IT prototype by Jiefeng Zhen and Miles Pennifold

The timeline of our progress, the first week we have revised the library of pygame, however Jiefeng was able to find a better library called pyganim which was a good library for play image in a loop. Second week Miles were making the projectile and I was working on the new library and learned from the examples provided from the website. The Third week Miles was working on the pet and enemies following and I was about to learn all functions that the library could do, it was a small library, I also working on other feature that was not necessary for the prototype, however it was for the survey purpose. The last week we were putting every together. However due the work load from other course, we both could not provide to what we were planned in four weeks.

**Problems**

Make multiple objects not for common functions in a loop, make a certain number of enemies in more efficient and I have overcome the problem by using the dictionary to store list of object and able to make objects to behaviour differently.

Image default alpha, this problem took me long time to solve, image cannot turn alpha, with Edwin’s help I know that there was default alpha values for the image, I have overcame that problem by converting to image to pixel images and set the black as transparent for the background and therefore I was able to make images transparent.

With software both of us had to re teach ourselves how to use pygame as neither of us had used it since last year. Therefore the beginning phase of the programming went a bit slower than we had anticipated. Some problems we had when coding the game was with the pet class, as we tried to get it to follow the player’s movements we found out that its primary role in the game or its function for the game might change over time. Therefore we decided that we would have the pet move around the player as its own entity rather than having it as part of the player. Also with the projectile system we had to work out how to create a loop that will create objects whenever a event happens. In this case when we pressed the letter C. We also needed to create a velocity for the class rather than a constant changing y and x value. This was so we could change the speed of the projectile with ease as this might become important in the later stages of the games development. We also had some problems with the collisions between the player and the created obstacles, this is however only a minor problem and will be fixed within due time.

(Please take note that images used within the current version of the game are not the images that will be used in the final product).

**Current Features**

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| --- | --- |
| Current Features: | Function |
| Map | Randomly generates obstacles around the map every new game |
| Projectiles | Able to fire a object in the direction of the current mouse position |
| Enemy | Enemy is able to move around independently, if enemy collides with the player the player will take damage, if the enemy health reaches 50% or lower it will change image (this function will be used to more extent later on). |
| Pet | Will move independently however follow the player’s movement alongside its independent movement. |
| player | Player could move independently and at different rate by pressing shift and arrow. It is in Game.py file |

Original feature list

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| --- | --- | --- |
| Team members | Jiefeng Zhen | Miles Pennifold |
| Contributions | * Interactions   + Attacking   + Defensing   + Special effects of powers * leveling up and replacing unique features * pets   + level up   + foods   + transformations   + help the hero * equipment store   + clothes   + shoes   + potions   + special potions * surveys   + let people play our and selectively accept the opinions   + record the emotions of the players’ face (especially the occurrence of impatience) | * Map   + Obstacles   + Environmental effects * Monster Artificial Intelligence (AI)   + this would increase the difficulty   + dodge   + special powers * special level up effects   + let people feel the accomplishments * surveys   + let people play our and selectively accept the opinions   + record the emotions of the players’ face (especially the occurrence of impatience) |

Original plan

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| --- | --- | --- |
| **Deliverable** | **Duration** | **School Weeks** |
| Basic functions which includes hero and monsters with AI interactions, character skills and special effects | 1 Weeks and a half | Week 4 |
| Completion of map, characters level ups, replacements of new powers and difficulty increment | 1 Weeks | Week 5 |
| Cool and hard features which including pets, more intelligent on monsters, more cool magic or skills and equipment store | 4 Weeks | Week 9, during Week 6 we will try to makes as many feature as we can, however at this stage our game should work with minimum requirements |
| Do survey by letting varied of people to play our game and improve the game | 2 weeks | Week 11 (the survey will start after the feedback from the Young ICT Explorers competition) |
| Adding more cool features and unimaginable ideas to the game | 5 weeks | Week 16 (plenty of time for any delay of the plan, unexpected difficult problems and cool ideas. The time will also include the test week and assessment tasks from other courses, therefore the time is not going to be too much) |

Not Completed:

Some functions we have not completed for the proposal are the level up system and the health bar, the reason for why the lv up system was not included was that we felt it unnecessary for the current version of the game and can be simply added on at a later point of the project. For the health bar we had a similar conclusion as we felt for the current product it was not a necessity and that it was more of a add on that can also be added on later down the track.