



Dr. Yul-jeon Gomguk

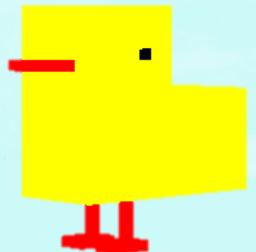
Software

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2018311882 Yoon SoHee

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01

Introduction

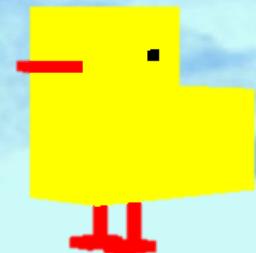
Game Info

Game name: Duck Cube

Game Type: 3D Maze

Design: From '길 건너 친구들'

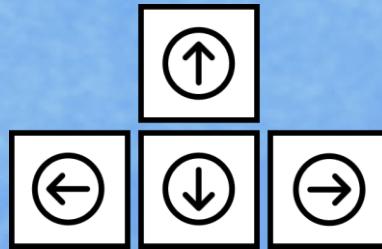
Goal: start from blue cube, arrive to red
cube



02

Demo

moving – character:



arrow key: moving

SHIFT

SPACE

shift key: dash

space key: crying

moving – map:



a, d: map rotation
s: map reverse



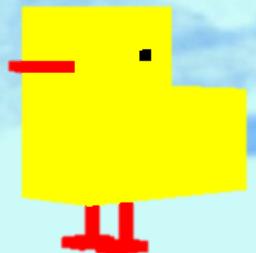
02

Demo

“

Let's Play The Game!!

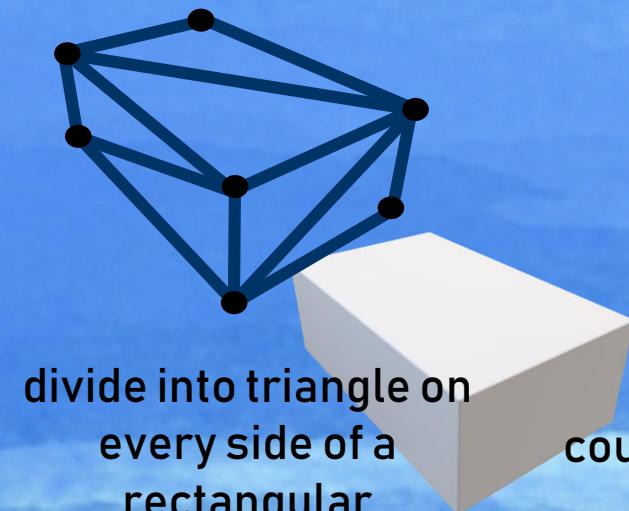
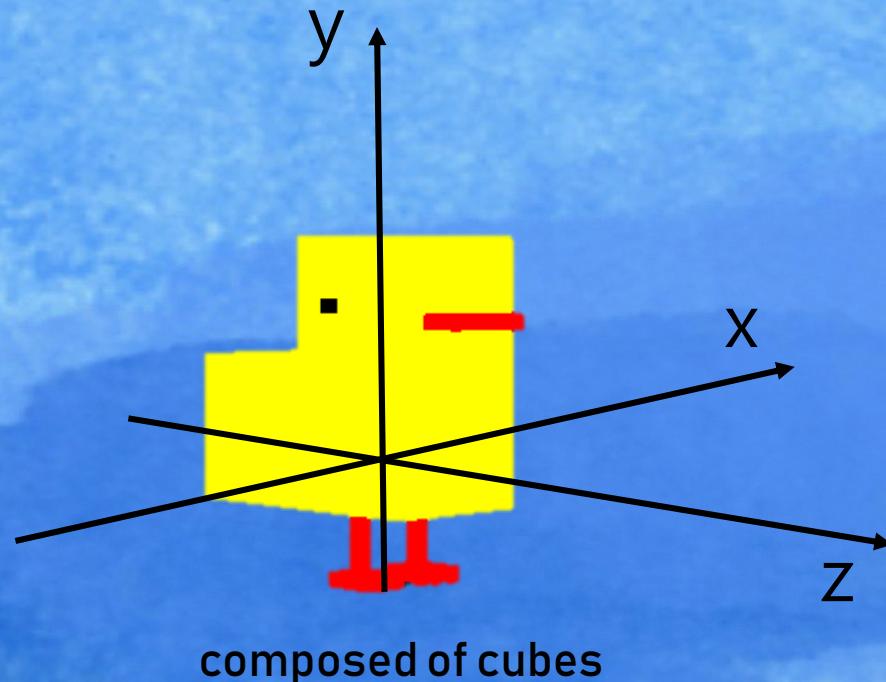
”



