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.

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 as a PDF to Moodle and Github. Show your ERD and explain the business logic on Flipgrid.

Item

The Item table has the following data: DPCI, Truck\_ID, Department\_Name, Reciept\_Number, and Defect\_ID. DPCI will be the items primary key is a code used by Target to assign an ID to every item within the store to identify what item it is. Truck\_ID, foreign key, is the number that corresponds to the truck that this item arrived on. Department ID, foreign key, is used to classify what department it belongs to. Reciept\_Number and Defect\_ID, foreign keys, are both optional and can have a value of null. Reciept\_Number is used when the item is sold and it has a receipt tied into it. Defect\_ID is used when the item is defected out and it will have a corresponding Item\_Defect. This table is connected to receipt, Item\_Defect, Department, and Truck\_Order.

Truck\_Order

Truck\_Order is used to keep track of all the products that come to the store in any set truck. This table is connected only to the Item table since each truck has many items. The different data used in this table is Truck\_ID, Truck\_Date, and DPCI. Truck\_Date is used to show what day the truck got to the store whereas the Truck\_ID, primary key, is used to distinguish the exact truck, since in a day there can be multiple trucks that arrive.

Department

Department is used to classify items into departments that they belong to so that they can have their own group. Department has a Department\_Name, primary key, to assign a name to each department and an Emp\_ID, foreign key, to assign a set of workers for the department.

Reciept

The receipt table is used whenever there is a return or purchase of an item in the store. This table holds the data Reciept\_Number, DPCI, Sale\_ID, and Return\_ID. Reciept\_Number, primary key, is used to assign an ID to the receipt so if there is an instance that the receipt needs to be pulled up in the system, the workers can just lookup the Reciept\_ID. DPCI, foreign key, is any item that was purchased in any particular transaction. Sale\_ID and Return\_ID, foreign keys, are used when an item is either sold or returned. The tables connected to Reciept are Sale and Return.

Sale

The sale table is used whenever there was a sale in the store. This table contains the data Reciept\_Number, Sale\_Date, and Sale\_Time. Reciept\_Number, primary key and foreign key, is used to identify the receipt the sale comes from. Sale\_Date and Sale\_Time, primary keys, are used to identify the exact time and date the sale happened. The table that is connected to sale is Reciept.

Return

The sale table is used whenever there was a sale in the store. This table contains the data Reciept\_Number, Return\_Date, and Return\_Time. Reciept\_Number, primary key and foreign key, is used to identify the receipt the sale comes from. Return\_Date and Return\_Time, primary keys, are used to identify the exact time and date the sale happened. The table that is connected to sale is Reciept.

Item\_Defect

Item\_Defect is used to connect the tables Item and Defect. The data used in this table is Defect\_ID and DPCI, both foreign and primary keys, used to identify the exact instance that an item gets defected out.

Defect

The Defect table is used whenever there was a Defect in the store. This table contains the data Defect\_Number, Defect \_Date, and Defect \_Time. Defect\_ID, primary key and foreign key, is used to identify where the defect comes from. Defect \_Date and Defect\_Time, primary keys, are used to identify the exact time and date the defect happened. The table that is connected to sale is Item\_Defect.