Abdulrahman Al-Nachar

CS499 / 4-2

**Briefly describe the artifact. What is it? When was it created?**

The artifact I selected is my Travlr Getaways full-stack web application from CS 465. I originally created it in August of 2025 as a MEAN stack project using MongoDB, Express, Angular, and Node. The app lets users view trips from a database and provides an admin interface for managing trips.

**Justify the inclusion of the artifact in your ePortfolio. Why did you select this item? What specific components of the artifact showcase your skills and abilities in algorithms and data structure? How was the artifact improved?**

I chose this project because it demonstrates my ability to work across the full stack, designing routes, building REST APIs, and connecting to a database. For this enhancement, I added sorting, filtering, and pagination features to make data retrieval faster and improve the overall user experience.

**Did you meet the course outcomes you planned to meet with this enhancement in Module One? Do you have any updates to your outcome-coverage plans?**

I met the outcomes I planned for this enhancement, especially Course Outcome 4, which focuses on applying innovative tools and techniques in computing. The new backend logic made the system perform better and scale more easily, so there’s no need for any updates to my coverage plan.

**Reflect on the process of enhancing and modifying the artifact. What did you learn as you were creating it and improving it? What challenges did you face**

This enhancement helped me see how improving algorithms can make a real difference in performance and usability. Adding pagination and filtering gave me a better understanding of query efficiency and how to make backend logic more reliable. The biggest challenge was connecting the new query parameters to the existing server-side rendering without breaking anything, but through testing I was able to fix that. Overall, this enhancement strengthened my skills in backend optimization and structured data handling.