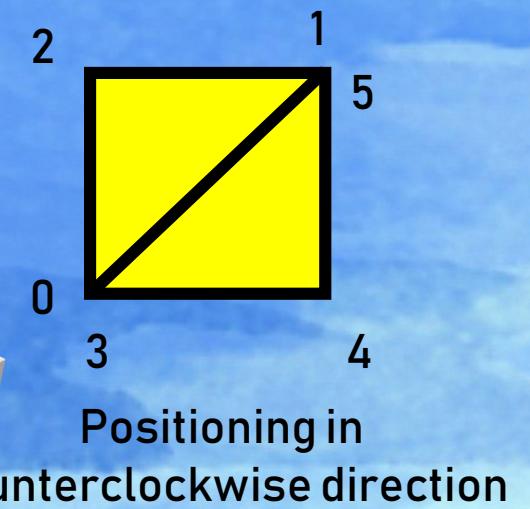
03

Implementation

Character



Index Buffering

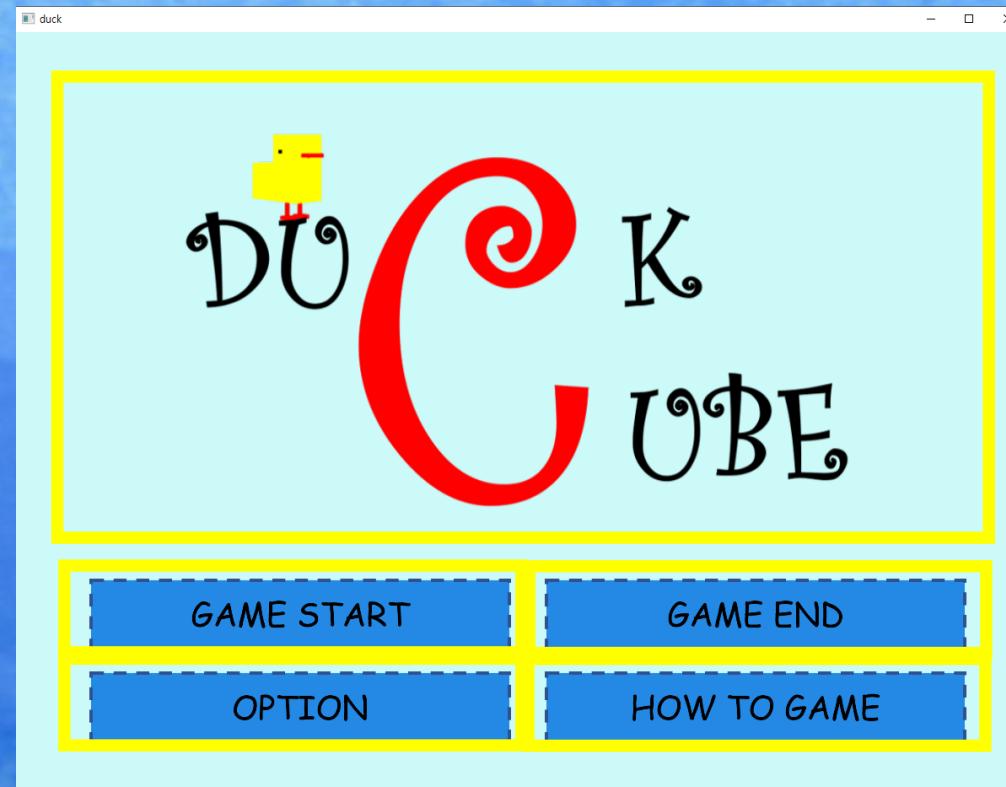


Create character using vertex that make up duck

03

Implementation

GU
"dear imgui"



