**Assignment 4B – Overview – Kevin Tran**

Initially, I found this assignment to be challenging. I have never learned or seen React before. It was a big jump trying to understand components, props, state and effect. Before starting the assignment, I spent some time reviewing React and the different pieces of it. I found a guide on getting started with React that helped with me because it broke down the parts and gave a good explanation of them. Also, the React Developer Tools plugin that we downloaded was very helpful with showing how the different parts were interacting with each other.

I knew that if we wanted to store the previous stocks that it would have to be in a list. After that, I thought it would be a good idea to have a separate component to store the previous stocks. When I was thinking about when the previous stock should be stored, I decided to use a `save` button.

Looking at the 4A that we have built together, I was still confused about props. In StockPriceHistoryDisplay, we had props.history in the second argument. I had no idea where this props.history was coming from! After some searching, I noticed there was also props.history in our JSX in StockPriceDisplay and I decided to play around with it. After some time, I figured out that the .history was just any name we could give it. In the historyOnClickHandler, there is props.stock which I was also confused about. This is where the React Developer tools really helped me understand props and the names that we have assigned to it. It also showed me my component that I created after and made sure that the array of the previous stock was being passed.

I understand that props pass data, but it is one way and read only. Another challenging part that took some time to grasp was the useState hook. After reading that guide on state it made much more sense. I learned that state is data that can be modified. This made much more sense after looking at the React Developer Tools when I clicked the save button. It showed both states (the stockData and the array for previous stocks) and when we fetch another symbol, the stockData state changes. A problem that I ran into was trying to add an item into our array of previous stocks. At first, I tried .push which it did add it to my array, but it would crash my app with the error: “props.array.map is not a function”. After a google search, I found an article that covers adding items to an array in React state. I learned that .push tries to change the state directly to my array. Instead, I needed to pass the updated state to my setArray. This can be done with .concat, which in the end worked for me. I also learned that state is immutable meaning we cannot change its value(I mentioned earlier how props are one way read-only).

In total I spent around 15-20 hours trying to understand concepts and writing the code. I tested my app primarily with logging and the developer tools. I believe that I have the requirements needed. Overall, I felt that I have learned a lot with this app. It was a good entry example with React and component based architechture.