Interactive Media Teamwork

Managing Projects with GitHub

Thomas Abela

2HNDi

Task 1 – P1.1 – Identify Client Requirements

This project follows the development of my Unity computer game created for the CIDP assignment. From the beginning I already had an idea of what kind of genre of game I wanted to make, and so the functionalities I determined for the game were based on that decision. I wanted the game to be a sort of 3D platformer where you control a character that can explore a virtual world. These functionalities must reflect that genre. The following requirements were determined:

The game must have -

1. A well animated character with precise movement controls.
2. A relatively large, open area of terrain for the player to explore.
3. A time-based objective. The player must complete a task before a certain amount of time expires.
4. Different collectibles spread throughout each level.
5. A smooth third person camera which allows the player to zoom in/out of the character and rotate the camera around the character.
6. A Health Bar with various collectibles affecting its value (Positive or negative).
7. While the game is intended to be played with a keyboard and mouse, an alternative set of controls should be implemented for mobile. For this reason, the option of on screen UI should be included to accommodate touch controls.
8. The main menu should reflect what kind of game this is. Therefore it should not be a static image but be based in a 3D environment with animated elements.
9. Level music is an important element to 3D platformers of the past such as Crash Bandicoot or Spyro the Dragon, which this game takes inspiration from. The game must have upbeat level music and sound effects to accommodate this requirement.
10. The game must have some convey an educational message, which has been determined to be Recycling awareness.

Task 2 – P1.2 – Define and Analyze target group to identify user needs.

In order to familiarize ourselves with GitHub, I will define the following terms in relation to GitHub tools.

**Repository**

A place where your code is stored. Each project you create must be contained within a repository. To create one, go to your GitHub account and go to the repositories tab and click New. Repositories can be public or private, however free accounts are only allowed to create public repositories, meaning anyone is able to find and access the code. So make sure your projects do not contain any sensitive information.

**Commit**

Committing is the act of taking all the changes you have made to a project and then recording them. This can be done as many times as you like, after which you can then push those changes onto the GitHub server, where you project’s repository is stored. One of the benefits of tracking commits is that it allows you to roll back to a previous version of the project if necessary.

**Issue**

Issues can be questions, tasks or suggestions made by individuals relating to your repositories. Remember that if your repository is public then anyone can see your project, and they may have queries regarding certain areas of your project. Whenever an issue is created, it opens its own discussion forum where the repository collaborators are able to discuss the issue with the person/s who submitted it.

**Sync**

Sync is the act of making sure that your local branch matches your remote branch of the project. If your local branch contains commits that your remote branch has not incorporated, then it will push those changes onto the remote branch. Likewise, if the remote branch has additions that the local branch does not, it will pull those changes onto your local branch. Sync basically ensures that your local and remote branches mirror each other.