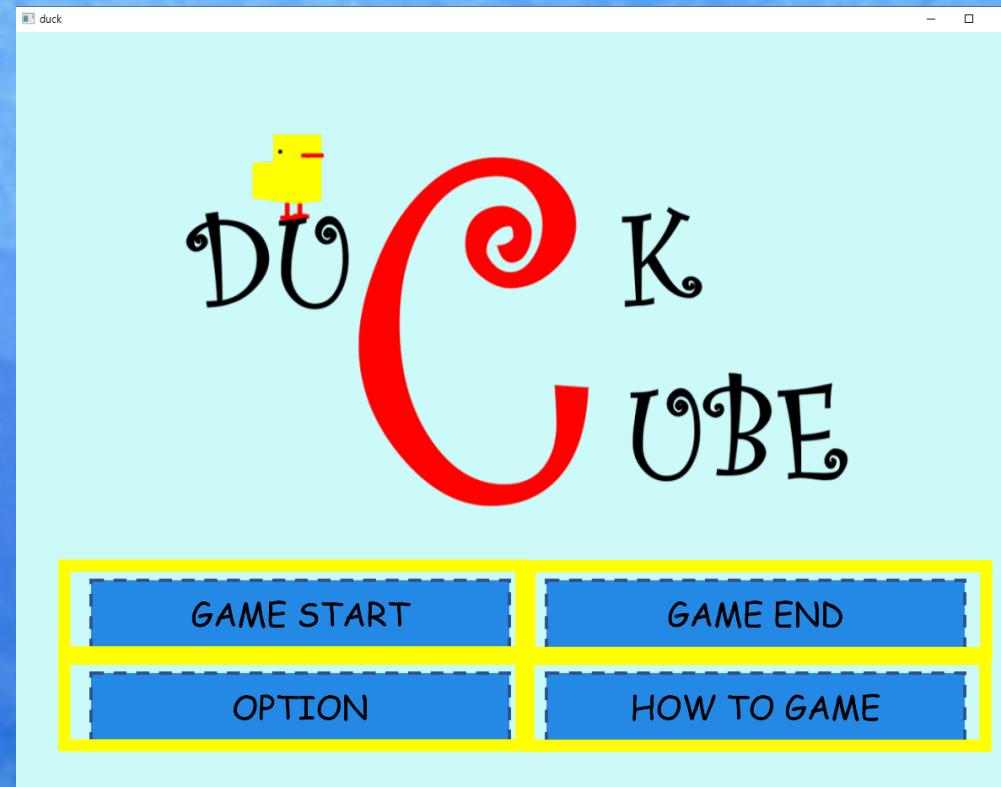
Insert and position game logo and button UI



03

Implementation

GU
"dear imgui"



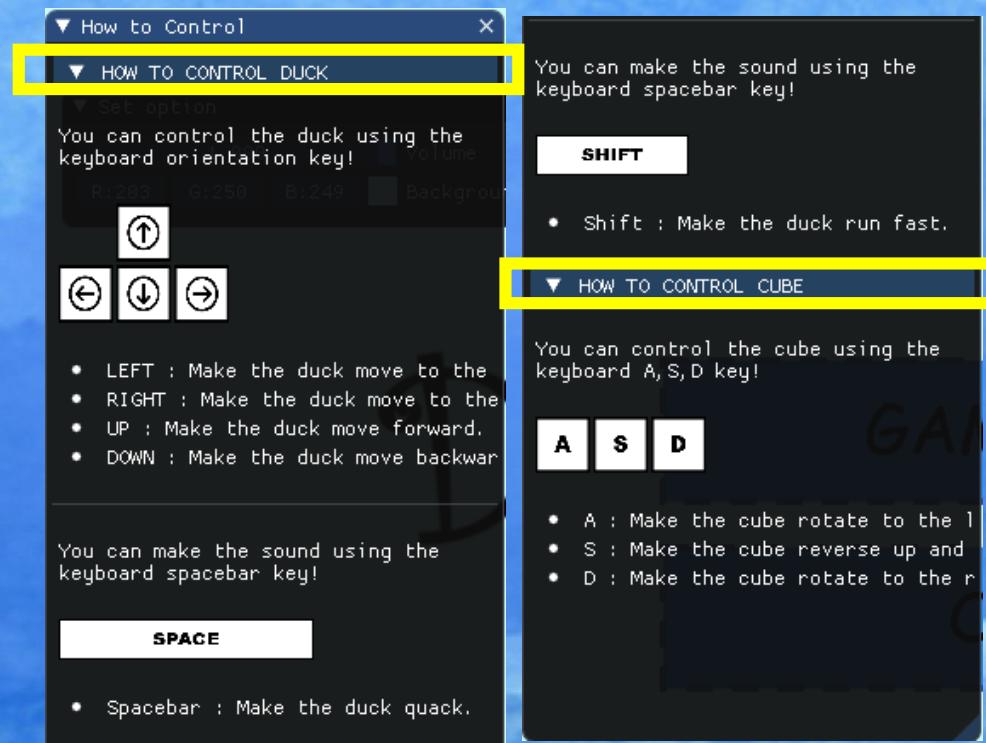
Insert an invisible button over the game button UI



03

Implementation

GU “dear imgui”



