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**Project Management:**

The agile process that we chose to follow is Test Driven Development(TDD). TDD seemed to be the most efficient process for our video game project.

**TDD has great advantage points including:**

1. shortened development time
2. increased programming efficiency
3. Assurance that our code works as intended throughout the process

Our team will try to follow the typical TDD procedure as closely as possible. In order to do so, the steps we have to take will be:

1. **Writing a test** - the test will initially fail because it will be written before the feature is developed, in order to write the test the programmer will have to understand the requirements entirely.
2. **Run test before code implementation** - if the tests pass before new code is implemented, then our process won’t be as effective as it should be.
3. **Make tests pass** - The programmer will write the minimal code to make tests pass. At this point the code won’t be final.
4. **Re-run previous tests** - this step is to make sure all the previous tests are still passing after new implementation
5. **Refactor Code** - The programmer will now refine the code to perfection and make sure all tests still pass.
6. **Repeat** - After all the previous steps are effectively completed, we will repeat the process with a new set of tests

This process will be organized and implemented in JIRA.

**Revision Control:**

In order to keep our progress organized, we will need to use a revision control system. The system we chose to use is GitHub.

<https://github.com/pboca001/Rougelike-Game>

Our repository will consist of:

1. Source code
2. Assets
3. Documentation

Our project will be structured by the week. In the repository we will have folders based on the week and in the folders will be the work that was done within the week. By doing this, we will have an organized view of the progress we make.

**Quality Assurance:**

One of the advantages of TDD is quality assurance. Frequent testing prevents mistakes and problems throughout the process.

Another approach that we will do is product testing. Unlike testing the code, testing the product is a great way to upgrade the quality. In order to do this as efficiently as possible, we will have peers testing the product and giving us feedback on what they liked/didn’t like. The testers will be briefed about new features and upgrades before testing. For each tester, the feedback will be recorded so our team can discuss on changes need to be made.

An additional practice that we will use is MuSCoW Analysis:

1. Must Have
2. Should Have
3. Could Have
4. Won’t Have

Keeping a list of things using muscow analysis will help us keep track on what will need to be done. Throughout the process, things may be added/deleted from this list. This list will be used as a guideline for designing the game.

**Deliverable Planning:**

**Milestone 1:**

- Document full plan for story design (setting, levels, characters, etc.)

- Implement a functioning platform

- Create animations

- Research possible assets

Challenges for the programmer(Alex Torres):

- Integrating the various initial systems

-Writing the unit tests for everything in the initial platform

Challenges for Peter:

- Design story

- Researching assets

- Ensuring all requirements completed on time

- Submitting documentation on time

Challenges for Alex Varnell

-Create new assets (Static and moving)

-Learn to animate in 2D

**Milestone 2:**

- Have level system working

- Continue animations

- Implement assets

- Add extra functionality based on feedback

Challenges for the programmer:

-Continue to implement and integrate new features as suggested

-Continue to write and pass tests

Challenges for Peter:

- research assets

- help complete functionality requirements

- find bugs during game testing

Challenges for Alex Varnell

-Refine animations

-Create new assets

**Milestone 3:**

- Complete implementation

Challenges for the programmer:

- Finding and fixing bugs, adding new features and polishing

-Potentially start implementing the game into portals for alpha testing

Challenges for Peter:

- Manage time for game completion

- Thorough game testing