

Software Requirements and Design Document

For

Group 19

Version 3.0

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1. Overview (5 points)

"Shogun's Curse: Spirits of the Fallen" has evolved into an even more dynamic platformer action-adventure game, maintaining its mystical feudal Japan setting. The recent iterations have enriched the gameplay with new mechanics like wall jumping and portals, adding depth to the strategic platforming challenges. Players continue to engage in the story of a samurai combatting forces, both human and supernatural, now with enhanced levels that provide a more intricate and challenging experience.

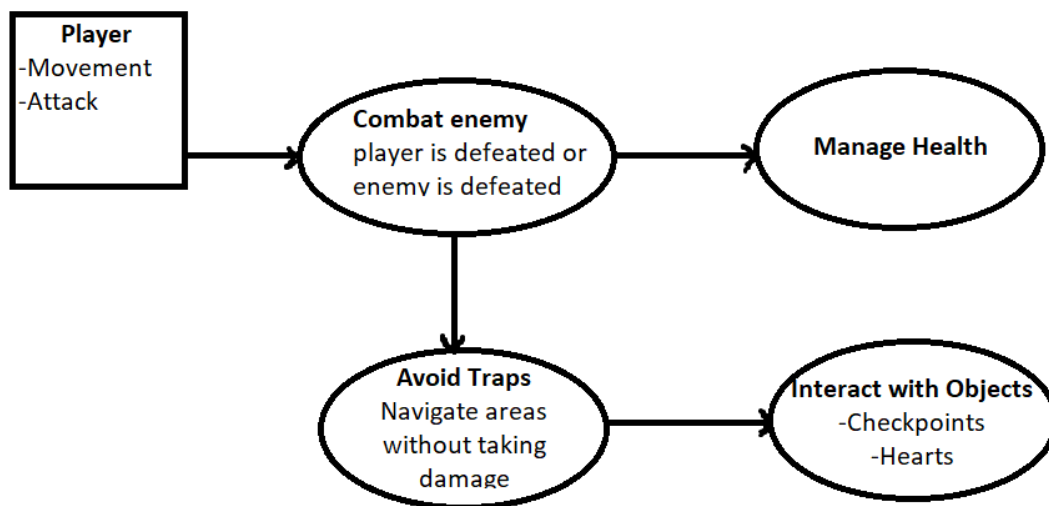
2. Functional Requirements (10 points)

- *The system shall allow players to perform complex platforming maneuvers, including wall jumping. [High Priority]*
- *The system shall include interactive portals for transitioning between different game stages. [Medium Priority]*
- *The system shall introduce three new levels with increasing difficulty, focusing on platforming challenges. [High Priority]*
- *The system shall add a new enemy type, diversifying the combat experience. [Medium Priority]*
- *The system shall maintain all previously listed functional requirements, ensuring they are adapted and optimized for the new gameplay focus. [High Priority]*

2. Non-functional Requirements (10 points)

- *Performance: Enhanced to support additional levels and new features without compromising on frame rate. [High Priority]*
- *Scalability: The game shall be capable of integrating further levels and features in future iterations. [Medium Priority]*
- *Maintainability: The codebase shall be structured to facilitate easy updates and bug fixes. [High Priority]*
- *The remaining non-functional requirements shall continue to be upheld as specified in the previous iteration.*

3. Use Case Diagram (10 points)



Combat with Enemy

Primary Actor: Player

Goal: To defeat enemies encountered in the game.

The enemy is defeated, or the player is defeated.

The player uses the attack controls to engage in combat with the enemy, utilizing various weapons and strategies to defeat them.

Avoid Traps

Primary Actor: Player

Goal: To successfully navigate through areas with traps without taking damage.

The player approaches an area with visible traps.

The player passes the trap area or is injured by the trap.

The player observes the environment and uses timing and strategy to avoid triggering traps.

Manage Health:

Primary Actor: Player

Goal: To maintain the player character's health for survival.

The player's health is restored or depleted based on actions taken.

The player monitors the health bar and uses health items or avoids damage to manage their health.

