

# Planning

## Game Theme

### Football Penalty Shootout

## Timetable/Schedule

**Nov 16–19:** Brainstorm game theme and concept.

**Nov 20–24:** Create Game Structure. Build Core Mechanics: Develop ball movement, player controls, and basic physics for the ball bouncing and shots.

**Nov 25–30:** Finish the whole game, add stadium sounds and crowd noises.

**Dec 1–5:** Allow students and teachers to test and give feedback on the overall experience, refine the game based on feedback.

## Features

### Scoring and Ball Bounce

**Scoring:** If the ball hits the goal, the player scores, and then the ball will return to the penalty spot.

**Bounce Back:** After hitting the goal, goalkeeper, or obstacles, the ball bounces back toward the player for a potential rebound shot. The player can keep shooting until they score or lose a life.

### Misses

**Shot Misses Goal:** If the ball misses the goal entirely, the player loses one life.

**Failed Catch:** If the ball rebounds but the player fails to hit it back, they also lose one life.

**Lives:** The player has three lives in total.

### Obstacles and Power-ups

**Obstacle Barriers:** Cones or markers will be placed in front of the goal. When the ball hits a cone, it will disappear, and the ball will bounce back.

**Goalkeeper:** The goalkeeper moves left and right to block shots, adding unpredictability to the gameplay.

### Rounds and Scoring

The game proceeds in rounds, with each successful shot scoring a point.

The goal is to score as many points as possible before running out of times

Shots can be direct or follow-up rebound shots, but they must land within the goal's range to count.

### Game Over Condition

The game ends when the player loses all three lives.

The final score is the number of goals scored before lives are depleted.

### Control System

**Movement & Shooting:** The player uses arrow keys to move left and right, when the ball comes to the player's feet, the player automatically shoots.

## Storyboards & Screens

**Start Screen:** The player sees the game title with a "Start Game" button. Option to view high scores or instructions.

**Game Begins:** The player moves into position for the first penalty shot. Obstacles and a goalkeeper appear in front of the goal.

**Shot Attempt:** The player shoots by pressing the spacebar. If the ball hits the goal or goalkeeper, it rebounds for another shot.

If the ball misses or the player fails to rebound, a life is lost.

**Score Display:** After each goal or miss, the score is updated, and a new ball is placed for the next round.

**Game Over Screen:** When all lives are lost, the final score is displayed, and the player can either restart the game or quit.

## How do we plan to work together

One teammate will focus on creating the visual elements such as the football field background, goalposts, and player animations.

The other teammate will handle the game logic and interactions , including shooting mechanics, scoring, and player control.

Once the core components are complete, both will work together to enhance the gameplay experience , ensuring smooth interaction and refining the final version of the game. This cooperative approach ensures efficient development and a polished end product.

