

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.