**CSE 310 – Applied Programming**

**Module Plan**

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| **Name:** | Kepler Ridge |
| **Date:** | 9/23/24 |
| **Teacher:** | Brother Birch |
| **Module # (1-5):** | 1 |

1. Identify which module you have selected to work on. Place an “X” under the “Selected Module” column.

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| --- | --- |
| **Modules** | **Selected Module** |
| Cloud Databases |  |
| Data Analysis |  |
| Game Framework |  |
| GIS Mapping |  |
| Mobile App |  |
| Networking |  |
| SQL Relational Databases |  |
| Web Apps |  |
| Language – C++ |  |
| Language – Java |  |
| Language – Kotlin |  |
| Language – R |  |
| Language – Erlang |  |
| Language – JavaScript |  |
| Language – C# |  |
| Language - TypeScript | X |
| Language – Rust |  |
| Choose Your Own Adventure |  |

1. At a high level, describe the software you plan to create that will fulfill the requirements of this module. This may change as you learn more about the technology or language you are learning.
   1. I want to create an object and overload the comparable operators (although I know this isn’t natively done in TypeScript)
   2. After creating the objects, I want to implement some sorting and searching algorithm functions. I will add more or less depending on the size of the project.
2. Create a detailed schedule using the table below to complete your selected module during this Sprint. Include details such as what (task), when (time), where (location), and duration. You should also include time to work on your team project. You are expected to spend 16 hours every Sprint working on your individual module, team project, and other activities. Time spent on this individual module should be at least 10 hours.

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|  | **First Week of Sprint** | **Second Week of Sprint** |
| **Monday** |  |  |
| **Tuesday** | Read about TS and when to use it, 1 hour, at home | Create a merge sort function to sort an unordered list of objects, 2 hours, at home  This will use recursion |
| **Wednesday** | Setting up environment and familiarize myself with how to generally write in TS, 2 hour, at home | Create a binary search function for the newly sorted list, 2 hours, at home |
| **Thursday** | Create the object and find a way to mimic the behavior of mimicking overriding, 2 hours, at home | Debugging and refactoring to make sure there are no errors from TSLint or anything, 2 hours, at home |
| **Friday** |  |  |
| **Saturday** |  |  |

1. Identify at least two risks that you feel will make it difficult to succeed in this module. Identify an action plan to overcome each of these risks.
   1. The biggest risk or challenge I think will be environment setup, although I am used to python, and I think most environments are probably easier to setup than that. My action plan for that is straightforward, I will either utilize ChatGPT or my best friend works in the industry and is almost exclusively writing TypeScript so he may be able to help me.
   2. The other risk I think may come up is creating objects in the correct way. As I have learned more languages I feel like creating objects in the correct way is one of the most tedious things to figure out. This is something that either TypeScript docs, people I know, or once again ChatGPT could help me out with.