

Project Charter

Project Title: Project Alpha

Prepared By: Team Evolution

1. Project Purpose and Objectives

Purpose:

Project Alpha is an open-world zombie survival game being developed in **Unreal Engine 5.6**. The purpose is to deliver an immersive survival experience.

Objectives:

- Deliver a **functional alpha version** within 3 months including core survival mechanics, basic zombie NPC, and a small explorable environment.
- Develop a realistic town environment with survival mechanics and dynamic systems such as day/night cycles and resource scarcity.
- Demonstrate mastery of **UE5 technologies** including asset streaming, optimization.
- Showcase teamwork, project planning, and documentation aligned with SPM principles.
- Provide a scalable foundation for continuous future development.

2. High-Level Requirements

- **Gameplay Systems:** Health, stamina, hunger, combat, crafting, and inventory.
- **Non-Playable-Character:** Zombie NPCs with navigation, sensing, and reactive behavior.
- **Visuals:** Quality graphics with realistic towns, forests, and atmospheric environments.
- **Audio:** Environmental sound effects, combat audio, and ambient atmosphere.

- **Optimization:** Level streaming, LODs, and efficient asset management for smooth performance.

3. Scope Overview

In-Scope (Alpha):

- Core survival mechanics.
- Basic zombie NPC.
- Small explorable forest environment.
- Minimal UI and player movement.

Prototype & Future Scope:

- Advanced AI, animations, and sound.
- First complete town environment.
- Expanded survival mechanics (crafting, stamina, factions, events).
- Larger explorable regions post-alpha.

Out-of-Scope (for academic alpha):

- Multiplayer gameplay.
- Full commercial release.
- Procedural world generation.

4. Key Stakeholders

Team Evolution (Project Team):

Name	Role	Seat Number
Fahad Nasir	Project Manager	B23110006025
Syed Minhal Ali Raza	Lead Developer	B23110006161
Mughees Azhar	3D Modeler	B23110006074
Muhammad Raffay Sheikh	Marketing Expert/Developer	B23110006112

Muhammad Ahmer Siddiqui	Visual Effects Specialist	B23110006084
Muhammad Yahya Saleem	Visual Effects Specialist	B23110006121

5. Roles and Responsibilities

- **Project Manager (Fahad Nasir):** Oversees project planning, scheduling, risk management, and documentation.
- **Lead Developer (Syed Minhali Ali Raza):** Develops gameplay systems and Unreal Engine blueprints.
- **3D Modeler (Mughees Azhar):** Creates 3D assets for towns, buildings, characters, and props.
- **Marketing Expert/Developer (Muhammad Raffay Sheikh):** Handles presentation, branding, and promotional documentation and assist in game development.
- **VFX Specialist (Muhammad Ahmer Siddiqui):** Designs particle systems, lighting, and environmental effects.
- **VFX Specialist (Muhammad Yahya Saleem):** Supports visual polish, shaders, and environment detailing.

6. Milestones

Phase 1 – Alpha Build (0–3 Months):

- Implement health, hunger, and stamina systems.
- Add basic zombie NPC.
- Develop a small forest zone.
- Establish player movement and minimal UI.

Phase 2 – Prototype (3–12 Months):

- Add advanced combat mechanics, animations, and sound.
- Build the first fully realized town as a vertical slice.
- Enhance AI sophistication and optimization.

Phase 3 – Continuous Development (12–24+ Months):

- Expand with additional towns, forests, and regions.
- Add crafting, factions, and procedural events.
- Incorporate feedback and polish mechanics.

7. Risks and Mitigation

- **Scope Creep:** Open-world ambition may exceed limits.
Mitigation: Focus on one complete area first and restrict scope.
- **Technical Challenges:** Optimization for large worlds.
Mitigation: Use UE5 profiling, LODs, and modular design.
- **Team Burnout:** Large workload across semester.
Mitigation: Distribute tasks effectively and set realistic milestones.

8. Authority and Approval

The project is formally authorized by **Team Evolution** under the authority of Project Manager. The team collectively manages project execution, with oversight from the course instructor.

Prepared By:

Team Evolution

Approved By (Project Team Representative):

Fahad Nasir – Project Manager

Seat No: B23110006025

Reviewed By (Instructor):

Maryam Feroze – Course Instructor
