# Intro

This assignment was to create a 2d game with the S2D framework, this game was to be inspired off the pacman game, which was popular in the 80s. This was to cover animation, movement, sprites, collisions to get the programmer comfortable with coding in C++ and using the S2D framework.

# Main

In this project, a few things went quite well, such as collision detection with walls, cherries, munchies, and ghosts. The programmer applied 2D arrays to hold locations to the walls and munchies which then is drawn and checked through a for loop which greatly benefitted ease. Implementing this was not too hard using C++ libraries which allows the programmer to access the coordinates of the mouse, this was later applied to use button for the main menus. Animation and creation of sprites was also a good part of this project which was all created from Piskel. Animation was fun to work on as it was all new to the programmer as previously, they would have used a placeholder item to display the characters place. this meant animation has greatly Improved the experience of their game and can be applied to other projects.

Saying this, the ghost AI was not able to be created in time due to the size of the project, this will be worked on in the future as it would enhance the game further, especially giving the ghosts different personalities like the original game. An error does exist in the game where the player can move through a wall if they are touching another, which the programmer did not have enough time to fix. Next time the programmer should focus more on the key game loop, this includes ghosts moving around the map to add a challenge.

With this project, the programmer has felt like knowledge on animation, how box collision, and even the basics of C++ and applying it to a game. This is a huge benefit as the programmer was new to C++ and feels like creating this game has expanded their knowledge. Saying this, learning more about AI will be the next thing to learn, especially path finding. Additionally, learning more about how to create a framework will be interesting.

# Conclusion

To conclude this project, the programmer feels like the project has been a success despite not covering all the features he would have liked e.g. scoreboard. This project has included multiple things in a new language that is different than the language that the programmer is most comfortable with is python. Overall new ideas and concepts have been applied well according to the programmer and they will continue to work on this project to further enhance the game’s experience and challenge.