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CS 499 Computer Science Capstone

Professor Wasim Alim

5-2 Milestone Four: Enhancement Three: Databases

The travel planning application was originally developed for SNHU’s CS-250 course and later enhanced with secure user authentication, itinerary creation, and real-time database queries. Structured across three different files: database.py, service.py, and main.py. I have updated the project to emphasize clean architecture and practical user interaction, making it a strong representation of my software development skills.

The artifact was selected for the ePortfolio because it showcases backend development, user-centered design, and effective integration of database management principles. Key improvements include foreign key enforcement, itinerary management, and meaningful system feedback. These enhancements reflect a thoughtful approach to usability and security.

The development and refinement process provided valuable insights into handling edge cases, improving user flows, and building scalable Python applications. Challenges like duplicate registration and empty queries led to better logic control and messaging. This project demonstrated a strong alignment with planned course outcomes and deepened understanding of secure, user-first application design. This was a unique opportunity to take my coding skills to the next level, by following a team’s design and implement it with database coding.