**CSE 310 – Applied Programming**

**Module Plan**

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Module # (1-3): 2

1. Identify which module you have selected to work on. Place an “X” in front of your selected module.

Cloud Databases

Data Analysis

Game Framework

X 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

Language – Rust

1. At a high level, describe the software you plan to create that will fulfill the requirements of this module. Describe how each requirement will be met. This may change as you learn more about the technology or language you are learning.

A modular web application utilizing the Google Maps JavaScript API as its core mapping engine. The markers are created from a dataset recreational locations stored, where each location object contains GPS coordinates, category information, ratings and detailed metadata. Using the Google Maps Marker constructor, each location is rendered as a custom marker. The filtering system operates by maintaining an array of all markers.

1. Create a detailed schedule using the table below to complete your selected module during this Sprint. Include the task and duration for each day. You are expected to spend 24 hours every Sprint working on this individual module and other activities in the course. Time spent on this individual module should be **at least** 12 hours.

|  |  |  |
| --- | --- | --- |
|  | **First Week of Sprint** | **Second Week of Sprint** |
| **Monday** |  |  |
| **Tuesday** | Exploring free public APIs. Learning about API keys and authentication basics **– 4 hours** |  |
| **Wednesday** | Google Cloud Console setup and API key creation. Creating your first basic map with a single marker **– 3 hour** | Create advanced map features. Create info windows and popups for markers **– 3 hours** |
| **Thursday** |  | Adding basic CSS styling to make the map look professional. Organizing location data in JavaScript objects and arrays **– 5 hours** |
| **Friday** |  |  |
| **Saturday** |  | Combining all learned concepts into one cohesive project. Final testing and bug fixes. Project documentation and code cleanup – **5 hours** |

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.

* If the API setup is not done right, there may be some unnecessary cost incurred. I need to review the configuration well so API limit on free plan is not exceeded
* Information overload can lead to getting lost in all the resources available to me. I need to focus more on understanding the basics and using that knowledge to gain experience. Only going back when more assistance is needed