**Artifact 3 Narrative**

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**CS 499 Computer Science Capstone**

**Professor Brooke**

My capstone project involves refining a full stack web application called "Travlr Getaways," which was originally created in my CS 465 Full Stack Development I course. The project entails developing a static customer-facing website using the MEAN stack. To demonstrate my skills in the category of databases I decided to recreate and upgrade this hotel booking web application by implementing Mongoose to allow the application to interact with a MongoDB database in a Node.js environment, Add functionalities such as "Add Hotels," "View Hotels," and "Edit Hotel", using hotel data stored in the database and integrate a third party service called Cloudinary that allows user to store images in a cloud based server.

I chose to include this artifact in my ePortfolio because it showcases my skills and abilities in database implementation and management. Through this artifact, I was able to demonstrate my ability to use well-founded and innovative techniques, skills, and tools in computing practices through the following enhancements:

1. Implementation of Mongoose and the definition of a Mongoose schema for the Hotel model demonstrate my ability to structure and define documents in a MongoDB database.
2. The addition of forms to export user-entered information into a JSON file and upload it to the MongoDB database highlights my proficiency in handling user input and database interaction.
3. The inclusion of functionalities such as "Add Hotels," "View Hotels," and "Edit Hotel" further demonstrates my capability to perform CRUD operations on hotel data stored in the database.
4. Implementation of image upload functionality using Cloudinary showcases my ability to integrate third-party services for enhanced functionality.

With these enhancements, I successfully met the course objectives I planned to meet in Module One. The upgrades and improvements to the artifact align with the objectives of implementing databases using Mongoose, performing CRUD operations, and enhancing overall functionality. As for outcome-coverage plans, there are no updates at this time as the enhancements made in Module One align with the initial objectives.

Reflecting on the process of enhancing and modifying the artifact, I learned valuable skills related to database implementation and management using Mongoose and MongoDB. I gained practical experience in defining schemas, performing CRUD operations, and integrating third-party services. Challenges I faced during the process included understanding the intricacies of Mongoose and MongoDB integration, especially when defining complex schemas and handling asynchronous operations. Additionally, ensuring smooth integration of image upload functionality posed challenges, but overcoming these obstacles enhanced my problem-solving skills and deepened my understanding of full-stack development concepts.

URL for Artifact 2:

https://travlr-booking-app.onrender.com/