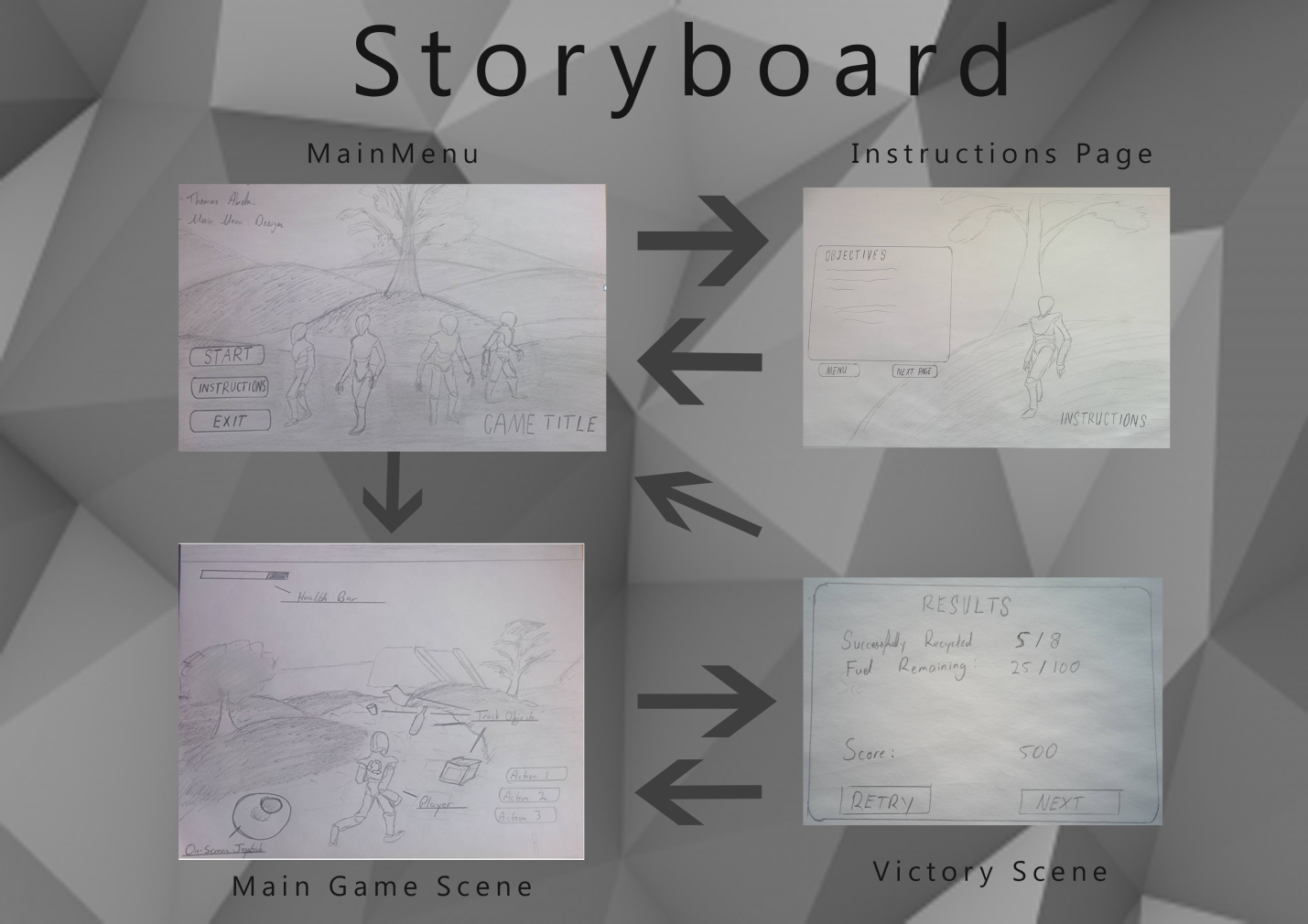
**Add**

Add is an option which allows users to add more buttons to a repository. Once this has been done, the user can commit the data and any changes to the remote branch via Sync.

**Pull Request**

Users can make changes to a project and then submit them to the repository collaborators as a proposed change to the repository. This is known as a pull request. The user who makes a change to the project can open a pull request, and the repository collaborators can then open a discussion forum to review the change. The collaborators can either accept or reject the change to the main repository.

Task 3 – P1.3 – Clarify creative intentions through recorded communication with client.



