Final Project Report: "Infernal Descent"

Course: CMIS 4120 / CSC4840
Team Members:

- **Brandon-Joshua Hines** – Character/Enemy Animations & Combat Mechanics
- **Zeba Karobi** – Level Designer (Environment design, asset integration, destructible props)
- **Adnan Khan** – UI/Visual Effects, Audio, Special Effects

Gameplay Demo Video: [Insert YouTube or Shareable Link Here]

Project Overview

Infernal Descent is a single-level, isometric dungeon-crawler inspired by *Hades*. The player begins in a hellish stone chamber, must defeat a powerful boss, and can either replay the level or exit upon victory. We originally proposed procedurally/modularly generated levels, but after receiving feedback from the professor, we simplified scope to ensure a polished, complete experience.

Implemented Features

- **Fully designed boss arena**
    - Created using the *FANTASTIC Dungeon Pack*
    - Includes hand-placed modular walls, pillars, props, and lighting
    - Implemented ambient fog and torch glow to set tone
- **Destructible environment elements**
    - Custom C# `DestructibleWall` script using prefab replacement
    - Simulates environmental interactivity (future expansion ready)
- **Character controller and combat system**
    - Player movement and attack scripts
    - Boss spawns on raised platform with basic AI and attack logic
- **UI & special effects**
    - [waiting for Adnan's input]

Team Contributions

- **Zeba Karobi**
    - Designed the full playable level
    - Integrated modular assets, lighting, fog, and props
    - Developed and tested destructible wall prefab system
    - Set up spawn anchors for boss and player
- **Brandon-Joshua Hines**
    - Rigged and animated player and boss characters

- ○ Developed melee attack scripts and hit detection logic
- ○ Set up boss health and attack patterns
- **Adnan Khan**
  - ○ [waiting for input]

Challenges Faced

- **Pivot Misalignment Issues:** when spawning destructible walls required multiple iterations and prefab refactoring.
- **Balancing Artistic Vision With Performance:** fog and lighting had to be tuned for readability and frame rate.
- **Merge Conflicts:** Collaborating through Git without scene merge conflicts.
- Managing AI: Enemy AI effecting movement; required some refactoring and simplifying the AI to make it work
- **Time Management and Productivity:** All three of us had a lot of group and individual projects for this class as well as other classes, so balancing everything became a struggle.

Lessons Learned

- **Keep Project Scope Realistic:** simplifying and pivoting early helped us focus on quality over quantity.
- **Prefab design is crucial**: especially when building reusable, interactive systems like destructible objects.
- **Clear division of responsibilities:** helped us avoid delays and allowed each member to specialize and work effectively.

Standalone Build

The standalone Windows build is included in our submission ZIP. It can be launched without opening Unity.

Conclusion

We're proud of what we built with *Infernal Descent* — a short but atmospheric and functional prototype showcasing isometric design, player combat, and destructible environments. It has the potential to grow into a multi-level dungeon-crawler with more enemy types, dynamic rooms, and progression mechanics.