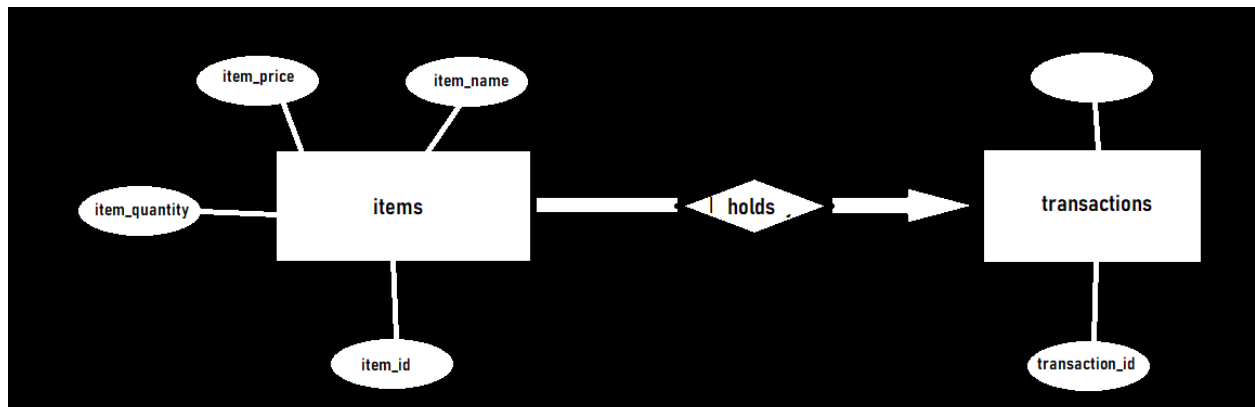


The purpose of your database

The purpose of the database is to take a list of car parts, and using a GUI allow them to be purchased and the user receives a receipt.

ER diagram of your database



Schema of your database, including all information as to how the database was normalized (show functional dependencies)

Items(item_id int, item_name varchar(100), item_price decimal(10,2), item_quantity int)

Transactions(transaction_id int AUTO_INCREMENT, total_price decimal(10,2))

A list of information questions that the queries you wrote provide answers for

SELECT * FROM items;

- Retrieves all data from the items table.

SELECT * FROM items ORDER BY item_price DESC LIMIT 5;

- Retrieves all data from the items table, orders the result by item_price in descending order, and limits the output to the top 5 rows.

SELECT item_name FROM items WHERE item_name LIKE '%e%';

- Retrieves item_name from the items table where the item_name column contains the letter 'e'.

SELECT AVG(item_price) AS average_price FROM items;

- Calculates the average value of item_price from the items table and returns it.

SELECT * FROM transactions ORDER BY transaction_id DESC LIMIT 5;

- Retrieves all data from the transactions table, orders the result by transaction_id in descending order, and limits the output to the top 5 rows.

SELECT * FROM items WHERE item_name LIKE '%battery%';

- Retrieves all data from the items table where the item_name contains the word 'battery'.

SELECT * FROM items ORDER BY item_price DESC;

- Retrieves all data from the items table and orders the result by item_price in descending order.

SELECT * FROM items WHERE item_price < 50;

- Retrieves all data from the items table where the item_price is less than 50.

SELECT * FROM items WHERE item_price > 50.0;

- Retrieves all data from the items table where the item_price is greater than 50.0.

SELECT COUNT(*) AS total_items FROM items;

- Counts the total number of rows in the items table and returns the count with the alias total_items.

A discussion of what grade you deserve for the project and why

I believe an A is deserved because to get this program to fully work the way I intended I have to learn several different third party libraries including Tkinter and Smtplib and MIMEText to get the entire project working the intended way. Although in the prompt it stated to just get data and use python to execute the queries and put the output into a solutions file. I felt like I wanted to challenge myself with this final. Recently I have been learning a lot of new languages outside of class for a community project where I am one of the developers for a game server. I originally wanted to use html, css, javascript and php to make a sign in page and a sample website where I can interact with a database but I felt as though this strayed too far from the course goals plus I have done this previously for the community project, which is why I decided on the GUI library instead.