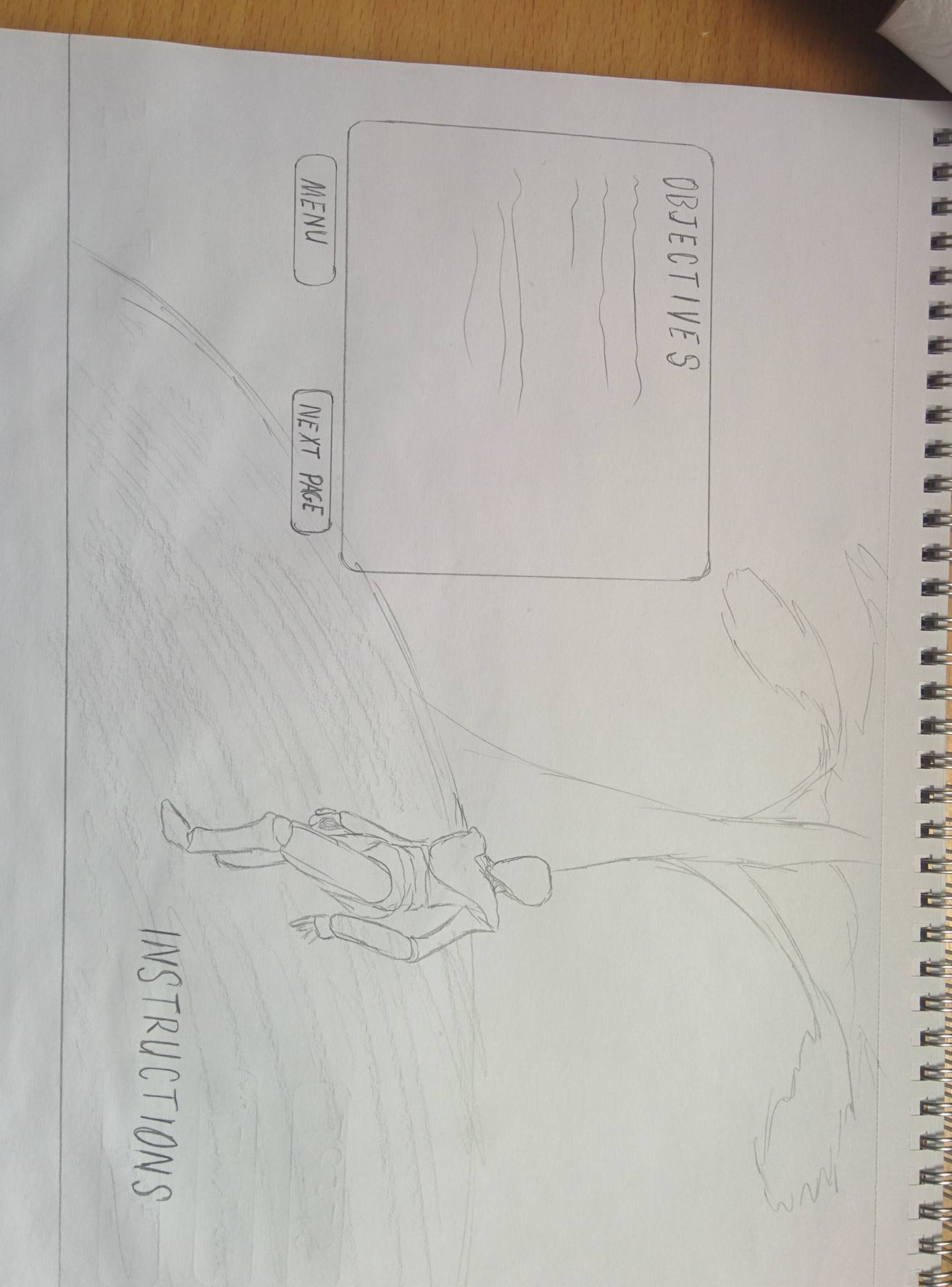
**Link to relevant commit**  
<https://github.com/Tabela91/IMT-Assignment/commit/de137b6ac687192af36e91a04b0aaf08686b5947>

**Main Menu**



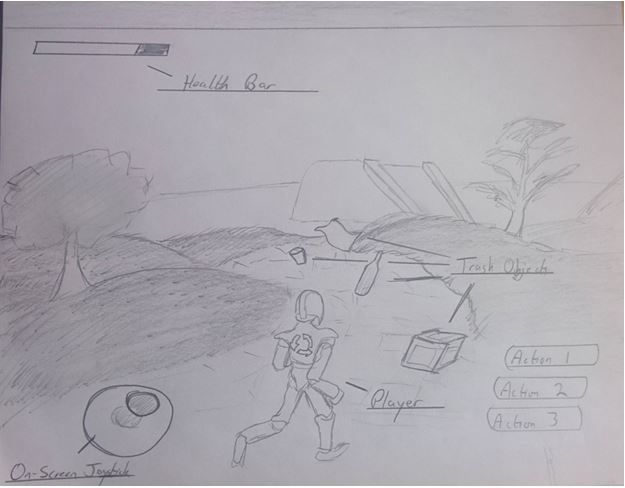
The main title screen will have animated models and offer three simple options, to start the game, go to the instructions page or quit the application.