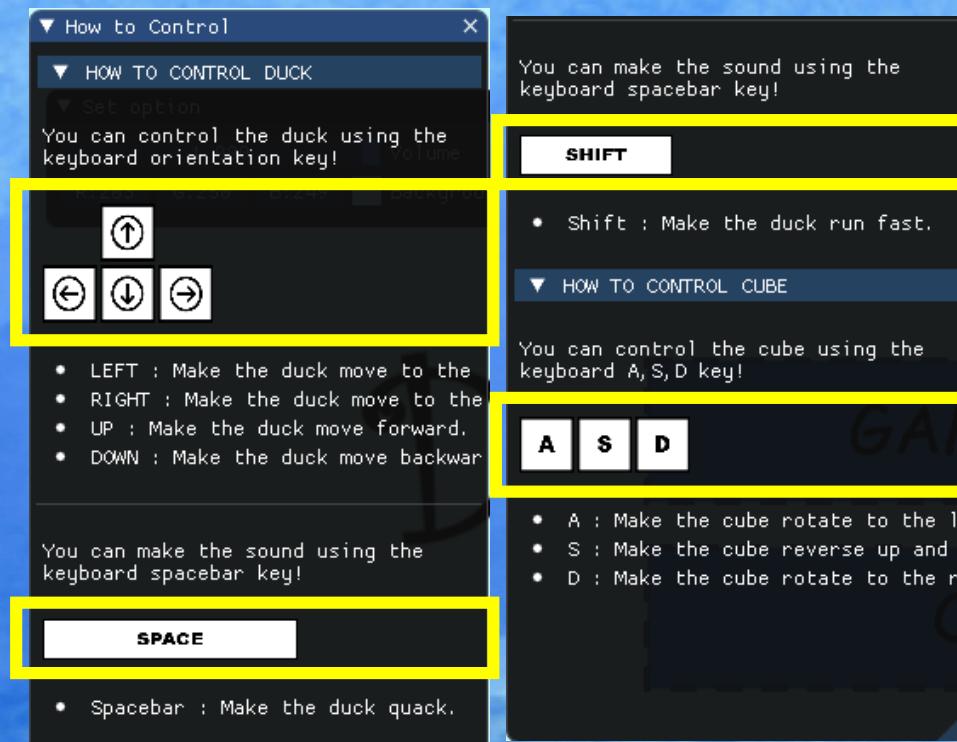
Create Collapsing Header Effect



03

Implementation

GU “dear imgui”



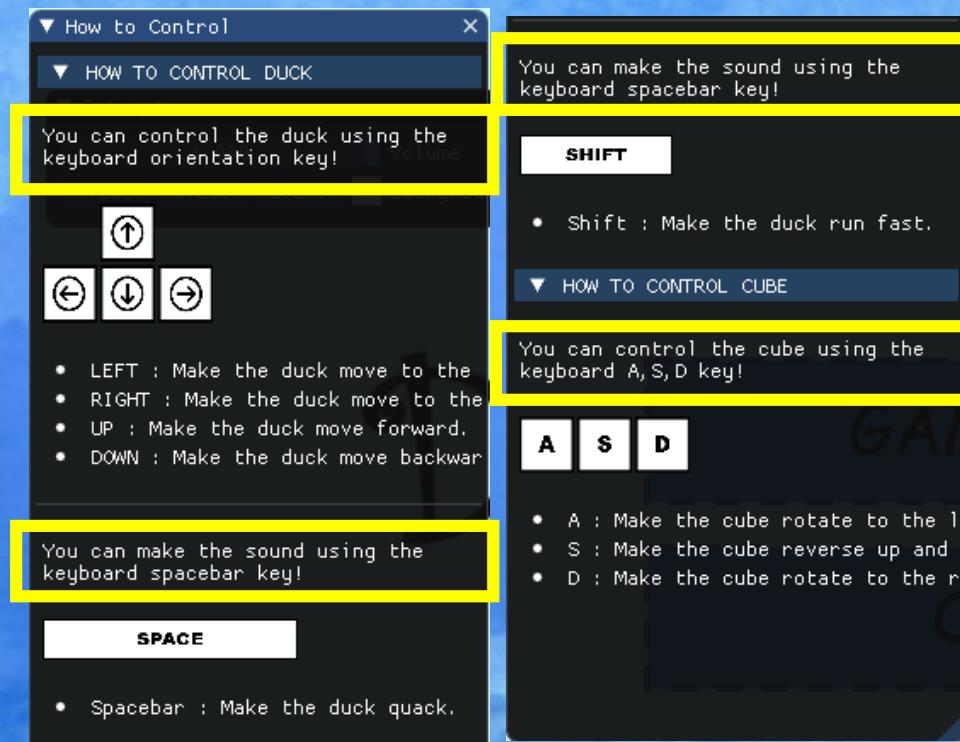
Insert Image



03

Implementation

GU “dear imgui”



