

CSS326 Project Proposal

Project name

I Need More Bullets!! - An Arcade Game Based On Unity

Group Members

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Project Description

Game Play (Front-end)

This is a typing-based game created on Unity. You are the spaceship and you must shoot the enemy to score by typing. You play the role of a spaceship pilot who must defeat all enemies trying to attack you. The game gets progressively harder as time elapses. Finally, there is a leaderboard ranking the players performance according to their score and time survived.

Database Implementation

The database will be the location where most information is stored. Essential data such as login details, unlockables, and achievements will be kept in separate tables with the player id being the primary key holding them together. Not to mention, the leaderboard information will also be held on a dedicated table.

User Journey

1. Register/Login

User will first encounter an authentication system where they will be able to register an account using their personal information. In the back-end, this will be the main table that holds the user ID. Which will be used to map all achievements, settings, and unlockables.

2. Game Session and Results

After login, the user will gain access to the main game where they will play and generate a result from it.

3. Leaderboard

At the end of every match, the user's results will be ranked on the leaderboard which is also a database in the back-end.

4. Settings

From the user's first game, they will get the main idea of the game and adjust the settings according to their needs, such as difficulty level and game volume.

5. Achievements & Unlockables

Throughout the user journey, users have optional quests and achievements they can try to get. Some of these may unlock additional ship or bullet skins according to their condition.