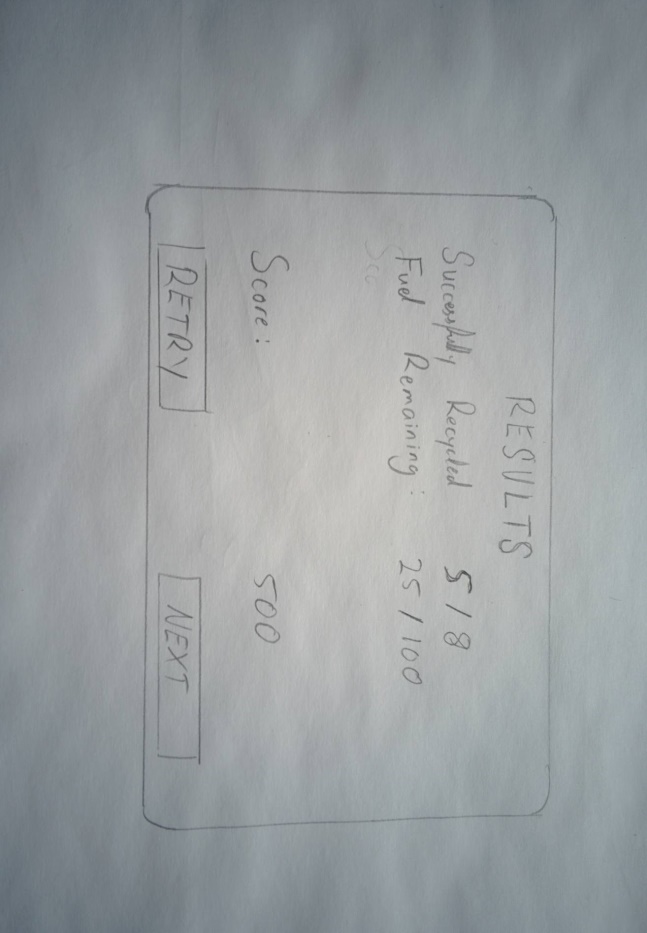
**Instructions Page**



Simple page showing game controls and objectives.

**Main Game Scene**



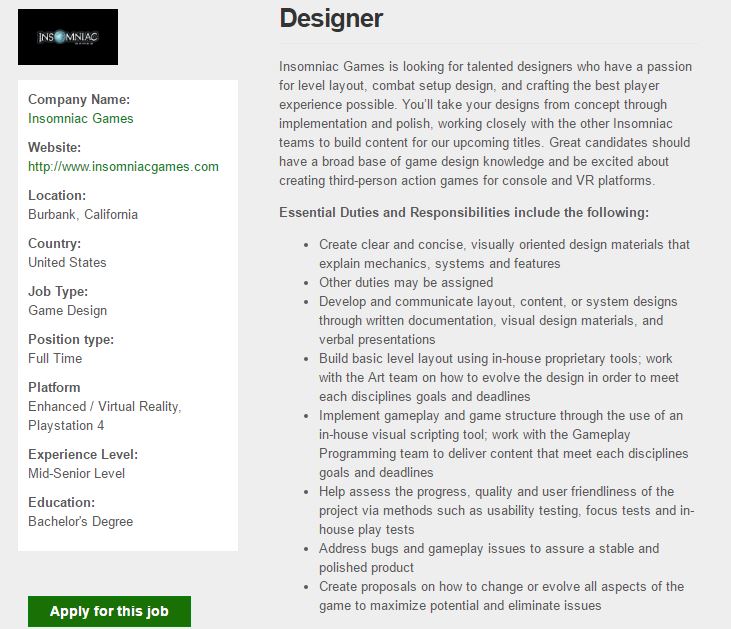
****Player controls character through the level collecting pickups and running towards the objective.

