E-Commerce Application Final Report

**Project Goal and Details:**

A good e-commerce app should have several objectives to provide users with a seamless and enjoyable shopping experience. Here are some of the key objectives:

1. User-friendly interface: The app should have a simple and intuitive interface that makes it easy for users to find what they want. We managed to accomplish this by utilizing Bootstrap framework in

CSS which helped present the products in a user-friendly interface.

Graphical user interface, application, website

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1. Easy checkout process: The checkout process should be straightforward, with clear instructions and easy-to-use payment options. Users can quickly select and purchase any items they like without interrupting their browsing by simply adding them to the cart through the easily accessible “Add To Cart” option always available under all items and then when they are done quickly finishing the purchasing process through the cart itself.

Graphical user interface, application, website

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3. Secure payments: The app should provide secure payment options to protect users' personal and financial information. This is a WIP feature and is not currently available since it is not required for the demo version.

1. Product search and filtering: The app should allow users to easily search for products and filter results by various criteria such as price, brand, and category. For the current build, users are only able to filter through products by category.

Graphical user interface, application

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5. Product recommendations: The app should provide personalized product recommendations based on users' browsing and purchasing history. This feature is not available as it requires complex algorithms and user data-collection methods.

6. Order tracking and status updates: The app should allow users to track their orders and receive status updates on their delivery. For the current demo integrating with 3rd party API and shipping services is unnecessary.

Overall, a good e-commerce app should provide a seamless shopping experience that is easy to use, secure, and personalized to the user's preferences.

**Background/Literature Review:**

There are several team roles required for a software project, and the specific roles needed can vary based on the project's size, complexity, and development methodology. In this case, the project is a medium-sized E-commerce application which was completed by one individual. However, some common roles for a software development team are:

1. Project Manager: responsible for planning, organizing, and leading the project, managing resources, ensuring deadlines are met, and maintaining communication between the different team members. As this project was managed by only one individual, having an official project manager was not necessary, but I still performed many of the responsibilities of one such as planning/organizing the project tasks and making sure I met the established deadlines. The most challenging aspect of this role was deciding which features had to be included for the demo to resemble an actual E-commerce application without it becoming too complex or consuming too much time to finish before the deadline and which features were not necessary to the current version of the demo.

2. Software Developer: responsible for designing, coding, testing, and debugging software applications according to specifications. The Internet has many different publicly available sources and guides on the creation and coding of E-commerce applications which were of great help to me in creating the demo for the application.

3. Quality Assurance (QA) Analyst: responsible for testing the software to ensure it meets quality standards, identifying defects, and reporting issues to developers. This role was not needed as it is not relevant to the goals and aims of this project.

4. User Experience (UX) Designer: responsible for designing the user interface and user experience of the software, ensuring it is intuitive and easy to use. Designing a functional and convenient interface was not challenging as there are many E-commerce websites and digital storefronts on the internet which I was able to emulate and take inspiration from.

5. Database Administrator (DBA): responsible for managing the database and ensuring its reliability, security, and performance. The database I used for the making of this project is SQLite 3, which is similar to the ORACLE database so I was able to utilize it without too much difficulty.

These roles can overlap or be combined depending on the project's needs, and some projects may require additional roles not listed here.

**Chosen methodology for the research, development, tools and platforms:**

While making the demo, I ensured that the data required and stored by the application would be as little as possible to preserve the user’s privacy and personal information. As such the only Information we collect during the sign-up process are the name, email, phone number and password entered by the user. The delivery address is only used during the delivery process and is only required to be entered by the user when making an order for the first time. The password is stored in an encrypted form and the database is secure.

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