**ENSF 607 / 608 Project Proposal**

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**Full-Stack E-Commerce Web Application: “Active Tech Style”**

**Project abstract**

This project is an E-commerce application. Enormous multinational corporations such as Amazon and Shopify signify that E-commerce is an area that is extremely valuable and useful to consumers. The ability to quickly order online products and goods from any convenient location is very useful. Our project aims to take inspiration from those sites.

**Entity Relation Diagram**

Diagram

Description automatically generated

* **Assumptions:**

1. user can only add one item of each product to the cart, meaning that cannot have multiple items of same product in the cart.
2. cart could supposedly be used for keeping track of customers purchase history as well as the wish list by assigning a proper “status” attribute.
3. relation between customer and billing is 1-1 however both can exist without the need to be assigned to the other one ( a card can exist without the customer and vice versa). However, the frontend prevents submitting any order for a customer without having a billing assigned to it.
4. all users must be registered to be able to checkout.

Note: during the course of design and implementation of the project, we realized that a better schema could be used for this project, therefore, we changed the schema as well as the relational model. As a result, the implemented design is a bit different than what was initially proposed.

**Relational model**

Graphical user interface, application

Description automatically generated

**Functional model**

Diagram

Description automatically generated with low confidence