# FUNCTIONAL REQUIREMENTS AND PROJECT PLAN

## TERRIFIC DISPOSITION: PROCEDURAL STORYLINE GENERATION

It should be noted that the project plan also contained the very same information that will follow. However, to ensure a clear consideration of these aspects of the project, they will be included in their own section of this document.

## FUNCTIONAL REQUIREMENTS

### DEVELOPMENT AND TESTING REQUIREMENTS

- A game in the text-adventure style, with the following characteristics:
  - A graphical user interface similar to a command prompt, designed to display game content, as well as content entered by the user.
  - A preliminary stage in the style of the escape the room genre, designed to act as a calibration of the user's playstyle.
  - A core stage in which the player has a simple task to undertake, with the information and context needed to flesh out this simple task being procedurally generated.
  - The ability to start a new game of resume a previously started game.
- Testing regiment:
  - An array of unit tests designed to cover the core functionality of the game.
  - A series of playtests by multiple people, whose information will be anonymised in order to protect sensitive information.

### FURTHER DOCUMENTATION REQUIREMENTS

- A full report on the project's development including the following:
  - A full and in-depth literature review regarding the use of fuzzy logic and natural language processing, including any similar software or projects.
  - An overview of the testing undertaken including preliminary analysis and descriptions of both fail-states and the relevant fixes.
  - An overview of the different life-cycle stages the software went through throughout its development, with some exploration regarding maintenance and expansion.
  - An overview of the software, programming languages, and APIs used in the development of this project, along with any used assets.
  - A full analysis and retrospection of the development process, the decisions made and what can be taken away from the development of the software and its success in the aim described above.

