**Module Four Narrative**

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This artifact initially started as the Java webpage I first created while I was enrolled in the CS 250 course. Now this artifact is the next stage towards my completion to transform it into a fully functional website using full stack development. I have successfully connected my static HTML files from the last artifact, where I translated the Java webpage into a more complex HTML website. From here, I created a baseline using Express, so I can further progress and add the proper routing, controllers, as well as other important tools to help me advance to my final project. This artifact has been created recently, and I am progressively working on it daily. I wanted to include this artifact in my ePortfolio because I believe it showcases my skills in taking a static website to a website that I created using full stack development. I selected this item because I really enjoy creating websites and I am finding it appealing to be able to see my enhanced website from a local server using Express and being able to see it on the Google Chrome browser. One specific component of this artifact that helps fulfill the category for algorithms and data structure is my use of MongoDB where I am going to improve the data structure and I am going to implement a login screen that authenticates a user which requires me to utilize algorithms to ensure I am properly authenticating a user. I believe this artifact is improved because not only am I enhancing my artifact into a complex and functional website, but I am also offering added security that is desirable to the user. I did meet the course outcome I planned to meet with this enhancement. In Module One, I planned that this enhancement would satisfy my requirement for developing a security mindset by incorporating a login screen that authenticates the information provided by the user. The only update I have to my outcome-coverage plan is to implement that addition button that manipulates the databases so that I can fulfill the last course outcome that wants me to design and evaluate computing solutions by using algorithms and computer science practices. While I was modifying this artifact, one challenge I encountered was when I was in the process of making a local host connection to Express, my HTML static pages were giving me a hard time rendering and connecting like I wanted, but as I was trying to fix this problem, I was able to remember the importance of order sequences because there was a line of code that got accidentally pushed back and was not running in its designated time slot. I also accidentally moved a file into the wrong location while using Visual Studio Code and while I was trying to debug and run my application, I was running into a lot of problems that I was eventually able to figure out what file I put in the wrong location and quickly fix that small error. Additionally while I was completing the process of creating RESTful API endpoints and using MongoDB, I had some trouble creating the GET method to retrieve the data from one of the trips I listed because I did not set the location of the file right, thus resulting in many 404 errors until I meticulously set error and log codes until I figured out where the process failed. During this entire process, I learned that setting up log messages, creating error code functions, double-checking my file locations, as well as debugging practices really saved me a dozen times while I was enhancing this artifact.