Interact with Objects

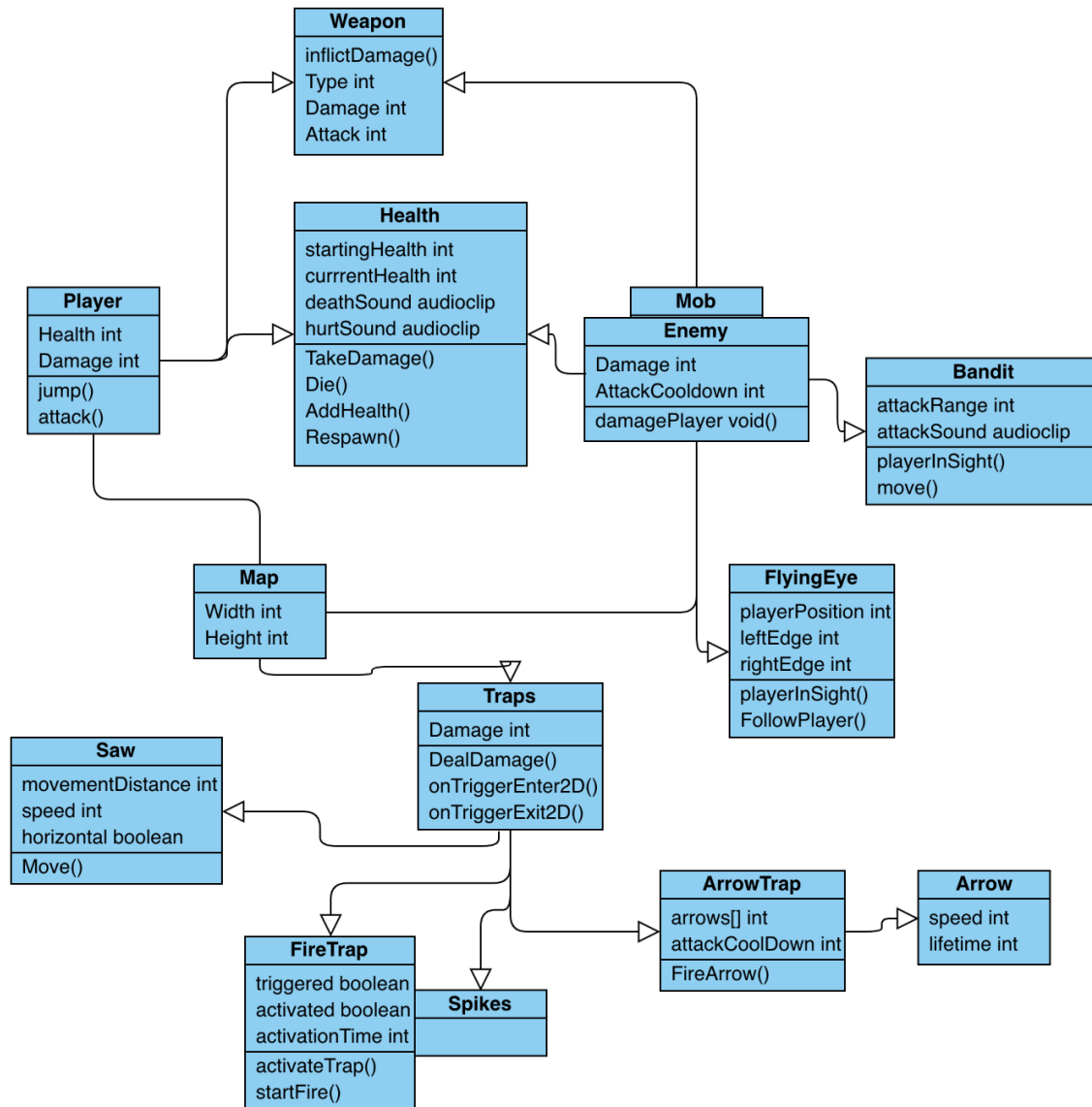
Primary Actor: Player

Goal: To engage with various objects that are part of the game's mechanics.

Objects are present in the game environment.

The player has interacted with objects, possibly affecting the game state.

4. Class Diagram and/or Sequence Diagrams (15 points)



5. Operating Environment (5 points)

- *The software is designed to operate in a PC environment. Specific requirements are as follows:*
- *Hardware Platform: Compatible with low to high-range PCs*
- *Operating System: Windows 10 or newer, MacOS (specific versions)*
- *Software Requirements: Requires DirectX 11 or newer, compatible with most common sound and graphics cards.*

6. Assumptions and Dependencies (5 points)

- *Performance: Enhanced to support additional levels and new features without compromising on frame rate. [High Priority]*
- *Scalability: The game shall be capable of integrating further levels and features in future iterations. [Medium Priority]*
- *Maintainability: The codebase shall be structured to facilitate easy updates and bug fixes. [High Priority]*
- *The remaining non-functional requirements shall continue to be upheld as specified in the previous iteration.*