User Interface

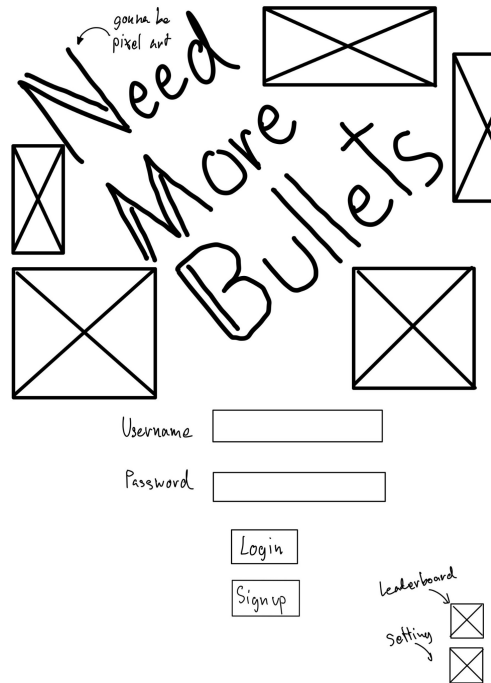


Figure-1: Login page

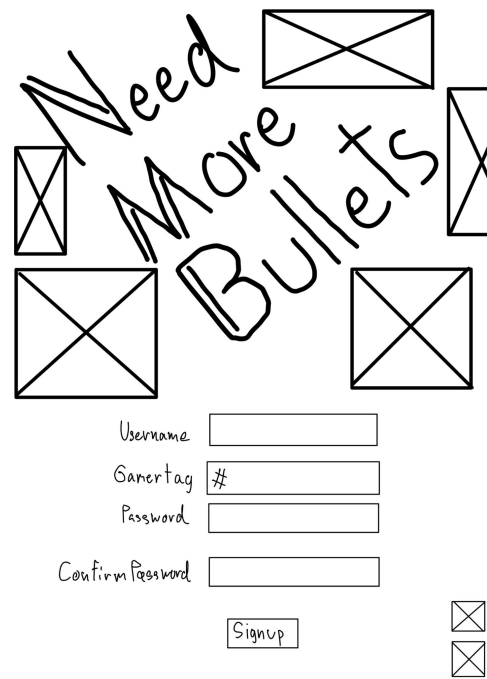


Figure-2: Signup page

Need More Bullets

Next word
START
Type start to start the game

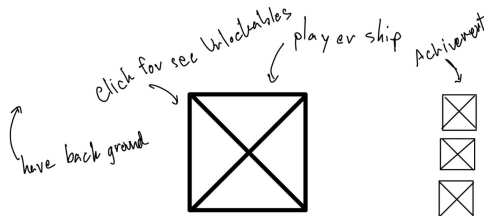


Figure-3: Game Session

Unlockables

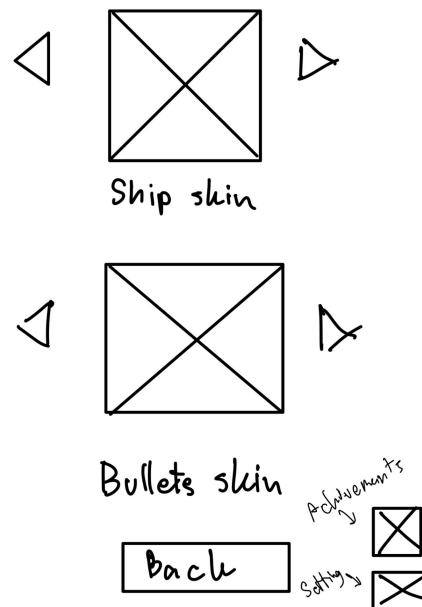
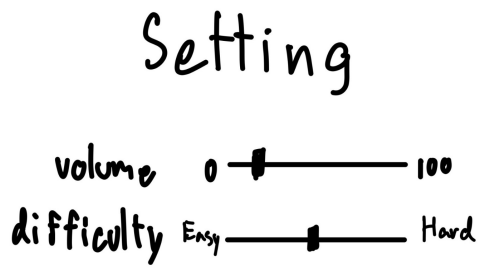


Figure-4: Unlockables



Back

Figure-5: Setting

Leaderboard

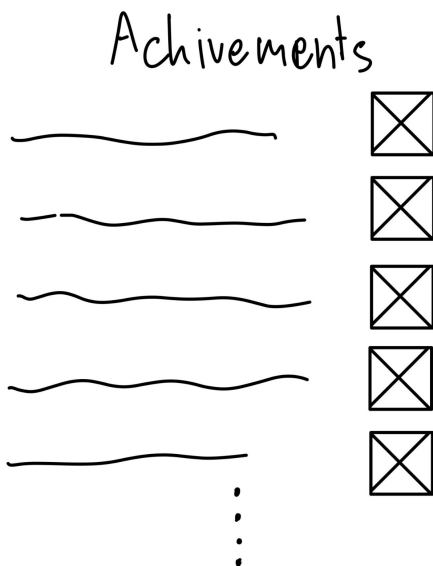
Difficulty Hard ▾

Game tag	score
★ Haul	8888
★ CHICK	1574
★ Ken	823
★ 4	700
★ 5	545
★ 6	421
⋮	
★ 10	20