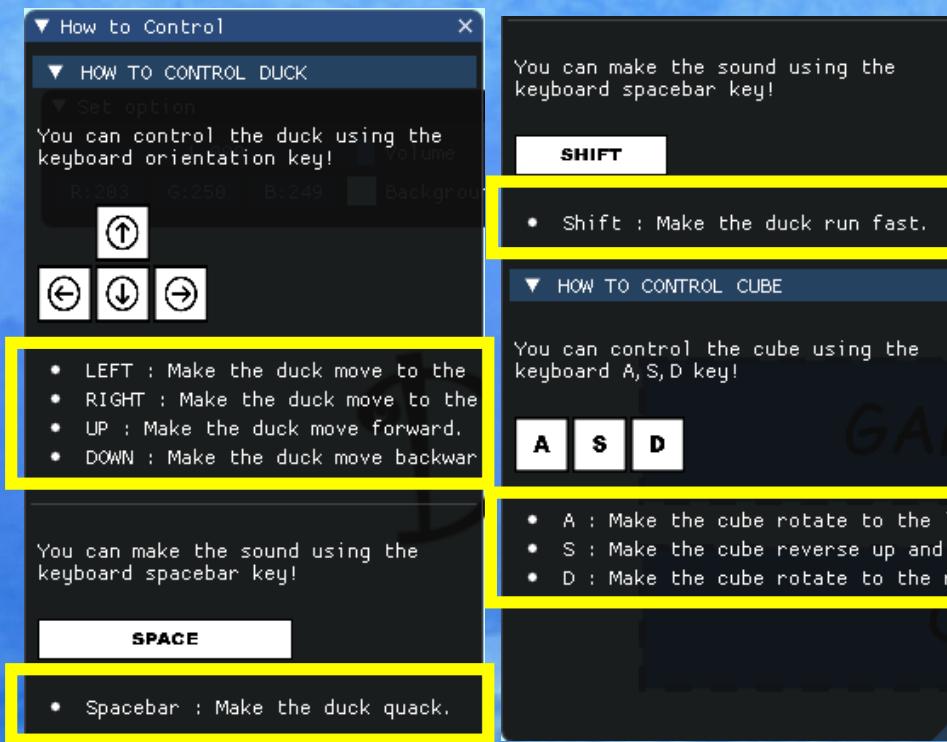
Wrap Text



03

Implementation

GU “dear imgui”



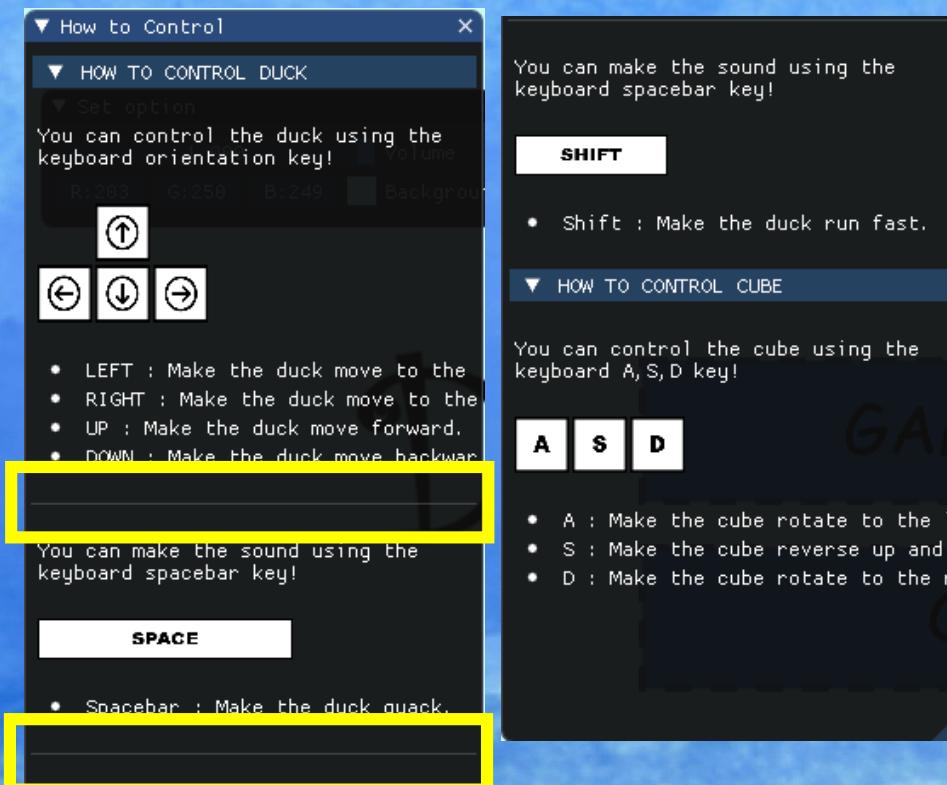
Add Bullets to Text



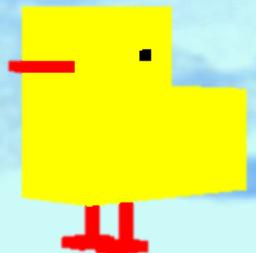
03

Implementation

GU “dear imgui”



