**CSE 310 – Applied Programming**

**Module Plan**

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| **Name:** | Zach Newby |
| **Date:** | November 13, 2023 |
| **Teacher:** | Jeremiah Pineda |
| **Module # (1-6):** | 5 |

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 | X |
| 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 |  |
| 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.

My goal is to create a program that will allow me to analyze and display data from the [Palmer Penguin Dataset](https://www.kaggle.com/datasets/ashkhagan/palmer-penguins-datasetalternative-iris-dataset/), (which was compiled from research on penguins by Dr. Kristen Gorman and the Palmer Station and uploaded to Kaggle by [Ashwani Rathee](https://www.kaggle.com/ashkhagan) for data visualization and exploration) and answer the following questions about the penguins recorded:

1. On which of the three islands (Dream, Biscoe, and Torgenson) were penguins with long flippers greater than the average length for the species most common?
2. Is there a correlation between penguin bill length and depth? And if so, what species and island had the penguins with the largest bills? (Both deep and long)
3. 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 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.

Note: By hours I refer to hours in the pomodoro focusing technique sense of 25 minutes of work followed by 5 minutes break, with 1 hour consisting of at 50-60 minutes of work or two pomodoro periods

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|  | **First Week of Sprint** | **Second Week of Sprint** |
| **Monday** | At least 1 hour – create a plan, determine database, and begin setting up a project | 2 ½ Hours – Continue developing data analysis and visualization program |
| **Tuesday** | 2 ½ Hours – research and learn how to use Python data analysis Libraries | 2 ½ Hours – Continue developing data analysis and visualization program |
| **Wednesday** | 2 ½ Hours – research and learn how to use Python data analysis Libraries and Complete at least one side assignment from this module or the previous | 2 ½ Hours – Prepare program for submission, final bug testing and Complete at least one side assignment from this module or the previous |
| **Thursday** | 2 ½ Hours – research and learn how to use Python data analysis Libraries | 2 ½ Hours – Prepare program for submission, final bug testing |
| **Friday** | 2 ½ Hours – Begin developing data analysis and visualization program | 2 ½ Hours- Final preparation and submission, fill out document, record demo, populate readme |
| **Saturday** | Extra time – if needed | Extra time – if needed |

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.

In the previous module, I experienced setbacks with modules not working properly, I am not sure how to prevent that other than using popular, well supported modules with few bugs such as pandas.

I also struggled with time management and prioritization, and the only solution I can think of is to prioritize this class above all else but scripture study and ensure I get enough rest to complete all of my assignments on time.