Doodle Shout

Project overview

Doodle Shout is an Android game that was inspired by the game called “Doodle Jump.” The player will control the character (The Doodler) that can constantly jump upward on the platform. The goal of this game is to achieve the highest score. The unique mechanics of this game are tilt control and sound control. An accelerometer will allow the user to tilt the device left or right to control the character horizontally. The player can also record their voice into the device's microphone to give the doodler an additional jump boost. Using a SQLite database, the application will keep the top five high scores locally and show them as a leaderboard on the main menu.

Classes

- MainActivity

Logic for the main menu. The app starts here. Muting music, checking microphone permission, initialising database and starting the game are performed here.

- GameActivity

This activity manages the live gameplay screen, handling all real-time input by initializing the accelerometer for movement and the microphone for the jump boost mechanic.

- GridBackgroundView

A fragment for procedurally generated grid background for main menu. It runs a simple animation loop to create a dynamic visual effect.

- GameView

A fragment for procedurally generated where all rendering and logic happens within a continuous game loop. It handles drawing the character and platforms, physics, collision detection, and procedurally generating the level as the player ascends.

- PlatformEntity

Data class that represents a single platform in the game. It holds the platform's dimensions and coordinates, along with the collision detection logic to check if the player has landed on it.

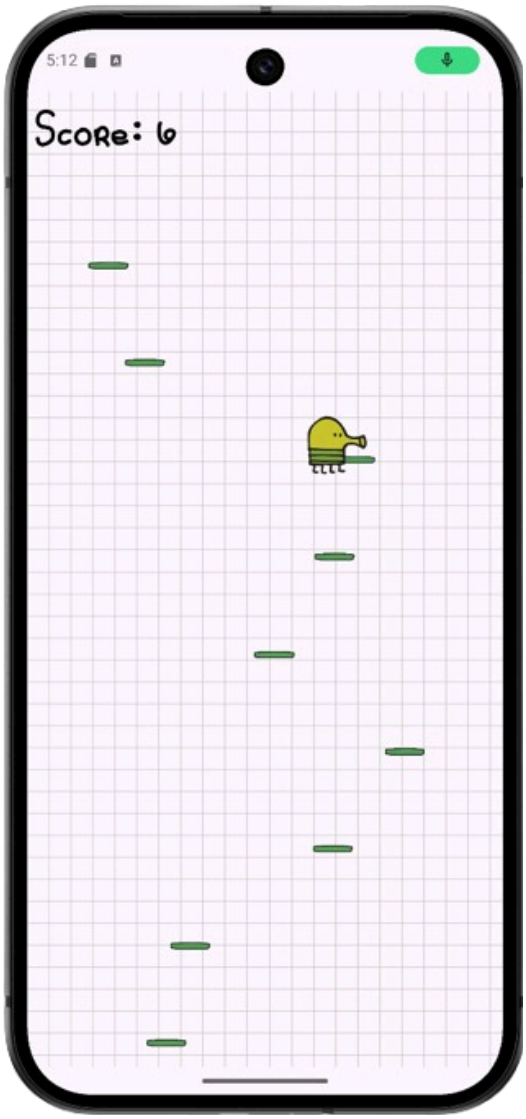
- MySQLiteHelper

Initializing SQLite database for creating the scores table and exposes the essential methods to insert new high scores after a game and query the top five to be displayed on the leaderboard.

- ScoreEntry

Data class that defines the object structure for a single score record retrieved from the database.

Main Menu page



GameView Page