Luleå University of Technology (LTU)

Cube Run

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Course: *S0005E Introduction to Computer Game Development*
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Contents

1   Document History

Revision	Date	Name	Comment
0.01	15.04.20	start	First draft.
0.02	16.04.20	time planing	added a time plan, maybe not the best plan but something to hold myself to.
0.03	04.05.20	time planing expanding	adding more tasks to be done.

2   Game goals

- Quick and Fun

- Simple

- Procedural track generation

- Highscore

- Timesink

2.1   High concept

Cube run is a mix of "the impossible game" and "subway surfer".
A fast and simple game about running along a track trying to get as many points as possible and a highscore to match.

2.2   Who, What, How?

- Who - competitive people, highscore chasers.

- What - surviving ever faster movement.

- How - the simplicity of the game will make it great (I will make it work).

2.3   Specifics

- Platform(s): starting out for PC but could be moved over to mobile and consoles with time.

- Gameplay: Simple, run faster and faster through a map trying not to die.

- Goals: Only one goal, survive (Highscore rules).

3   Story overview

going from the start screen puts the player right in the action with a short countdown to allow for settling in. then running through blocks of the map trying to survive as long as possible as the speed picks up. (story?)

4 Game controls

w,a,s,d controls (might only need a and d), space to jump.

5 Technological requirements

- Development tool - Unity

- Implementation of:
  - Camera - static third person camera
  - Physics - the small amount of physics in my head will use Unity's internal system.

- Design tool - none, the game will have extremely simple graphics from Unity.

- Cheats - a invulnerability will be used to test the game.

- System requirement - no idea, will be tested on this machine:
  - Processor: Intel Core i7-4790K 4.00GHz
  - Ram: 16GB
  - GPU: NVIDIA GeForce GTX 1080

6 Title/start screen

TO BE ADDED - NO MENU AVAILABLE

7 Game flowchart
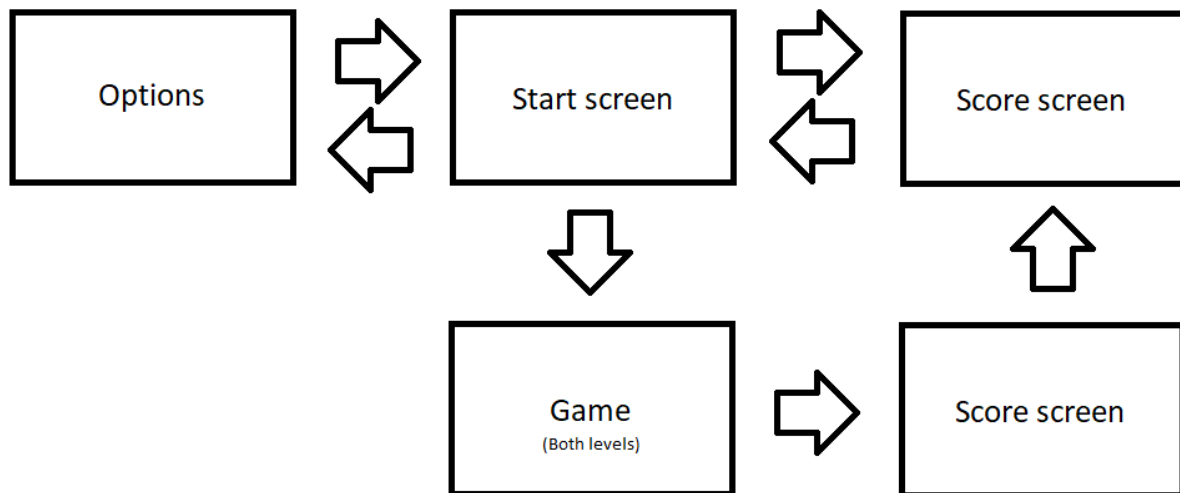
8 loading screen

TO BE ADDED - NO LOADING SCREEN DESIGN DONE YET

9 HUD system

the HUD will be simple with only relevant information such as current score and the highscore to beat. if speed is a factor then speedometer will also be added.

10 Power-ups/state modifiers

- Time slow - slow down the speed of which the track pass.
- Immortality - become immortal for a short time

11 Health

The cube will have no health, one hit and you are out. (if to hard then I will add a 3 heart system and a small reset system.

12 Scoring

Points will be awarded based on distance traveled and if you manage to pick up coins.

- Highscore will be local to start.
- Achievements would be fun, but not in the plans right now.

13   rewards and economy

small section because no plan on having any but maybe earning coins based on score and then be able to buy different skins for the cube (colors and materials).

14   Game progression outline

TO BE ADDED - NOTHING TO PUT HERE YET

15   World overview/level select/navigation screen

TO BE ADDED - NOTHING TO PUT HERE YET

16   Universal game mechanics

TO BE ADDED - NOTHING TO PUT HERE YET

17   Game levels

- A training level that is hand built.

- A "hard mode" level with procedural track generation.

18   Music and SFX

TO BE ADDED - NOTHING TO PUT HERE YET
all these kind of games tend to have a techno soundtrack..

19   Time planing

Week	Big project
17	1. character movement 2. start work on level design
18	1. character/level interaction 2. Trap and spikes 3. start work on procedural generation
19	1. Menu navigation 2. score calculator 3. look into powerups 4. start on HUD restart
20	1. add options 2. add local highscore 3. integrate options to work within game.
21	1. add "cosmetics"
22	1. make final touches
23	1. fix bugs...