In the development of the game project, I integrated three key extensions to enhance gameplay and user experience, guided by the final topic tutorials. These extensions include the addition of sound effects, the creation of platforms, and the implementation of enemies. I faced numerous challenges and managed to overcome the issue by eliminating the errors by stages. This experience has allowed me to learn and improve my skills.

Firstly, I implemented sound effects for the character movements using the p5.js sound library. This involved sourcing appropriate sounds and integrating them with the actions for the game character from https://pixabay.com/, https://mixkit.co/, and https://www.fesliyanstudios.com/. The platform extension allowed for a more interesting and challenging level design. Utilizing a loop function enabled the generation of platforms at different heights of the game making the game more engaging for the player. The Implementation of enemies inside the game are possible by using a constructor function, which added a level of difficulty and interaction of the player towards the game.

During the integration of platforms, I faced a problem where the platform would not detect the game character, making it impossible to stand on top. Additionally, determining the right height level of each platform also required testing. I overcame this issue by slowly debugging one element at a time. Initially, I attempted to change the y-level of the character when falling which cause the character glide and jump higher, which will made it easier for the character to land onto the platform. Then, I try to pass in new x-axis value for the character which made the platform function to be able to detect the x-value of the character, with this approach I can solve the bugs and the character could successfully land on the platform.

In conclusion, some of the skills that I have gained from doing this project include learning how to use a construction function, implementing audio inside a game, learning how to utilizes loops, arrays and nested arrays and learn how to write a readable and clean code. Aside from programming, I also trained my soft skills such as critical thinking, creativity, and patience. this game project has allowed me to learn and integrate the sounds, platforms and enemies extensions, with appropriate elements and consideration which made the game interesting and as a result has trained my soft skills.