**Evaluation – Student : 2721301**

**The good**

Overall, I am quite pleased with how I implemented this game and fairly satisfied with how I carried out each element that was required.

I am pleased with my animations as I think they fit in to the game well and makes it feel active. I think I have done well with transitioning from one animation to another due to an event in the game such as taking damage, and I am overall pleased with all the animations I have incorporated. I think I have a good array of different sprites, each with their own purpose within the game such as the scorpions which will damage player on collision, or the coins that increase score on collision. All the sprites interact with the environment as they should, my character stays above the ground and does not phase through any tiles. The scorpions move as intended back and forth within their areas, guarding a coin. I am pleased with my collisions between sprites as it is accurate and I have yet to see it malfunction, the hitboxes with the sprites are very close to avoid unintentional damage when not actually touching. Reaching the end goal and colliding with the second dinosaur works properly and accurately.

I am satisfied with the sounds included withing the game, I think they really add to the atmosphere and makes it more enjoyable. I think the sounds I used correlate with the action involved well such as my upgrade sound, trying to upgrade without any coins available, and the pickup of coins is very satisfying giving the player a sense of progression. I think I have made a good decision to use an echo filter in the cave map as it adds a lot to the atmosphere as it feels you are in in the cave with an echo.

I have included all the required event handlers, such as keyboard and mouse, and they all play a vital part within the game. The mouse is required to navigate the menus and keyboard used to control the main sprite. I think I have made good use of mouse handler as navigating through menus and upgrading the character is very accurate and easy, and I have not come across any problems with it.

I feel that my maps are well laid out and provide players with multiple different routes to go down, as sometimes one route can be more dangerous than other. I have incorporated two levels and I think the game flows between them very well, the sprite first starts off in an outside environment and heads to the goal sprite which is within a cave, once this level is complete the next one then starts off within the cave. I am particularly happy with the background within this cave as there are holes in the wall where the outdoor background can be seen, as it is layered on top of it.

I am happy with the different features in the game such as the upgrade menu, where the player can spend coins to upgrade their character and then move on to the next level with these upgrades. On completion of the game the player can then go back to the first level with these upgrades, I think this feature adds a good element of replay-ability and there is an incentive to create an overpowered character. I am happy that my game is greater in size than the window size, and the world moves around the sprite as it progresses in the level, and I have made a good effort to implement most things discussed within the lectures.

**The bad**

I think my game can do with some improvements however, first of which being character direction. Currently the sprites can walk in both directions but will only face one direction. The game would be better if the sprite would always face the direction they were walking. I think I could have also done with different kinds of enemies instead of just the scorpions, to make the game a bit more exciting.

For my collision detection I could have added some more advanced detection. If the player touches a scorpion, they will just take damage, but I would have liked to implement a way of defeating these scorpions without taking damage, such as jumping on their heads. The game could use some more sprite transformations as I only use scale. I could make the game more interesting by adding, for example, a summersault feature on jumping using the rotation. I should also have added a limit on the upgrades the players can carry out as they can keep going forever, and if the speed gets too fast the collision detection does not work properly, as they can run through walls sometimes.

Something that I picked up on too late is the placement of my sprites. It would have been more efficient if placed them on tiles through the map.txt file however I just coded in their positions using an array, which took a bit of time to implement and calculate where to put them.

My game contains a full screen feature by clicking F, however this is very buggy and only rarely works, often messing up my screen resolution causing the user to fight back with task manager (the screen can be restored by pressing “c”).

I should have also spent time figuring out how to make the screen more scalable as it is just stuck on the resolution I have set it at. It would have been better if you could resize the window and the game would move along with it.

I could have created a more complex sound filter and spent more time on it, however I thought it was a good decision to use the echo filter as the character is in a cave.

My backgrounds could have used some parallax scrolling as It would really make the environments look better, however this is something I did not put in the time to implement.

I should have added pause menu as there is no way to pause the game without completing the level.

**Hidden features**

There are some features within my game that may not be immediately visible.

* The main sprite can gather coins and then use them to upgrade their stats withing the menu, before progressing to the next map.
* The health indicator will turn red if the characters health falls below a certain threshold.
* There is a fullscreen feature as discussed before however this does not work as intended.
* The sprite can walk off a tile and can still jump, the sprites jump will only be used if they jump off a tile, it cannot then be used in the air after that.
* The level can be complete by reaching the other dinosaur sprite at the end of the map.
* There is an easy mode within the game that can be used to test the game without taking damage or dying, this can be enabled by pressing E and will play a sound for confirmation.

**Extension**

I think my game can be extended better by adding the things I discussed in my “the bad” section. It would be a good idea to add an attack button and animation for the dinosaur so it can fight back with the scorpions. I would like to add more maps, that could be a bit more interesting or larger, and have them flow so the character gets deeper into this environment chasing the other dinosaur. I would like to add more interesting upgrades for the characters such as weapons or health upgrades, and I would also like to add more enemies and perhaps a final boss stage. I would like to add a good sound filter that corresponds to the current map to add to the environment.