Project Proposal Requirements

1. **Project Introduction**
    - **Project Title**: Game（Soul Knight） Optimization and Improvement Based on the Unity Platform
    - **Team URL**: https://github.com/HarryITdeveloper/harryitdeveloper.github.io.git
    - **Team Members**:
        - **Lead Programmer():** Responsible for optimizing game logic and feature implementation
        - **Lead Tester():** Responsible for feature testing and stability checks
        - **Lead Game Developer():** Responsible for scene design and game balance improvements
2. **Problem Diagnosis**
    - Item Pickup and Interaction Issues: The game has flaws in the item pickup and interaction functionality, potentially due to unimplemented features or key logic problems, preventing players from interacting with objects in the game.
    - Character Selection Screen Missing: The game lacks a character selection screen, which limits the ability of players to choose different characters, thereby reducing the game's diversity and playability.
    - Insufficient Number of Scenes: The current game scenes are too few and lack variety, impacting the overall gaming experience.
    - Monster AI Logic Issues: The logic behind the generation and behavior of monsters is flawed, resulting in poor game balance and insufficient challenge.
3. **Proposed Solutions**
    - **Interaction Logic Optimization:** Resolve item pickup and interaction issues, allowing players to naturally interact with items and the environment.
    - **Implement Character Selection Screen:** Add a character selection screen, enabling players to choose different characters, enhancing the game's diversity.
    - **Scene Design Optimization:** Expand the number of game scenes, adding more diverse levels and environments to enhance the content richness and challenge.
    - **AI Optimization:** Utilize AI tools to analyze and optimize the logic for monster generation and behavior, ensuring their actions align better with the game's balance.
4. **Work Plan**
    - **Weeks 1-2:** Analyze and research the project issues, gain an in-depth understanding of the problems within the existing source code, and clarify the improvement directions.
    - **Weeks 3-4:** Optimize the item pickup and interaction functionalities, adjust the key logic, and implement the character selection screen.
    - **Weeks 5-6:** Use AI tools to optimize the monster generation logic and design new scenes.
    - **Week 7:** Integrate all optimizations, and conduct comprehensive testing and adjustments.
    - **Week 8:** Based on the feedback from testing, finalize the optimizations, prepare project documentation, and set up for the final presentation.
5. **Resource Requirements**

- **Development Tools:** Unity Engine, GitHub open-source code repository
- **AI Tools:** Used for analyzing and optimizing monster AI behavior
- **Testing Tools:** Necessary game testing tools and platforms

6. **Evaluation Criteria**
   - **Success Metrics:** Item pickup and interaction work correctly, the character selection screen is functional, smooth scene transitions are implemented, and monster AI behavior is reasonable and aligned with expectations.
   - **User Feedback:** Through user experience testing, evaluate whether the improved game enhances the overall gaming experience.
7. **Team Responsibilities**
   - **Lead Programmer:** Responsible for optimizing item pickup, interaction, and character selection screen.
   - **Lead Tester:** Responsible for testing the implementation and stability of all features, ensuring no major bugs.
   - **Lead Game Developer:** Responsible for scene design and optimization, enhancing the diversity of game content and gameplay.