

Basket Game – Jack App (Project 9)

Concept / Idea

This project is a simple basketball shooting game written in Jack. The player controls the horizontal position of the ball, selects the shooting power, and attempts to score baskets within a limited time.

Architecture

Main.jack

The entry point of the program.

This class creates a BasketGame object, starts the game, and disposes of resources once the game ends.

Main logic: initialization, running the game loop, and cleanup.

BasketGame.jack

This class manages the overall game flow and logic.

Responsibilities:

- ❖ Display opening and game-over screens
- ❖ Manage score and timer
- ❖ Handle user input
- ❖ Control the three shot phases: positioning, power selection, and shooting
- ❖ Detect successful baskets and update the HUD

Main logic: coordinating game state, input handling, and scoring.

Ball.jack

Represents the basketball and its physical behavior.

Responsibilities:

- ❖ Store ball position and velocity
- ❖ Apply gravity and movement updates
- ❖ Handle collisions
- ❖ Draw and erase the ball on the screen

Main logic: movement physics, collision checks, and rendering.

Motivation

We chose to create a basketball game because it allowed us to combine user interaction, animation, and game logic, while practicing object-oriented programming in Jack.

Video Link

<https://drive.google.com/file/d/1SPPUwSLVsj2uC-mstVzJRHPZGCBzfff2/view?usp=sharing>

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