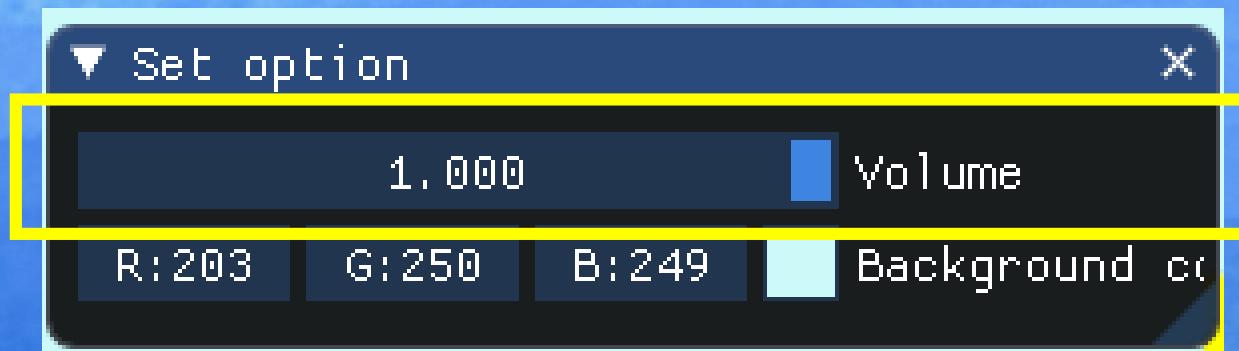
Insert Seperator



03

Implementation

GU
"dear imgui"



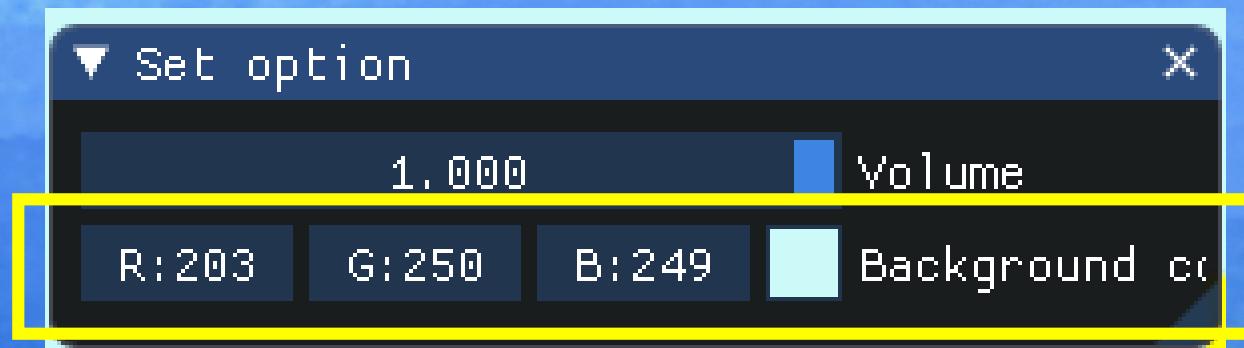
Insert slider for volume adjustment



03

Implementation

GU
"dear imgui"



RGB controller for background color adjustment



03

Implementation

Text & Sound

"str_truetype & irrklang"

