Tales from the Tower: Project Plan

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1 Introduction

This document will serve as an overview of the project planning required for the development of the game: "Tales from the Tower" being developed for WSOA3004A as the final semester project.

The various sections of this document will inform the reader on the processes required for group management and development throughout the project. The sections include:

- The scope and project description, where a brief overview of the project as a whole will be described.
- Time and group management, including delegation and descriptions of the group's various roles and responsibilities.
- The technologies that will be utilized throughout development
- The testing methodologies for the project
- The milestones and development timeline drawn up for this project.

The game design document that has been written for this project should be referred to in the reading of this document, as the project itself will be described in more detail.

2 Scope and Project Description

For this project, a 2D top-down stealth mystery game is being developed. The game will be single player. The game produced will be a complete build with functioning systems and original art assets. The final build and the build in various stages of development are required to be uploaded onto the game website itch.io.

3 Time and Group Management

This section will provide a detailed overview of the time and group management planning for this project.

3.1 Roles and Responsibilities

Member	Roles
Jenna Dunford (2127324)	Project Manager, Lead Artist, Co-Programmer, System Designer, Writer, Level Design, Core Game Design, Sound Effects
Shen Reddy (2102687)	Lead Programmer, Co-Artist, Lead Music Composer, System Designer, Core Game Designer, Sound Effects

Detailed descriptions for the project roles are listed below.

- Project Manager
  - Responsible for GitHub management, timeline organization, ensuring deadlines are met, setting up and managing Trello page, keeping track of meetings and summarizing information from meetings, ensuring documentation is up to date
- Lead and Co-Artist
  - Finding references for and creating concept art, character designs, assets, visual level designs, artwork for the user interface, coloring, animations, appropriately importing art assets into Unity
  - The co-artist will assist in the creation of the above based on the requests from the lead artist
  - The work division between the lead artist and co-artist is scoped to be about 70 percent to 30 percent.
- Lead and Co-Programmer
  - Coding systems designed within the system design process, implementing systems, system integration, implementation of Unity technologies
  - The co-programmer will assist in the above as tasks are delegated by the lead programmer
  - The work division between the lead programmer and co-programmer is a 50/50 split.
- Core Game Designer
  - Overall design of the systems and mechanics in the game, balancing of systems, implementing feedback from play-testing sessions
- System Designer
  - Designing systems required by the core game design
- Writer
  - Writing out the narrative for the game-play
  - Writing of required textual descriptions within the game
- Music Composer
  - Creation of music for the game, deciding genre of music and deciding music for various tones and levels within the game
- Sound Effects
  - Creation of various audio effects required within the game, ie footsteps, voice acting, etc.

3.2 External Project Management Tool Usage

The project management service "Trello" is being used to organize tasks for the project, tasks are divided into either "To-do", "Doing", or "Done". This will allow the project manager to remain up to date on the current overall state of development, as well as allow group members to keep track of their finished and unfinished tasks.

For official project related communication, Microsoft Teams will be utilized. This platform allows for voice and video calls to aid in remote collaborative development, allow for screen recordings of calls to be taken, as well as a place to keep a record of meetings and important documents.

The social media application "WhatsApp" will be used for general day-to-day communication between group members. This will allow for quick, informal updates on work and project management to take place when an official avenue such as Microsoft Teams is not necessary.

3.3 Time Management and Organization Processes

- Daily Meetings
  - Due to the scope of this project, daily meetings are required in order to keep track of ideas from group members, issues that have been occurring, and quick check-ins. This will allow for the project manager to always be aware of the current state of the project.
  - Daily meetings will take place either in person or during set times on WhatsApp using the text chat or audio call capabilities.
  - The daily meetings will be informal, in that only a single message describing the group member's current mindset will be required.
- Weekly Meetings
  - Weekly meetings will be long-form (half an hour to two hour) meetings that will take place either once or twice a week.
  - These meetings will be formal and take place either in person or on Microsoft Teams.
  - The purpose of these meetings will be to assess the overall state of the project, determine if the development goals are being reached in time, go over feedback and any changes that need to be made, as well as to allow team work to take place to work on any major issues to do with the project development.

4 Development Technologies to be Used

The following technologies will be used throughout the development of this project:

4.1 Unity 2D

Unity is the Unity Engine created for two-dimensional game development. This will be used as the game engine for this project as it best suits the goal of developing a top-down two-dimensional game.

The Unity game engine is the preferred engine for game development for the group.

4.2 GitHub

A repository for the project will be created on GitHub and made public. This repository will contain the Unity 2D project files for the game. The repository will be used for version control of the project as well as remote, collaborative development.

4.3 Procreate

Procreate is an iPad program used for digital art. This program will be utilized to create all art assets for the game.

4.4 Audacity and Garage Band

Since sound effects and music are goals for this project, the programs Audacity and Garage Band will be used for sound editing and creation.