**Results Page**

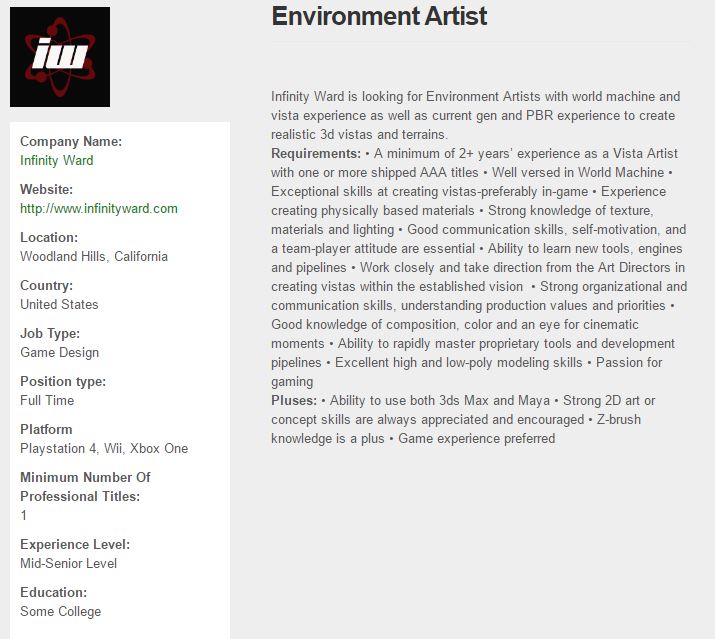
Simple canvas displaying the number of collectibles found and the score attained by the player. Player can either retry to level or move to the next level or main menu.

Task 4 – P2.1 – Identify and apply own area of expertise.

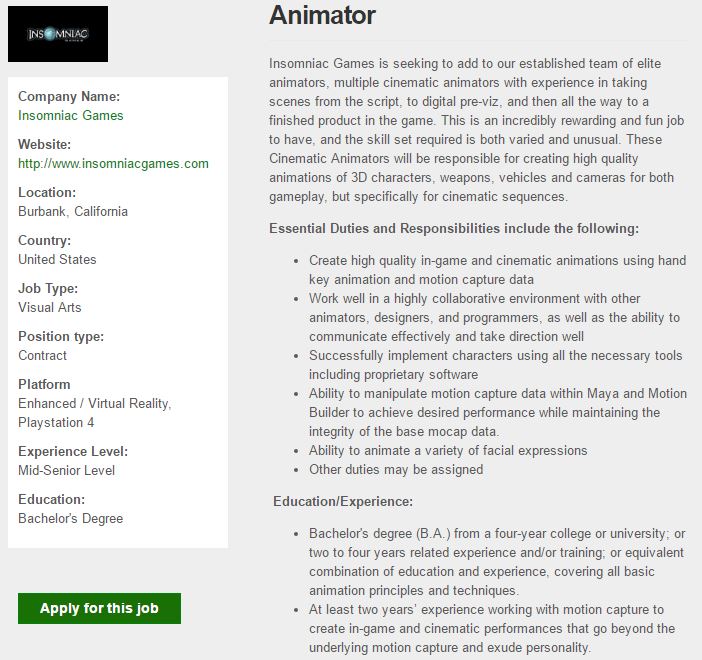
The following list outlines some job offers relevant to game development in the gaming industry. These are roles which I believe would be necessary in order to implement my game project in a professional environment.



Designers would work to build the core game mechanics, using assets from other departments such as models and animated rigs, and bringing them together to create the core game functionalities. In the case of my game project, they would be using a game engine such as Unity to bring together assets, write scripts and fix bugs to ensure that the gaming experience is as smooth and enjoyable as possible.



Environment Artists would be tasked with creating the world of the game. The main aspect of this would be building the terrain, but it is much more than that. They would have to work with lighting, textures, model building, materials and much more in order to create a seamless, living, virtual world.



Animators would be responsible for creating realistic movement for the player characters as well as any non-playable-characters (npc). They would also be responsible for any other animations such as floating pick-ups. They could use software such as Maya in order to take a 3D model and animate it realistically. In most cases, the models themselves and their movement rigs will have been created by teams dedicated to such things, the animator would have to communicate with the model creator and rigger to have a good understanding of how the character/vehicle/model is intended to move.

Personally I feel that my most suited role would be as an Environment Designer, the reason or this being that I already have a good foundation of 3D modelling, UV mapping and texture design specifically in Maya and 3DS Max. I also have some experience using ZBrush, all of which are requested requirements in the job offer listed above.

Task 5 – P2.2 – Clarify own role within team-driven development schedule.

Having chosen the role of an Environment Designer, I will list below how I feel my role would contribute to the following phases of a game’s development.

**Idea Generation –** In this phase I would be responsible for proposing ideas for the look and feel of the environment in relation to the game genre and the objectives. As this is mostly a collaborative stage where ideas are contributed by a large team, I could also consider and think of strategies which would blend together proposed ideas into a single environment concept which would work best for the overall game experience.

