Goblin's Keep - Game Development Outline

Project Overview

A 2D tile-based escape game where players navigate through a castle while avoiding goblins and traps. Features progressive AI implementation across multiple levels, power-ups, and a scoring system.

Team Schedule
- In-person meetings: Tuesdays and Thursdays (3 hours each)
- Additional online meetings via Discord as needed

Development Stages

1. Environment Setup (Lead: Arun)
- Design and implement minimum 3 castle levels with increasing complexity
- Create/source sprite assets (walls, characters, items, environmental details)
- Implement camera system with player tracking
- Set up tile-based grid system

2. Movement System and AI Systems (Lead: Maxime)
- Implement player controls (WASD/arrow keys)
- Create vector-based movement system
- Design and implement keyboard input mapping
- Set up Enemy AI implementation (Random Movement, A*, Q-Learning Policy)

3. Visual Systems (Lead: Vamsi)
- Implement sprite transitions for all moving entities
- Create animations for:
  - Player movement and interactions
  - Enemy behaviors
  - Power-up effects
  - Environmental elements (levers, doors)

4. Collision System (Leads: Hugo, Support: Max)
- Implement grid-based collision detection
- Create interaction systems for:
  - Player-Enemy collisions (death/restart)
  - Player-Environment interactions
  - Power-up collection

5. Game States & UI (Lead: Vamsi, Support: Hugo)
- Design and implement:
  - Main menu interface
  - Settings screen with control customization
  - In-game HUD (score, status)
  - Pause functionality
  - Game over screen

7. Game Features
- Power-ups
- Scoring system
- Level progression