

## Project Description: 2D Tank Battle Game

We are looking to develop a **2D turn-based tank battle game** set on an **8x8 grid-based battlefield**, where two players control tanks and engage in combat.

### Game Requirements:

#### 1. Game Board & Controls:

- The game takes place on an **8x8 board**.
- Two players control their tanks using the keyboard:
  - **Player 1:** Moves with **W, A, S, D** and shoots with **Space**.
  - **Player 2:** Moves with **Arrow Keys** and shoots with **Enter**.

#### 2. Combat Mechanics:

- Each player owns one or more tanks, with the following attributes:
  - **HP (Hit Points):** The tank's health.
  - **Armor:** Reduces incoming damage from enemy projectiles.
  - **Damage:** The amount of damage the tank's projectile deals.
  - **Price:** The cost of the tank (used for balancing or a purchasing system).

#### 3. Weapon System:

- Tanks can fire projectiles, categorized into three types:
  - **Standard Projectile:** Deals **damage equal to (projectile damage - target's armor)**. If the armor value is higher than the projectile's damage, the tank takes **0 damage**.
  - **AP Projectile (Armor Piercing):** Ignores the target's armor and deals **full damage directly to HP**.
  - **HE Projectile (High Explosive):** Causes **area-of-effect (AoE) damage** around the impact location, affecting multiple targets.

#### 4. Game Objective:

- Players must **outmaneuver and destroy** their opponent's tanks using **strategic positioning and the right choice of ammunition**.