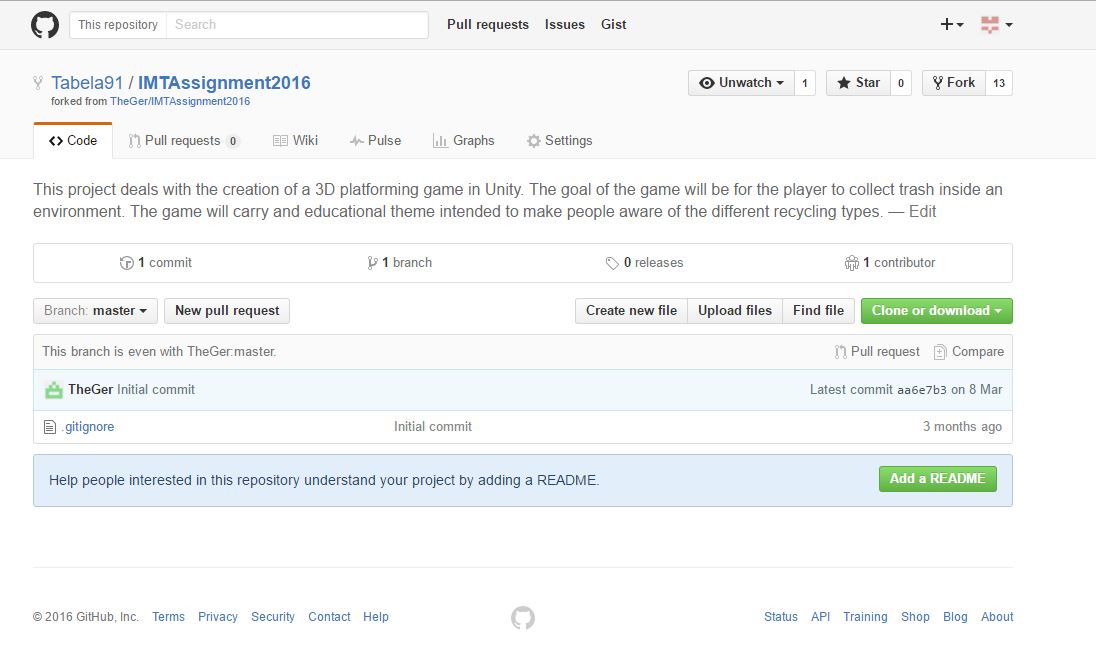
**Storyboarding and Game Design –** At this stage, I would take part in discussions with the environment team on creating specific sections of the environment which would be engaging for the player. As an example, if we decided to create an environment in a snowy terrain, we would try to come up with ideas for specific sections in the level where for example the player would have to move slowly/quietly in order to avoid triggering an avalanche. The idea is to design concepts for set pieces or events within the level which would be engaging and entertaining for the player.

**Creation of the Game Design Document –** At this point different environments and props relevant to the level design will have already started production. Each model, prop or terrain would have to have its development documented well. The main reason for this being that game assets will be exchanged with different departments continuously, and it would be important for each hand over to be done efficiently so different departments would use those assets appropriately. Environment Designers would for example, exchange assets with 3D Artists who would be designing props for the environment or characters related to that environment. They would also be responsible for handing over terrain assets to Game Designers to place within the game engine where the actual game mechanics will be implemented.

**Implementation of Functionalities –** At this point the focus would be on the direct interaction between the player and the environment. If events within the level are triggered by the player, it would be important for the game designers and environment designers to collaborate and ensure that those events occur as intended. The environment designer would explain to the programmers how specific sections of the environment would react or behave to a change triggered by the player.

**Deployment and Support of the Game –** At this point, all functionalities should be implemented, but before deployment, it would be important to ensure that the entire player experience blends those functionalities well, and that all functionalities work together well. Events should not conflict with each other. Environment Designers would be responsible for ensuring that the Environment behavior in each level works as intended.

Task 6 – P3.1 – Produce preliminary components for an initial prototype.



Task 7 – P3.2 – Evaluate and confirm prototype in relation to constraints.

Task 8 – P3.3 – Reflect and record on feedback from prototype phases.

Task 9 – P4.1 – Develop a fully working interactive media product that meets clients’ needs.