If you press space key, duck will cry

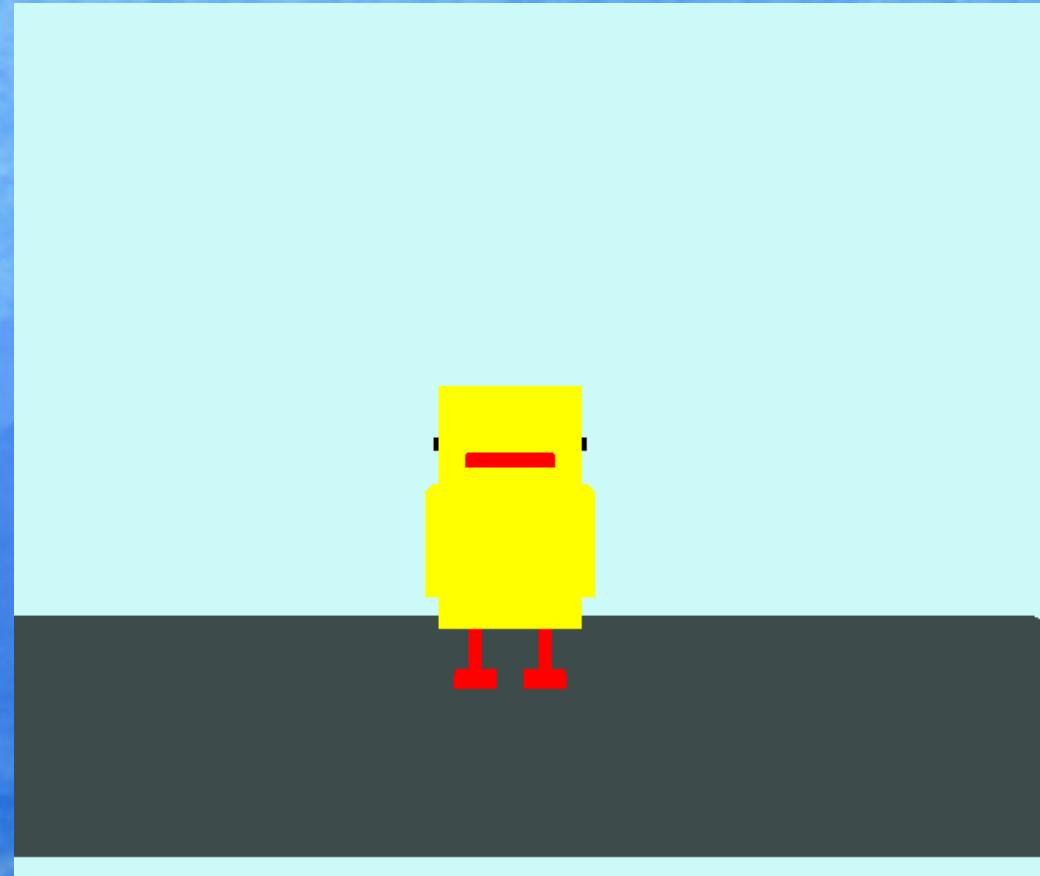
Press space key to start



03

Implementation

Duck Moving

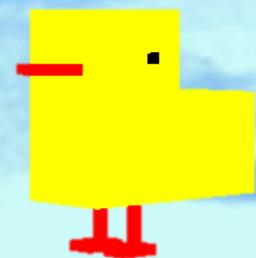
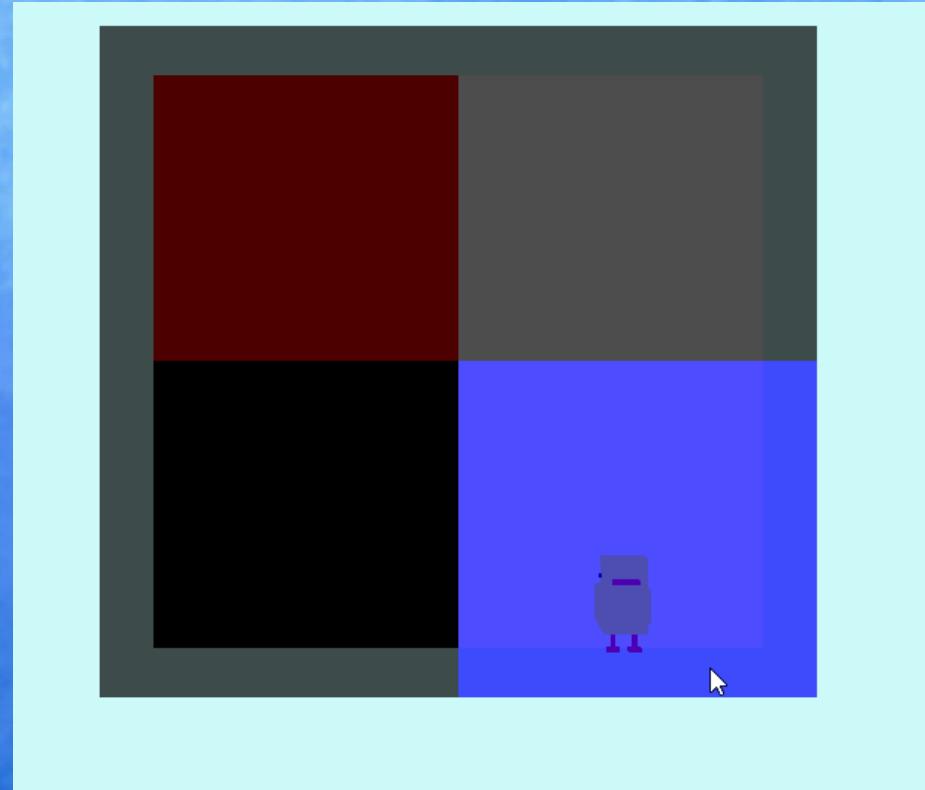


