Scope Document for Project *Project Alpha*

Julian3103-byte

August 27, 2024

Abstract

This document outlines the scope, goals, and structure of the project *Project Alpha*. It serves as a guide for development and as a documentation of the planned work process.

Contents

1 Introduction

1.1 Project Goal

The goal of this project is to develop a 2D RPG game where player decisions influence the storyline and the personalities of the characters. The player will be able to achieve different outcomes through various story branches.

1.2 Vision

The vision of this project is to offer a deep, immersive gameplay experience characterized by dynamic character development and branching storylines. Player decisions will have real consequences that impact the game world.

2 Scope

2.1 Core Mechanics

The game will include the following core features:

- Dialogue system with branching decisions.
- Real-Time combat system.
- Character development and relationships influenced by player choices.
- Quest system with main and side quests that have dynamic consequences.

2.2 Additional Features

In addition to the core mechanics, the game will also feature optional elements like:

- Collectible items and equipment.
- Skill system to improve the character's abilities.
- Trade system that the player can trade with its acquired items
- Random events that respond to player decisions.

3 Technical Requirements

3.1 Development Tools

The project will be developed using the following tools and technologies:

- Godot Engine 4.3 for game development.
- GitHub for version control and collaboration.
- LaTeX for project documentation.
- Piskel for graphics and sprites.
- Audacity for sound effects and music.

3.2 Platforms

The game will be developed for the following platforms:

- Windows.
- Optional: Mobile platforms such as Android.

4 Timeline and Milestones

4.1 Project Phases

The project will be divided into several phases:

- **Phase 1**: Prototype development
- **Phase 2**: Core mechanics implementation
- **Phase 3**: Story and side quests expansion
- **Phase 4**: Polishing, bug fixing, and testing

4.2 Milestones

- **Milestone 1**: Basic Prototype Completed
  - Basic player movement implemented (walking, jumping, etc.).
  - Simple placeholder environment created (using basic shapes).

  - Basic interaction system for NPCs and objects.
  - Initial combat mechanic with placeholder weapons.

- **Milestone 2**: Core Mechanics Established
  - Implementation of dialogue system with simple branching paths.
  - Introduction of basic quest system (main and side quests).
  - Placeholder for inventory system created (basic UI and item slots).
  - Simple AI for enemies and NPCs.

- **Milestone 3**: Expanded Gameplay Systems
  - Enhanced real-time combat system with multiple weapons and enemy types.
  - First iteration of the skill and leveling system implemented.
  - Introduction of the trade system (simple buying/selling mechanics).
  - At least 5 playable quests implemented (2 main, 3 side quests).

- **Milestone 4**: Story and World Building Expansion
  - Basic story outline integrated into the game.
  - Creation of 3 distinct NPC personalities that respond to player decisions.
  - Introduction of dynamic consequences for side quests (e.g., NPC reactions).
  - Expanded dialogue system to reflect deeper player choices.

- **Milestone 5**: Mid-Development Playtest
  - Full integration of at least 10 quests (4 main, 6 side quests).
  - Playable demo version with core mechanics, quests, and basic story elements.
  - Internal playtest to identify issues with combat, quests, and story flow.
  - Refinement based on player feedback from the playtest.

- **Milestone 6**: Story Completion and Full Gameplay Loop
  - Main storyline fully integrated with branching endings.

  - Side quests expanded, with at least 15 quests total (7 main, 8 side quests).
  - Final pass on NPC character arcs and consequences of player choices.
  - Playable beta version that includes all core mechanics and a full gameplay loop.

- **Milestone 7**: Polishing, Bug Fixing, and Final Testing
  - Full bug fixing pass, focusing on combat, AI, and quest-related issues.
  - Refinement of UI elements (inventory, quest log, dialogue system).
  - Additional polish to animations, sound effects, and visual effects.
  - Final testing phase with external testers for balancing and final bug checks.

- **Milestone 8**: Final Release Candidate and Launch Preparation
  - Final beta test with all mechanics, story, and quests completed.
  - Last-minute adjustments and fixes based on beta feedback.
  - Game ready for release, including packaging for target platforms (PC, mobile, etc.).
  - Preparation for launch, marketing, and distribution.

5 Risks and Challenges

5.1 Technical Risks

Risk: Unforeseen technical problems such as difficulties with implementing complex mechanics (e.g., AI, physics) or performance issues across different platforms.
Mitigation Strategy: Early prototyping and frequent testing on target platforms, as well as potential training or consultation with experts.

5.2 Time Risks

Risk: Underestimating the workload of certain tasks, leading to delays and missed deadlines.
Mitigation Strategy: Create a realistic timeline, include buffer time for unexpected delays, and break down the work into smaller, manageable tasks.

5.3 Design and Gameplay Risks

Risk: Gameplay balancing issues may arise, making the game either too difficult or too easy. Additionally, the temptation to add new features (feature creep) could delay progress.
Mitigation Strategy: Stick to the defined scope of the project and conduct regular playtests to fine-tune gameplay mechanics and balance.

5.4 Resource Risks

Risk: Limited resources such as time, budget, or skills may impact the development process. A lack of expertise in certain areas (e.g., sound design, animation) could hinder progress.
Mitigation Strategy: Consider external support through freelancers or free tools as necessary. Prioritize essential features and be prepared to cut non-critical elements if needed.

5.5 Cross-Platform and Compatibility Risks

Risk: Challenges with cross-platform compatibility (e.g., mobile and desktop) and potential performance issues on lower-end hardware.
Mitigation Strategy: Test early and frequently on different platforms, and clearly define the game's minimum hardware requirements.

5.6 Story and Content Risks

Risk: The complexity of integrating the story with gameplay could lead to delays, and player choices may result in unintended consequences that disrupt the narrative flow.
Mitigation Strategy: Implement the story in stages and integrate it gradually into the game; gather regular feedback to adjust and refine the narrative.

5.7 Feedback and Reception Risks

Risk: Early versions of the game may not be well received by testers, and adapting to feedback might prove challenging.
Mitigation Strategy: Establish a feedback loop from the beginning (e.g., through playtesting and surveys) and prioritize feedback effectively, ensuring that essential improvements are implemented without losing sight of the original vision.

6 Conclusion

This document provides an overview of the scope and structure of the *Project Alpha* project. It serves as a guide for development and ensures that the work on the game proceeds in a focused and structured manner. Adjustments to the scope document can be made during the course of the project to account for new challenges and insights.