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CS 499

Milestone 2 Narrative

Project Enhancement Narrative: CornerGrocer - Web Interface and Inventory Management

1. Goals of the Enhancement:

The primary goal of this enhancement was to transform the existing "CornerGrocer" project, which was originally a C++ console application, into a more user-friendly and modern inventory management system with a web interface. The objective for this assignment was to:

- **Improve the User Interface**: Transition from a basic console UI to an interactive and responsive web interface.

2. Steps for Implementation:

I approached the enhancement by working on the front-end development of the application.I began with the creation of a web interface using HTML, CSS, and JavaScript.

Step 1: UI Design and Web Interface Implementation

The first step in the enhancement was to build the UI using web technologies, which would offer a much more engaging and interactive experience compared to the C++ console. Here's how I accomplished this:

- **HTML**: I created the core structure of the web page. The HTML provided the skeleton for the page, including sections for displaying the inventory and forms to add new items.

This also included buttons to allow users to interact with the inventory, such as adding new items, updating existing items, and deleting items.

- **CSS**: For styling, I used CSS to make the UI visually appealing and user-friendly. I focused on clean layouts, consistent fonts, and responsive design so that the page would function well on both desktop and mobile devices.

- **JavaScript**: JavaScript was used to add interactivity to the page. The inventory items are stored in an array of objects, and I wrote functions to handle adding, updating, and removing items based on user input. When a user adds an item, it's dynamically displayed in the inventory list, and if an item is updated or removed, the display is updated accordingly.

3. Enhancements and Skills Demonstrated:

Through this enhancement, I demonstrated a variety of skills:

- **Web Development**: I transitioned from a console-based UI to a modern web-based UI using HTML, CSS, and JavaScript. This involved designing a user-friendly interface and making it interactive, which greatly improved the usability of the system.

4. Alignment with Course Outcomes:

This enhancement aligns with the following course outcomes:

- **Course Outcome 4**: "Demonstrate an ability to use well-founded and innovative techniques, skills, and tools in computing practices for the purpose of implementing computer solutions."
  I applied web development techniques to create a functional inventory management

system, showcasing my ability to use modern tools (HTML, CSS, JavaScript) in building a computing solution.

- **Course Outcome 2**: "Design, develop, and deliver professional-quality oral, written, and visual communications that are coherent, technically sound, and appropriately adapted to specific audiences and contexts."
  I effectively communicated the system's design and functionality through both the UI and the README documentation. The user interface was designed to be visually appealing and easy to navigate, making it accessible to end-users.

5. Final Thoughts:

This enhancement was a significant step in improving the original project. By transitioning from a C++ console application to a web-based inventory management system, I not only improved the user experience but also laid the groundwork for future enhancements, including database integration. As I continue to work on this project, I plan to integrate a database to store inventory data persistently, which will take the system to the next level.