Declare boolean variables – input & wait for release

03

Implementation

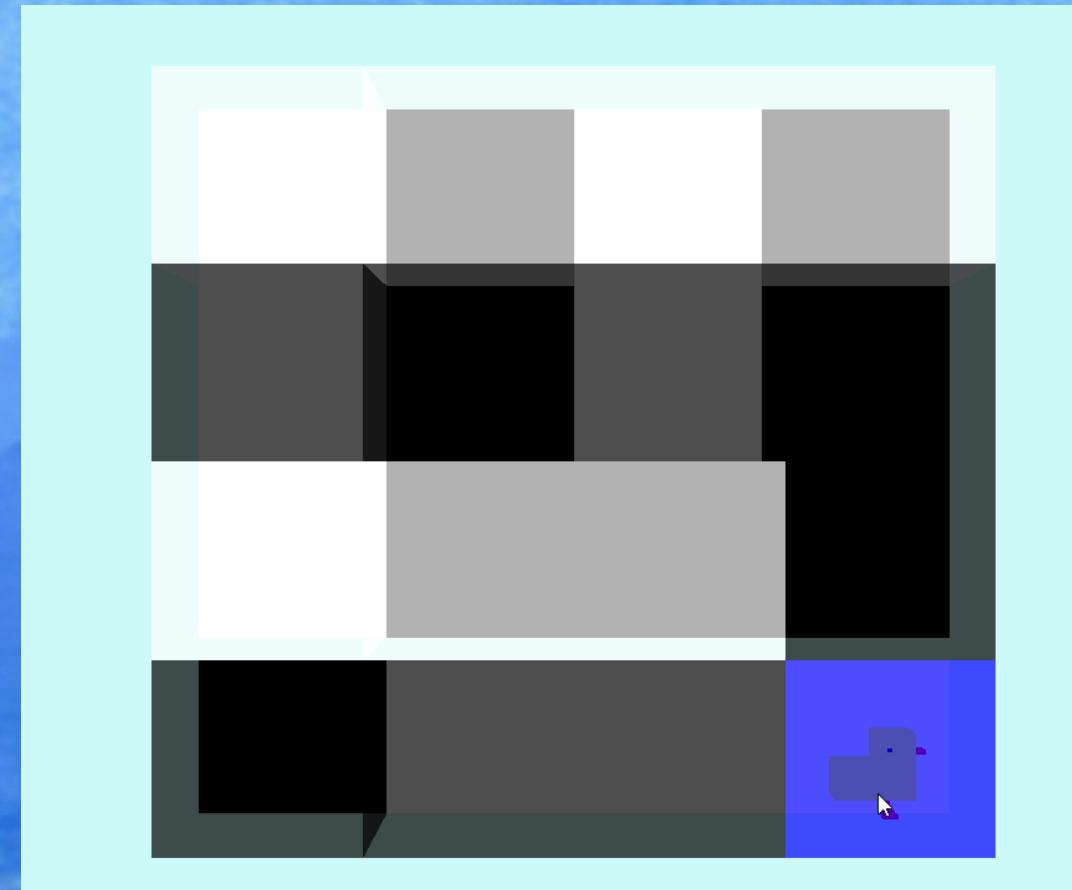
Collision & Gravity



03

Implementation

Moving Map

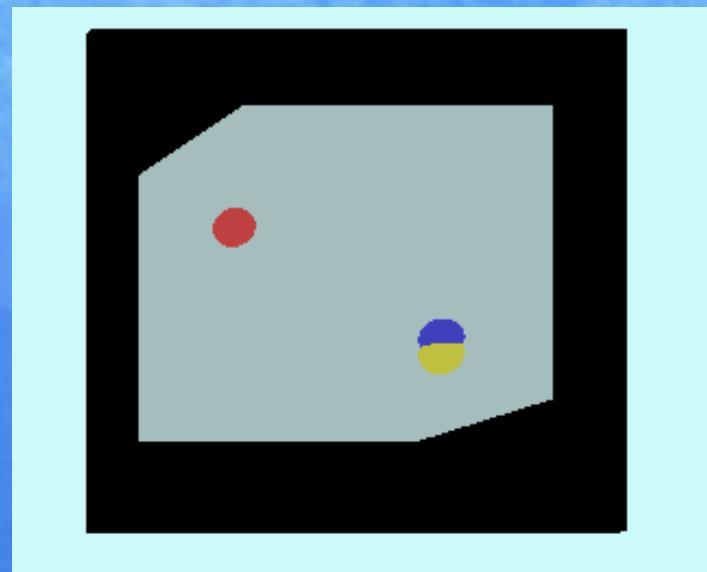


Animation occur every $(\text{animation time}) / (\text{animation count})$
Moves $(\pi/2 \text{ or moving distance}) / (\text{animation count})$ every time

03

Implementation

Mnimap



Map rotation and sphere translating



Thank you