Back



Figure-6: Leaderboard



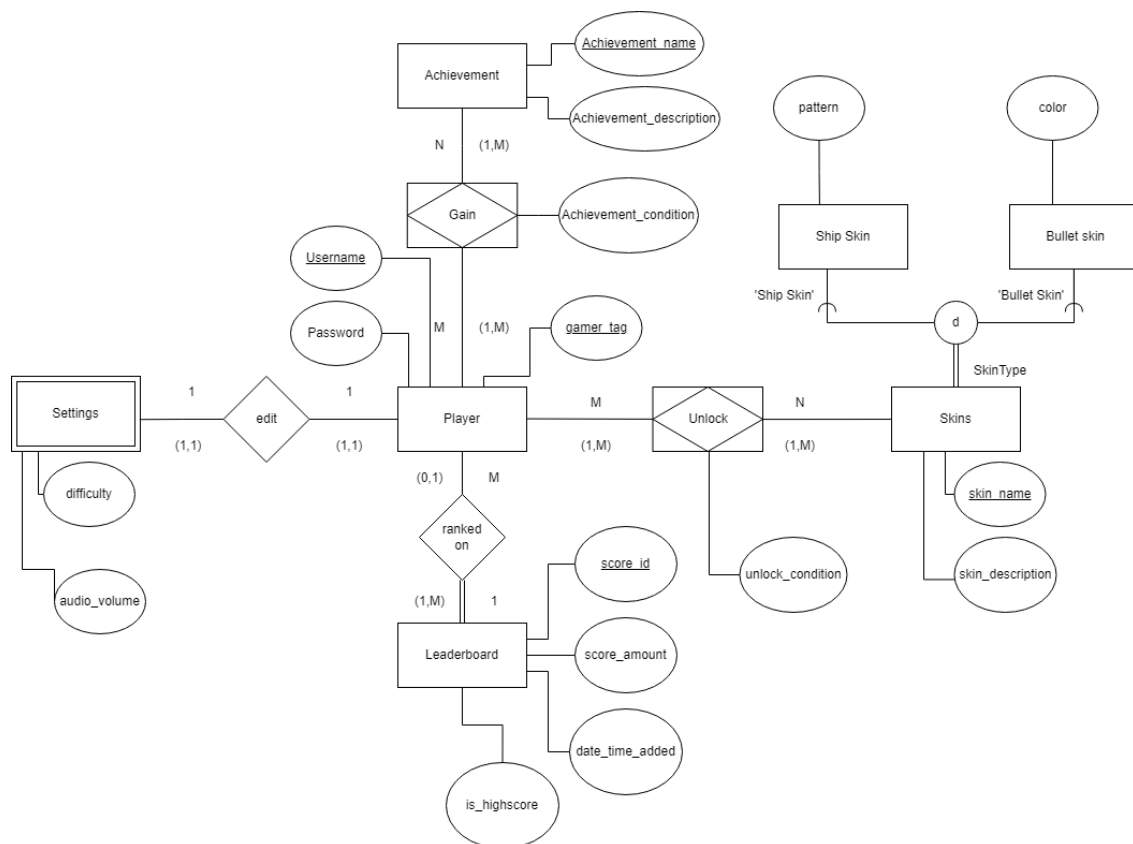
Back

Figure-7: Achivements

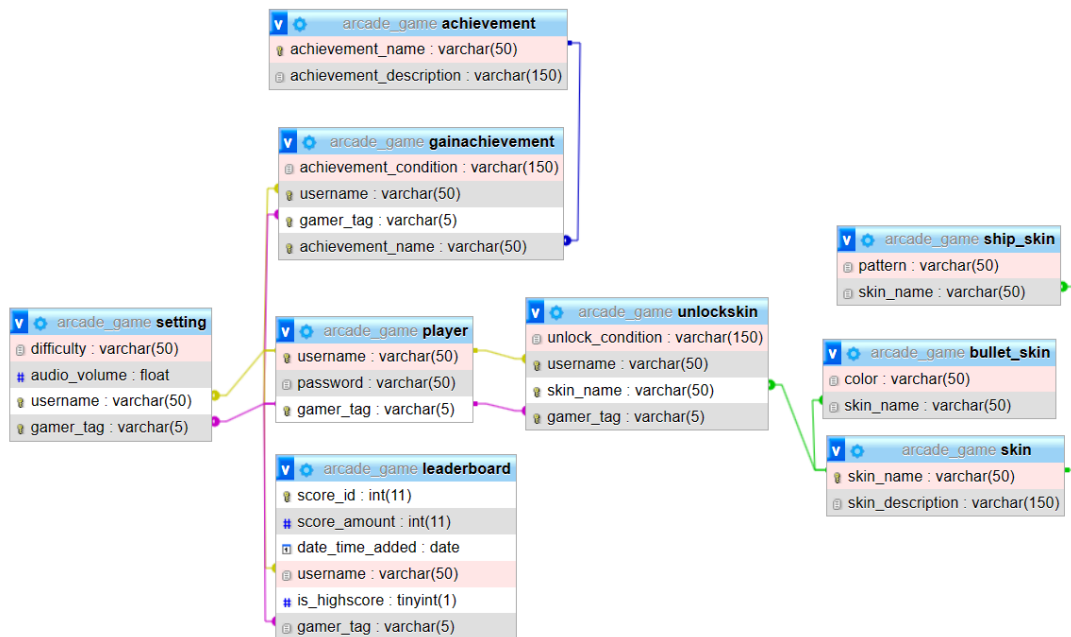
Database Design

- **Player**: This will be the main entity of this database. The player id attribute of this entity will be the one that links to most entities, such as the settings, leaderboard, and unlocked items will be mapped to this.
- **Settings**: The personal settings of each player. Each player will have their own preferences of options they like such as their volume levels and difficulty.
- **Leaderboard**: Board ranking the players according to their high scores and performance.
- **Skin**: Optional customization for your playable character.
- **Ship skin**: Customizable colors and patterns for your ship.
- **Bullet skin**: Customizable bullet effects for your ship.

ER Diagram



Physical Design for MySQL



Timeline

Week	Month	Date	Plan
Week 11	Oct	24	Proposal presentation
Week 12	Oct	31	Core gameplay (Unity + C#) + Database creation
Week 13	Nov	7	Database to Game implementation (SQL + C#) [First unrefined version of the game complete]
Week 14	Nov	14	Advanced gameplay and database techniques addition
Week 15	Nov	21	Final touch-ups, bug fixes, and submission