The Budget Dallas Cowboys

---------- Bucky's Barrels Project ----------

Software Design Document

Version 1.1

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The Budget Dallas Cowboys

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Introduction

Document Purpose

This document outlines the architecture throughout multiple design levels.

Bucky's Barrels Project

Bucky's Barrels is a mobile-friendly 2D game allowing the player to go through obstacles, obtain powerups, and other gameplay mechanics.

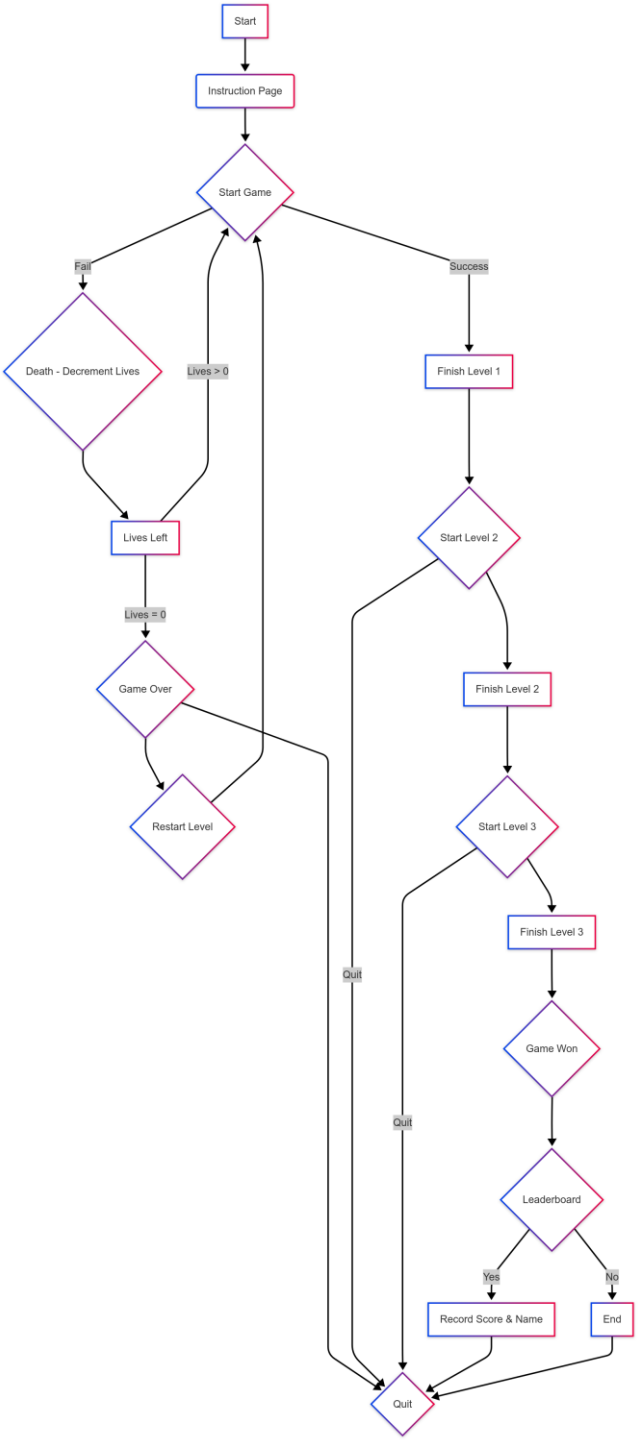
Requirements

2.1 Trackable Hit Points / Points (Mandatory)
2.2 Mobile-Friendly Controls (Mandatory)
2.3 Player Name Leaderboard (Optional)
2.4 Set Number of Lives (Mandatory)
2.5 Obstacle Movement (Mandatory)
2.6 Multiple Levels (Optional)
2.7 Distinct Background Themes (Optional)
2.8 2D Physics for Character Movements (Mandatory)
2.9 Power-Ups (Optional)
2.10 Transition Loading Screens (Optional)
2.11 Sound Effects (Optional)
2.12 Randomized Obstacle Appearance (Optional)
2.13 Portrait/Vertical Orientation (Mandatory)
2.14 Instruction / Help Screen (Mandatory)
2.15 Default Character Attributes (Mandatory)

