## Week 4: Research

Promineo Tech

Hollis, Jonah

**Instructions:** As developers, research is a constant part of our job. A common saying is that 90% of software development is Googling, and while that is an exaggeration, Google is a highly used tool in the role. This Research assignment is meant to go beyond the course curriculum and increase your understanding of relevant topics while exposing you to online resources you'll frequently use on the job. Please write a paragraph for two (2) of the above prompts and include URLs from where you found the information to cite your sources. Do not copy and paste text from the internet or any other source; use the information you find in your research, summarize, in your own words, the concepts. Plagiarism will result in a zero for the assignment as well as disciplinary actions.

## **Prompts**

1. What are the differences between callbacks and promises?

**Answer:** Promises are returned objects in JavaScript which you can attach callback functions (i.e. .then(callback function here)) to during asynchronous coding applications. As a result, using promises prevents creating confusing, nested code and allows for greater readability. Callbacks are functions that are passed as arguments into other functions. Without using promises, nested functions using callbacks would likely be necessary.

## 2. How does a promise work?

**Answer:** After a called object as been returned, the promise then initiates the functions chained to the object in order of their appearance in your code. This ensures that only after the object has been returned can the chained functions execute, and will only execute after each previous function has been called. This methodology creates a more legible experience for any engineer who might later read your code, and prevents having to use nested callback functions.