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| Sunderland University |
| 2D Game Development |
| Using Allegro5 and C++ |
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# Game Proposal

My game is going to be a crossover between a brawler and a platformer. The game will feature many smaller enemies the player must fight off in order to gain points before defeating the final boss and completing the game. The projectiles fired by the boss will follow the player and be able to collide with the platforms. This will force the player to have to go below the platforms at some point in order to avoid the arrows. The player will have a health gauge and the game will be lost if the players health is reduced to zero. The player will still get a score and be given the option to retry.

# Game Proposal feedback

Upon proposing the game to Rowan (The client) and discussing the idea with him, he suggested that the idea sounded much like a boss fight in any other game. The idea could be used in a game with levels with that being the final stage in order to be the boss. He also suggested some other ideas such as having a blowback from being too close to the boss and having only some of the platforms be able to collide with the arrows forcing the player to go further down. Having taken this feedback on board I went and started to plan out more ideas.

# Development

## Development Strategy

My idea for developing the game is to start with the boss fight and make all of the game mechanics work there. From here, the mechanics should be in place and it should just be a matter of making more levels with tutorials for the player to play through before getting onto the final fight. This also means if things do not go according to plan, I will have a game due to the boss fight being a small mini game in its own right.

## Development issues

Upon developing the system, there were some issues that needed to be corrected in order for the game to work. One of these issues started with the collision for the platforms on the player. The platform refused to hold the player or when it did it would move the player into the platform and then out of the platform above it. I since realised this was some calculations I had messed up meaning the bottom of the player was colliding with the bottom of the platform instead of the top.

The next issue I have come across is that the player is able to go off the screen by being hit by an enemy. In all other cases, the player is unable to go off screen however if an enemy hits the player, the player is able to leave the screen. The player can easily be brought back to the screen by moving the character in the direction that would take him back onto the screen however I was unable to resolve this issue during the development cycle.

# 3.1 Conclusion

Upon concluding creating this game, if I needed to do a similar activity again, I would go back and possibly try an object oriented method. This seemed to be easier and also seems to make a bit more sense than trying to get everything on one page. This would also make it easier ot make more changes. I would also put more thought into the beginning of the project in order to correctly make the game. As it stands, the changing of states does not do much other than erase everything for other functions to reinitialise within the other functions. This means that instead of changing within the “Change state” function, it is changing in a function it should not be changing in. Also I would probably add in a few more features given the opportunity.