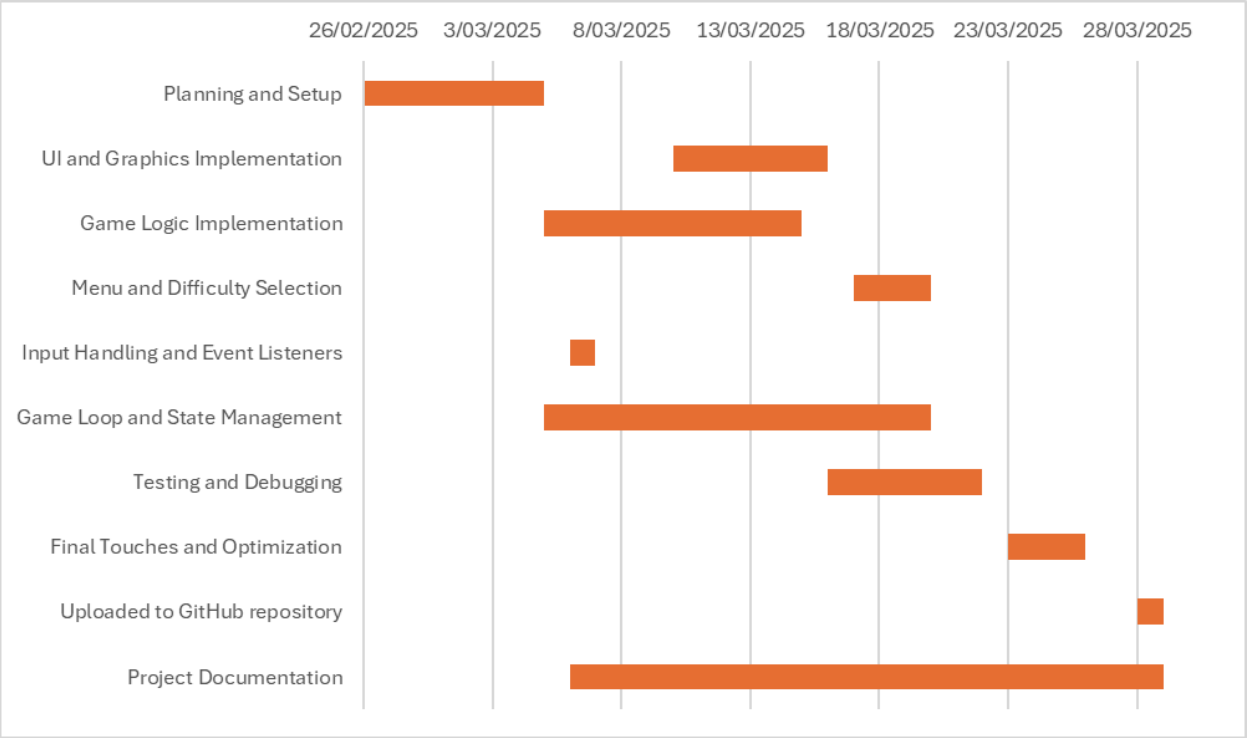
Assessment Criteria #1:

Gantt Chart, Resource Allocation, Budget, Workforce, Storyboards, Justification

Gantt Chart:



Resource Allocation:

Throughout the development of this digital project, designed with the goal of educating younger generations about software development terminologies and vocabularies, many online resources were effectively utilised to fulfill this goal of education and to build the foundations of this game. The use of the **Pygame** library was strictly chosen due to its lightweight memory and RAM storage and its highly advanced methods for rendering graphics, detecting user inputs such as mouse clicks and movements and event management. Furthermore, the use of mostly pre-created assets from online tutorial from Tech With Tim allowed for the developer's time to be handled to be utilised to the fullest extent, with time being strictly used for coding the project rather than handcrafting assets or using generative AI for these assets.

Budget:

The budget allocated for the creation of this project was strictly **free** without any need of financial funding. Thanks to free open-source libraries such as Pygame that are extremely lightweight and are practically capable of running on any device that support **Python** code and assets pre-created by Tech With Tim, no money was needed to be spent on these particular aspects of this project. Furthermore, the word lists for each difficulty were handcrafted by the developer with the terminologies being taken from free digital sources such as online dictionaries and articles.

Workforce:

The workforce for this project was strictly developed only by **one developer**. As such, all roles not supplemented by other online sources (such as the role of **artist**) were solely partaken by this developer. Examples of the roles needed to be taken to create this project were **UI Designer**, **Main Coder** and **Playtester**.

Storyboards:

While there was no explicit story told due to the game's highly simple nature and primary goal of educating younger generations, a storyboard can still be identified within the design of the game. The designing of the main menu and game screen all required the development of wireframes before coding these interfaces into the game. Furthermore the positions and functions of the “Play”, “Difficulty” and “Quit” buttons all required planning before fully implementing into the code of the game. As such, storyboards for these elements were all utilised to aid in the development and implementation of these features within the game.

Justification for Programming Language:

During the main development of the code for my rendition of the classic Hangman Game, I (the sole developer) of the game had chosen to use Python in combination with the Pygame library due to their flexibility and specialty when creating such a program, widespread availability and readability of the language. Python allows easy and quick development of small games like my Education Hangman Game as it supports a vast amount of libraries such as Pygame, allowing it to be considered an extremely flexible language. Python allows for functionalities such as randomisation, file handling and Graphical User Interfaces to be implemented extremely easily with the use of its many pre-installed and community-made libraries. Furthermore, Python and pygame are both extremely lightweight applications that do not require much dedication from the system such as allocating memory and RAM use. As such, Python is extremely widespread throughout coding communities as even low-end devices can run such a coding language. Finally, python is extremely readable by human developers compared to many other programming languages, such as Java and C#. Python is coded with an extremely clean and simple syntax that allows developers to quickly and efficiently learn these formats of this language and start producing more applications coded in Python themselves. For example, coding in Python does not require a semicolon at the end of each line unlike many other programming languages. As such, all these reasons have influenced my decision to use Python when creating my rendition of the classic Hangman Game.