only one payment and each payment only has one order. The Order table has a one to many optional relationship with the Cafe Drinks table. An order can have multiple drinks or no drinks. Finally, the Order table has a one to many optional relationship with the Cafe Food table. In the same way, an order can have multiple food items or no food items.

The second table I have is the Cafe Drinks table. The Cafe Drinks table has many attributes; Drink\_ID, Drink\_Size, Drink\_Price and Drink\_type. The Primary key is the Drink\_ID and the Cafe Drinks table has no foreign keys. It has a relationship with the Order table. The Cafe Drinks table has a one to many optional relationship with the Order table. An order can have multiple drinks or no drinks.

The third table I have is the Cafe Food table. The Cafe Food table has many attributes; Food\_ID, Food\_Price and Food\_Type. The primary key is the Food\_ID and the Cafe food table has no foreign keys. It has a relationship with the Order table. The Cafe Food table has a one to many optional relationship with the Order table. An order can have multiple food items or no food.

The fourth table I have is the Store table. The Store Table has many attributes; Store\_ID, City, State, ZipCode, and Address. The primary key is the Store\_ID and the Store table has no foreign keys. The Store table has a relationship with the Employee table. The relationship between the Store table and the Employee table is a one to many relationship. One store can have multiple employees but each employee can belong to only one store.

The fifth table I have is the Employee table. The Employee table has many attributes; EMP\_ID, EMP\_FName, EMP\_LName, Store\_ID, Gender, EMP\_City, EMP\_State, EMP\_ZipCode, and EMP\_Address. The primary key is EMP\_ID and the foreign key is Store\_ID. The Employee table has a relationship with the Store table. It has a one to many relationship. An employee can belong to only one store but there can be multiple employees at one store.

The sixth table I have is the Customer table. The Customer table has many attributes; Cust\_ID, Cust\_FName, Cust\_LName, Rewards\_ID, Cust\_City, Cust\_State, Cust\_ZipCode, and Cust\_Address. The primary key is Cust\_ID and the foreign key is Rewards\_ID. The Customer table has two relationships one with the Order table and one with the Rewards table. The Customer table has a one to many relationship with the Order table. One customer can have one order or many orders but each order comes from only one customer. The Customer table has a one to one optional relationship with the rewards table. A customer has the option to be in the rewards program or can choose not to be in the rewards program but each customer can only have one rewards program.

The seventh table I have is the Rewards\_Program table. The rewards table has many attributes; Rewards\_ID, Date\_Created, Status, Current\_Points, and Cust\_ID. The primary key is the Rewards\_ID and the foreign key is Cust\_ID. The Rewards\_Program table has one relationship with another table. The Rewards\_Program table has a one to one optional relationship with the Customer table. Each rewards program can have only one customer but the customer has the option to be apart of the rewards program.

The last table I have is the Payment Method table. The Payment Method table has many attributes; Payment\_ID, Order\_ID, Card\_Type and Payment\_Total. The primary key is Payment\_ID and the foreign key is Order\_ID. The Payment Method table has one relationship with another table. The Payment Method table has a one to one relationship to the Order table. Each payment has only one order and each order has only one payment.