CS443 Project Report

Team 2: Daria Casey & Cassandra Priddy

Throughout this project we were able to learn more about the beginning to end process of database design, implementation, and furthermore, user interaction with a database and the pitfalls that can occur at that stage. Notably, we realized how important the initial design and planning of a database is, as any flaws or inefficiencies are likely to be caught and cause problems at a later point. At that later point, it can be difficult but often necessary to adjust the database design, this can be a cumbersome process the farther along interface development is though, and it leaves more room for error as the risk to miss changing just one necessary code snippet increases.

Challenges faced during this project were our initial ER Diagram had to be modified, as the initial set up made it difficult to accurately log products in the cart, which made placing orders difficult, so the CartItems table was added. In addition, the Cart was added as it was required to allow users to save multiple items temporarily before making an actual Order.

We implemented all of the necessary features, update, query, insert, and delete. The only known bug which we found during our presentation was if a user who is not logged in tries to add an item to their cart it results in an error. Users who are not logged in are not intended to have the “add to cart” feature available to them which is why this error is caused because we forgot to implement that and also did not create a case to handle it when a user who is not authenticated does press the button. Besides this there are no known errors.

Outside sources utilized include using Bootstrap’s premade css designs for much of the visual design of our site, initial debugging was aided by resources such as Django documentation, StackOverflow, and ChatGPT, and we used VSCode and GitHub for development and versioning.

Throughout this project most work was done individually by either of us, one at a time, with collaboration coming primarily in the form of checking our understanding of a feature with the one who implemented it before adding anything new. We collaboratively conceptualized the initial database design, tested new features, and reviewed one another's additions as the project progressed. Individual contributions are outlined include:

Cassandra:

* Drafted the initial ERD, as well as the updated ERD and database schema
* Updated web design and layout/formatting for more user-friendly experience:
  + Order History page design and implementation
  + Populated the database
* Made Department model functionally relevant by adding a sidebar to the Products page to sort products by Department
* Added the Search feature and results page
* Wrote project report

Daria:

* Set up Django project:
  + Created initial html templates, navbar, URLs, and views for each page
* Implemented initial database models (tables become models in Django) and base interactions between models:
  + Customer adds Products to Cart, user Orders CartItems
* Added user authentication (login/logout)
* Made most of the presentation
* Wrote user manual