5 Proposed Testing and Quality Assurance

5.1 Testing Methods

- Play Testing
  - Play Testing refers to using third party individuals (people not directly involved in the game's development) as testers for the game at various stages.
  - The feedback from play testers will be used to improve and iterate upon the game.

  - A play testing document has been used to detail which systems or game aspects are being play tested, as well as the collected feedback, and the changes being made or not being made as a result of the feedback.

- Unit Testing
  - During the development of this project, a number of different programming systems will need to be developed. Each of these systems ("units") will need to be individually tested for breaks and flaws. This is referred to as unit testing.
  - Unit testing will need to be done continuously throughout development as new systems are created for the game.
  - During the iterative development process, whenever a system is changed or iterated upon, unit testing will need to be repeated in order to assure that no issues occur during changes.

5.2 Play Test Structure

Play tests will be conducted in person through project development. The same 6 play-testers will play and give feedback on each phase of development and be used as the core testing group.

Based on the design goals of the project, play-testers were chosen based on the following criteria:

- The tester is a Game Designer
- The tester enjoys games that are difficult and require multiple attempts to complete.
- The tester is enjoys non-mobile games.
- The tester is determined to have competent twitch/reaction skills.

Play tests should be conducted under the following structure:

- Play-testers will be asked to test a section of the prototype and will be given context of the testing scenario.
- Specific questions will be prepared beforehand by the team, based on the requirements of the test, and given the to testers as a google form to fill out after the play-test as feedback.
- Play-testers will also be asked for immediate verbal reaction feedback after the play-test session.
- The team will watch how the play-testers interact with the system and record this data and compare it to their feedback.

Play-test data will be evaluated based on the feedback and design goals and iterations will be made accordingly. Not all play-tester feedback will require changes to be made, changes based on feedback will be implemented on a case-to-case basis, at the developer's and game designer's discretion. Play-testers should be chosen based on their competence as a play-tester as well as their background in game development and programming.

5.3 Quality Assurance Methods

Play testing and unit testing will be used to ensure that the fundamentals of the game software operate as intended. On a surface level, quality assurance methods will also take place to ensure that the product is of a high professional standard.

These quality assurance methods will consist of internal testing and evaluating of the product as a whole in order to ensure that there are no weak points at any stage.

6 Proposed Major Milestones

Week of 17th - 21st October	First Prototype (Alpha), Project Plan, Game Design Document

- Software Development Milestones
  - Enemy Patrol Implemented
  - Enemy Field of View Implemented
  - Player Movement Controller Implemented
  - Player Dash Implemented
- Audio-Visual Milestones
  - Player Sprite
  - One walk animation
  - One item sprite
  - One level background
- General Project Milestones
  - One working level
  - Multiple enemy patrols
  - Collecting Items

Week of 24th - 28th October	Beta

- Software Development Milestones
  - Pick-pocketing Enemies Implemented
  - Throw Projectile Implemented
  - Enemy move distraction Implemented
- Audio-Visual Milestones
  - One enemy sprite
  - Two level backgrounds
- General Project Milestones
  - Two levels completed

7th - 25th November	Oiling

- Software Development Milestones
  - TBD
- Audio-Visual Milestones
  - feedback sounds
    - item collection
    - player spotted
  - Music
    - Background track
  - Player Sounds
    - Walk
    - Dash

        * Reaction sound when caught
    - Enemy Sounds
        * Grunts
        * Murmurs
        * Reaction sound when player spotted
    - Enemy Visuals
        * Sprites
        * Patrol Animation
        * Player Spotted Animation
        * Distracted animation
    - Player Visuals
        * all angles walk animation
        * Dash/roll animation
        * Collect item animation
        * Caught reaction animation

- General Project Milestones
    - Implementation of Planned levels in Design Document

7 Reflections

Through the design and testing process, it was determined that the majority of the workload was the implementation of the code. In order to ensure the project could be completed in time, the workload division for this was changed to an even 50/50 workload split between both group members. The initial 60/40 split was not efficient for achieving the goals that were set, nor could it be achieved in the timeline that was set. This change has resulted in more efficient workflow.

The timeline and project road-map that was initially set also had to be changed. The initial timeline was structured so that each group member worked on the project every single week until the development deadline. However, this strategy conflicted with the academic commitments of both members, and the work being produced in that time was subpar and not in-line with the goals that were set. It was determined that the group should work on the project in sets/"sprints", which were set based on the time frames that both members could exclusively work on the project with no other conflicts or interruptions. This strategy proved to be more effective for producing the work needed in comparison to the initial strategy.

The goals that were initially set out, as reflected on in the game design document, were achieved in the above mentioned bulk session sprintes, as opposed to the weekly development schedule that was initially proposed.

8 Conclusion

This document has detailed a comprehensive project plan and discussed the changes that have been made based on the requirements of the group.