## PROJECT PLAN

### APPROXIMATE SCHEDULE AND RISK ASSESSMENT

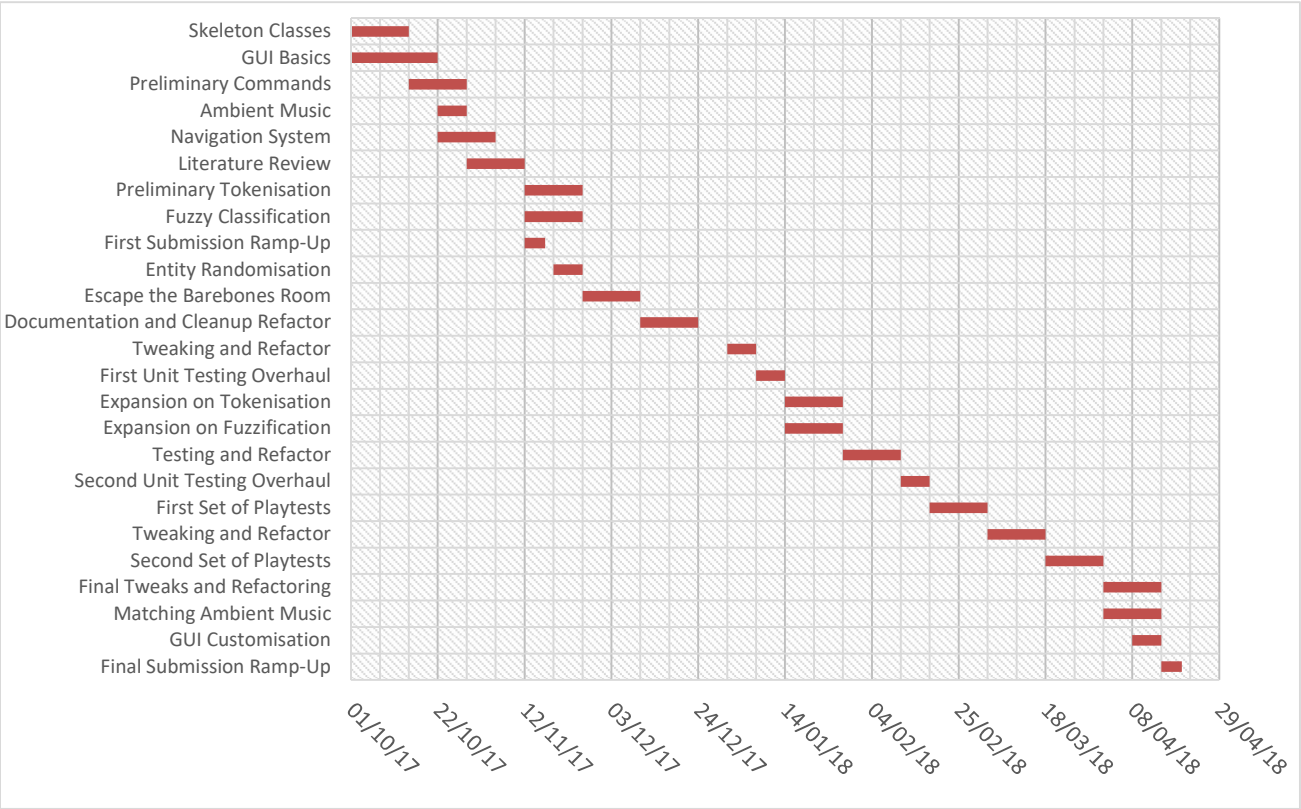
| Task Description | Projected Start Date | Projected End Date | Duration In Days | Risk | Priority |
|---|---|---|---|---|---|
| Skeleton Classes | 01/10/2017 | 15/10/2017 | 14.00 | 0 | 5 |
| GUI Basics | 01/10/2017 | 22/10/2017 | 21.00 | 0 | 5 |
| Preliminary Commands | 15/10/2017 | 29/10/2017 | 14.00 | 0 | 5 |
| Ambient Music | 22/10/2017 | 29/10/2017 | 7.00 | 0 | 3 |
| Navigation System | 22/10/2017 | 05/11/2017 | 14.00 | 1 | 5 |
| Literature Review | 29/10/2017 | 12/11/2017 | 14.00 | 3 | 5 |
| Preliminary Tokenisation | 12/11/2017 | 26/11/2017 | 14.00 | 2 | 5 |
| Fuzzy Classification | 12/11/2017 | 26/11/2017 | 14.00 | 1 | 5 |
| First Submission Ramp-Up | 12/11/2017 | 17/11/2017 | 5.00 | 3 | 5 |
| Entity Randomisation | 19/11/2017 | 26/11/2017 | 7.00 | 1 | 3 |
| Escape The Barebones Room | 26/11/2017 | 10/12/2017 | 14.00 | 2 | 5 |
| Documentation And Clean-up Refactor | 10/12/2017 | 24/12/2017 | 14.00 | 1 | 4 |
| Tweaking And Refactor | 31/12/2017 | 07/01/2018 | 7.00 | 1 | 3 |
| First Unit Testing Overhaul | 07/01/2018 | 14/01/2018 | 7.00 | 3 | 4 |
| Expansion On Tokenisation | 14/01/2018 | 28/01/2018 | 14.00 | 4 | 5 |
| Expansion On Fuzzification | 14/01/2018 | 28/01/2018 | 14.00 | 4 | 5 |
| Testing And Refactor | 28/01/2018 | 11/02/2018 | 14.00 | 3 | 4 |
| Second Unit Testing Overhaul | 11/02/2018 | 18/02/2018 | 7.00 | 3 | 4 |
| First Set Of Playtests | 18/02/2018 | 04/03/2018 | 14.00 | 2 | 4 |
| Tweaking And Refactor | 04/03/2018 | 18/03/2018 | 14.00 | 3 | 4 |
| Second Set Of Playtests | 18/03/2018 | 01/04/2018 | 14.00 | 2 | 4 |
| Final Tweaks And Refactoring | 01/04/2018 | 15/04/2018 | 14.00 | 3 | 4 |
| Matching Ambient Music | 01/04/2018 | 15/04/2018 | 14.00 | 2 | 2 |
| GUI Customisation | 08/04/2018 | 15/04/2018 | 7.00 | 1 | 1 |
| Final Submission Ramp-Up | 15/04/2018 | 20/04/2018 | 5.00 | 3 | 5 |

| | 0 | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| **Risk** | Basic Tasks | Simple Tasks | Complex Experienced Tasks | Seemingly Simple New Tasks | Complex New Tasks | Complex Crucial New Tasks |
| **Priority** | Negligible | Optional | Optional but Desired | Somewhat Important | Very Important | Imperative |

Fuzzification: Relates to the fuzzy logic components in the resulting program.

Tokenization: Relates to the natural language processing components in the resulting program.

## GANTT CHART




## COMMENTS OF CURRENT PROGRESS

So far, the projected development tasks have been met to an acceptable degree. These tasks include; Skeleton Classes, GUI Basics, Preliminary Commands, Ambient Music, and Navigation System. Although subject to further review, these features are in a generally acceptable condition and will act as the more simplistic interface for the user.

The features that actually pertain to the computer science fields of fuzzy logic and natural language processing still need to be implemented, but these have been projected for development after the completion and submission of the literature review.

As can be seen in the above GANTT chart, they have been merely drafted ready for proper implementation in the following week. Followed with further development of the final deliverable.

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