

Mini Game Production Project

Game Title: Shadow Step

1. Game Concept & Pre-Production (30%)

High Concept Statement

Shadow Step is a 2D puzzle-platformer where the player switches between Light and Shadow forms to solve environmental puzzles. The core mechanic focuses on state-switching to overcome obstacles. The game targets indie and casual players who enjoy short, creative puzzle experiences.

Mini GDD

Genre: 2D Puzzle Platformer

Core Mechanics:

- Switch between Light Form (solid, interacts with objects)**
- Shadow Form (can pass through specific barriers)**
- Limited cooldown between switches**

Core Gameplay Loop:

Observe environment → Switch form → Solve puzzle → Reach exit → Progress

Level Ideas:

- Ruins with light beams blocking paths**
- Platforms that react differently to each form**
- Doors accessible only in shadow mode**

Key Assets:

Visual: player sprites (2 forms), tilesets, lighting effects, UI indicators

Audio: ambient music, switching sound effect, interaction sounds

Art Direction:

Minimalist, dark environments with strong contrast lighting and silhouette-based visuals.

Pipeline Plan

Pre-Production:

- **High concept (Designer)**
- **Mini GDD (Designer)**
- **Core prototype (Programmer)**

Production:

- **Player controller and switching system (Programmer)**
- **Level design (Designer)**
- **Art creation (Artist)**
- **Sound design (Audio Designer)**

Post-Production:

- **Bug fixing (Programmer + QA)**
- **Playtesting (QA)**
- **Balancing and polish (Designer)**
- **Final build preparation (Producer)**

2. Rapid Prototyping & Iteration (25%)

Prototype:

Created a basic Unity scene with player movement and form switching. Shadow form passes through marked walls.

Feedback:

Switching feels too easy; consider adding a cooldown.

Iteration:

Added a short cooldown before switching again.

Reflection:

The cooldown improved pacing and prevented mechanic abuse. It made puzzles more strategic without increasing frustration.

3. Team Structure & Workflow (20%)

Roles:

Designer – defines mechanics and level layout.

Programmer – implements gameplay systems.

Artist – creates visuals and lighting.

Sound Designer – produces audio effects and music.

QA – tests gameplay and reports issues.

Producer – manages tasks and deadlines.

Workflow Simulation:

Designer collaborates closely with **Programmer** during implementation. **QA** tests builds and reports issues to **Programmer**. **Producer** monitors progress and coordinates between roles. **Art** and **Audio** follow the design vision.

4. Post-Mortem & Reflection (25%)

What Went Well:

The core mechanic was simple and easy to prototype. Clear planning reduced confusion.

Challenges:

Balancing puzzle difficulty and preventing repetitive gameplay.

Most Critical Phase:

Pre-production was most important because defining the mechanic early guided all development decisions.

Lessons Learned:

Earlier playtesting would improve balance. In the next iteration, adding enemies that exist in only one form would deepen strategy.