Project Proposal

ADP Program	Computer Science
Project ID *(for office use)*	
Title of Project	Tanks!
Type of project	[✓] Traditional [ ] Industrial [ ] Continuing
Nature of project	[✓] **D**evelopment [ ] **R**esearch [ ] **S**urvey
Area of specialization/ Field	Combat Games

Project Group Members

Sr.#	Reg. #	Student Name	CGPA	Email ID	Phone #	Signature
(i)	TeamLead AF23LHB3047	AbdulRehman Zahid	3.70	mrar08523@gmail.com	+92 342 4057037	
(ii)	AF23LHB3292	Afzaal Ahmad	3.53	afzaal78002.pjb@gmail.com	+92 313 1499910	

Declaration: Project group members have cleared all prerequisites courses For project as per their degree requirements.

Supervisor Name and Signatures: **Principal:**

Sir Usman   _____

1. Introduction

Tanks! is a tactical 3D tank combat game developed using **Unity**, where the player controls a tank and battles against enemy tanks in a confined arena. The gameplay is inspired by the classic tank battle games but enhanced with modern visuals, improved mechanics, and level-based challenges. The player must strategically move, aim, and shoot to survive and eliminate all opponents within the battlefield.

2. Objective

The objective of this project is to design and develop a fun and skill-based tank combat game that emphasizes player reflexes, control, and environmental awareness. This project will also demonstrate core game development concepts in Unity, including physics-based shooting, collision handling, level design, and user interface implementation.

3. Project Scope

- **Tank Mechanics**
  Implement smooth movement and rotation controls for the tank and turret, along with realistic shooting mechanics.

- **Level Design**
  Create multiple arena-style levels with increasing difficulty and different layouts, including obstacles and walls.

- **3D Environment**
  Develop a visually appealing 3D battlefield with destructible elements, themed environments, and level transitions.

- **Scoring & Game Progression**
  Add a scoring system, life/health management, and win/lose conditions for each level.

- **Power-Ups (Optional)**
  Introduce gameplay elements like temporary shields, ammo boosts, or speed-ups to enhance player performance.

- **User Interface (UI)**
  Design intuitive HUD elements showing health, score, and level progress, along with main menu and pause options.

- **Audio & Visual Effects**
  Integrate sound effects for movement, shooting, and explosions, along with smooth visual animations.

- **Performance Optimization**
  Ensure the game runs efficiently on various systems by following Unity optimization techniques.

4. Summary

"Tanks!" will be a fully developed tank battle game that demonstrates strong fundamentals in Unity-based game development. With its blend of tactical gameplay, interactive environments, and progressive challenges, the final product aims to deliver an enjoyable and complete combat experience suitable for casual play and future expansion.