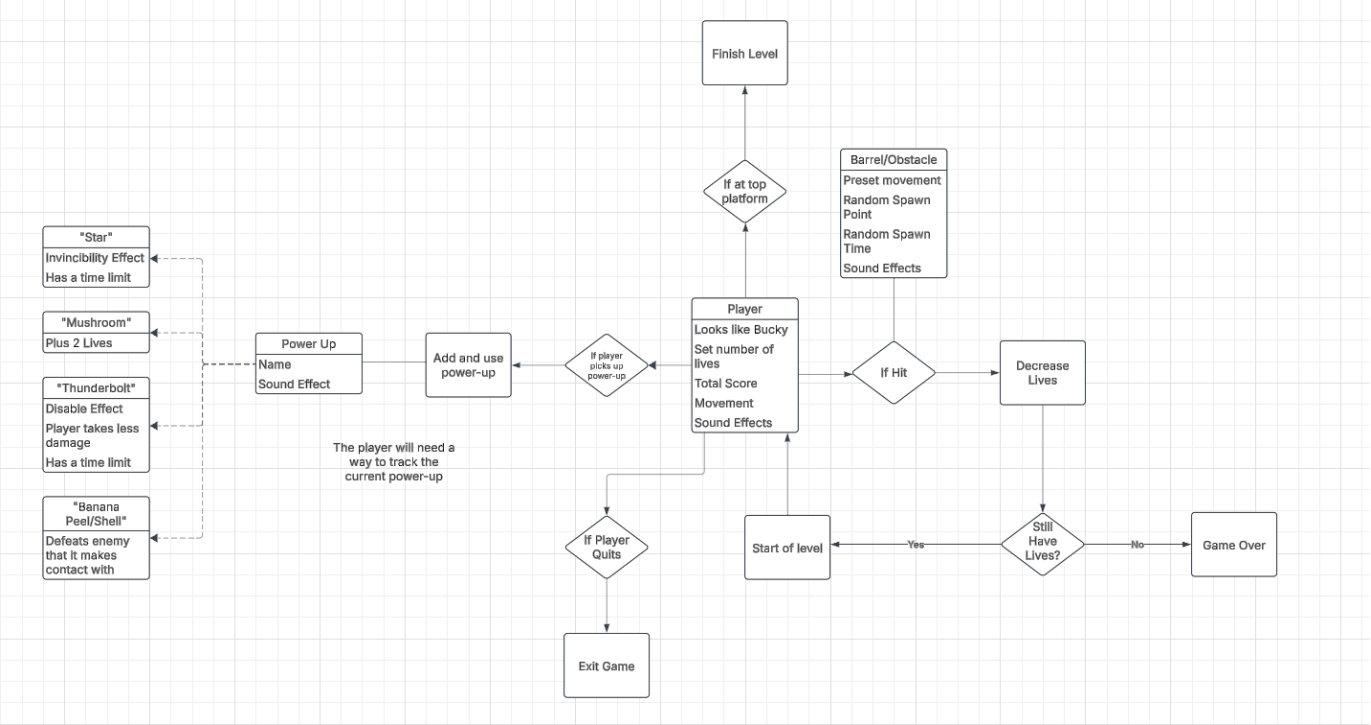
Traceability Matrix

Requirement:	Design Meets Requirement?	How?
2.1	P	Death system
2.2	Not yet	
2.3	P	Leaderboard box
2.4	P	Death system
2.5	Not yet	
2.6	P	Level boxes/advancement system
2.7	Not yet	
2.8	Not yet	
2.9	Not yet	
2.10	P	In concept; design has a transition period after finish of one level and before the next
2.11	Not yet	
2.12	Not yet	
2.13	Not yet	
2.14	P	Shown to player upon game start, before start of first level
2.15	Not yet	

Diagram



Simple Level Diagram


Finish Level
If at top platform
Barrel/Obstacle
Preset movement
Random Spawn Point
Random Spawn Time
Sound Effects
"Star"
Invincibility Effect
Has a time limit
"Mushroom"
Plus 2 Lives
"Thunderbolt"
Disable Effect
Player takes less damage
Has a time limit
"Banana Peel/Shell"
Defeats enemy that it makes contact with
Power Up
Name
Sound Effect
Add and use power-up
If player picks up power-up
Player
Looks like Bucky
Set number of lives
Total Score
Movement
Sound Effects
If Hit
Decrease Lives
The player will need a way to track the current power-up
If Player Quits
Start of level
Yes
Still Have Lives?
No
Game Over
Exit Game

Conclusion

References

https://kylejonesgames.wordpress.com/wp-content/uploads/2018/04/donkey-kong-game-design-doccument.pdf