

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

The original artifact I am basing my improvements on is the CS-465 travlr project, which was a full stack web application I created in July of 2023.

**2. Justify the inclusion of the artifact in your ePortfolio. Why did you select this item?**

I chose this item because creating a full stack web application would provide an excellent portfolio item for applying to web development jobs.

**3. What specific components of the artifact showcase your skills and abilities in software development?**

The artifact required me to use the MEAN stack, showing the ability to use a MongoDB database, angular frontend and node/express backend. As a part of that it also showed skills with Javascript.

**4. How was the artifact improved?**

My improvements to the artifact begin with using the Phoenix Framework and the elixir language. The Elixir language is a functional language which is quite different from Javascript, and more niche. The Phoenix framework likewise is very different from using the MEAN stack, and being less popular is more difficult to learn due to a paucity of resources. The artifact moreover has been adapted to a specific business use case relevant to my work in Insurance.

**5. Did you meet the course outcomes you planned to meet with this enhancement in Module One?**

Yes, I intended to use an innovative technique to deliver business value. I was able to do this by having the quotes display in a way which visually reflects their premium size. I did this by having the color and size of the text be reflective of the premium band the quote falls into. This means that quotes with larger premiums have larger text and a darker text color. This has the

effect of making the larger quotes draw the user's attention, allowing them to scan the page and quickly see which are the largest quotes.

#### **6. Do you have any updates to your outcome-coverage plans?**

Yes, I had originally intended to use boxes to display the quotes. However, I ultimately decided to use table rows as I felt this gave the app a more familiar and professional look. Moreover, it allows the viewer to scroll their eyes vertically to look at the different quotes, rather than vertically and horizontally. I decided not to show the brokerage or broker by color as I felt that this complicated the color showing premium and would ultimately be visually confusing rather than informative. Instead, I created views by broker and brokerage which can be accessed by clicking on any of the broker names or brokerage names in the quotes display. This allows the Underwriter to look at the quotes for a specific broker which is useful when calling the broker as a quick scan lets you know what the bigger accounts are that have been quoted to that broker.

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

In creating this artifact enhancement I learned a lot about the Phoenix Framework, specifically using the `.heex` template type which it uses. Creating the conditional logic for the quote display by premium size required using the ability of the `.heex` template to embed Elixir code. Moreover, in creating the broker and brokerage views, I learnt much about the way the Phoenix framework uses the `Conn` struct to hold information and manage the user's connection.

#### **8. What challenges did you face?**

One of the challenges I faced with the Phoenix framework is that it's very opinionated, which while good for maintainability makes the learning curve steep for beginners. Moreover, in contrast to more popular frameworks like Angular, Node/Express and React, the Phoenix

framework has a paucity of learning resources. This is complicated by the fact that changes to the framework make previously good resources obsolete.

<b>Checkpoint</b>	<b>Software Design and Engineering</b>	<b>Algorithms and Data Structures</b>	<b>Databases</b>
<b>Name of Artifact Used</b>	<b>Artifact Name:</b> TravlR, travel full stack application Origin: CS-465 CS-465 Final Project	CS-465 Final Project	CS-465 Final Project
<b>Status of Initial Enhancement</b>	Complete	Complete	Complete
<b>Submission Status</b>	Submitted	Submitted	Submitted
<b>Status of Final Enhancement</b>	Complete	Complete	Complete
<b>Uploaded to ePortfolio</b>	Yes	Yes	Yes
<b>Status of Finalized ePortfolio</b>	Complete	Complete	Complete