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CS-499

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4-1 Journal: Career Choice and Artifact Update

Throughout my journey in the Computer Science program, my career aspirations have evolved significantly. Initially drawn to the field by a passion for problem-solving and technology, I embarked with the goal of becoming a IT Engineer. However, as I delved deeper into the program, exposure to various disciplines like software design, algorithms, and databases broadened my perspective. This exposure prompted a shift in my career plans towards becoming an IT Project Manager, driven by a desire to engage more deeply in the development and implementation of technological solutions.

My thinking about my career has evolved from a narrow focus on technical support to a broader understanding of the role technology plays in shaping industries and societies. Engaging in research about my chosen career path has been instrumental in this evolution. Exploring topics such as software architecture, algorithmic optimization, and database management has provided insights into the multifaceted nature of IT engineering roles. Additionally, I've contemplated pursuing an advanced degree or certification post-undergraduation to deepen my expertise in specific areas and stay current with emerging technologies.

While progressing through the program, I've achieved several course outcomes related to software design principles, algorithmic thinking, and database management. However, there are still outcomes to achieve, particularly in areas like advanced algorithm design, data structures optimization, and complex database queries. These remaining outcomes represent opportunities

for growth and learning as I continue to pursue excellence in my academic and professional journey.

Status Checkpoints for All Categories

Checkpoint	Software Design and Engineering	Algorithms and Data Structures	Databases
Artifact	index.js	trips.js	user.js
Initial Enhancement Status	Proposed enhancements performed.	Proposed enhancements performed.	Proposed enhancements identified.
Submission Status	Submitted	To be submitted	Not submitted
Final Enhancement Status	In progress	In progress	Not started
Uploaded to ePortfolio	Not yet uploaded.	Not yet uploaded.	Not yet uploaded.
Finalized ePortfolio Status	Not yet finalized.	Not yet finalized.	Not yet finalized.

Software Design and Engineering (index.js):

The initial enhancements have been identified, including improvements to error handling, input validation, and security measures. Proposed changes align with the code review suggestions, such as implementing input validation, improving error handling, and adding descriptive inline comments. Changes have been made to the index.js file to incorporate JWT

authentication middleware and route handling logic for trips and authentication. However, the updated file has not been submitted yet for inclusion in the ePortfolio.

Algorithms and Data Structures (trips.js):

Similar to the software design category, proposed enhancements have been identified based on the code review feedback. These enhancements involve implementing a basic search algorithm and improving error handling and input validation. The code changes align with the recommendations outlined in the code review. However, the updated trips.js file has not been submitted or uploaded to the ePortfolio yet.

Databases (user.js):

For the databases category, proposed enhancements have been identified, focusing on improving password encryption, error handling, and secret management. These enhancements aim to enhance security and maintainability in the user.js file. Changes have not yet been made to address the identified areas for improvement.