Assessment Criteria #3:

Planning techniques, Risk management strategies, Divide-and-Conquer techniques

Planning techniques

Throughout the development of this educational take of the classic hangman game, I have always had the goal for the game's design purpose to be for teaching computer related terminology to younger generations of students such as juniors and primary schoolers. As such, it was always meant to be a simplistic game with simple gameplay loop and consisted of a small scope of features - with the most advanced aspects being difficulty and a back button. However, even with this much smaller workload compared to the development processes of other games, each feature still required extensive planning on how I was going to implement it due to me being a sole developer for this project - making processes such as **divide and conquer** much harder.

Risk management strategies

Throughout the development of this educational hangman project, many risks regarding player experience and the overall health of the project had been identified and quelled to the best of my ability. For example, the tutorial I followed to build the foundations of this project had strictly defined the screen display to be 800 pixels wide and 600 pixels high. Due to such a small capture, people could easily become disinterested within the project as it could look unpolished and unfinished because of such negligent design. As such, to maintain the health of the project and make it look professional, I changed it so it will always display in fullscreen mode, with the drawn buttons and elements on screen being scaled and moved appropriately according to the player's screen resolution. This in turn provides a much more immersive experience, as the entire screen is fully used to running and playing the educational hangman game.

Furthermore, another problem I found that was potentially harming the overall experience of the game was misclicking the back button. Players could accidently click the grey arrow button in the top left corner and be left confused with why they have just received a loss and how they are back at the main menu - especially since this program is for young students who are developing vocabularies. As such, I fixed this issue by making the back button display a noticeable and easily readable warning message to the player, not continuing and going back to the main menu unless the button is clicked again. This way, it will save players from accidentally misclicking this button and ending their games unpurposefully and as such being dissatisfied with the overall quality of the game.

Divide and Conquer techniques

Throughout the development of the code for this educational rendition of hangman, it is evident that the divide and conquer strategy had been utilised to make the game run most efficiently and have the code be extremely organised. Numerous functions splitting off from the main game loop is an example of divide and conquer being used, with game logic not being constrained into one large loop. Instead, the workload of the game loop has been **divided** to easily manageable and debuggable functions that can easily be read by humans. As such, the same function had been **conquered** more efficiently than if no division of this game loop had occurred.