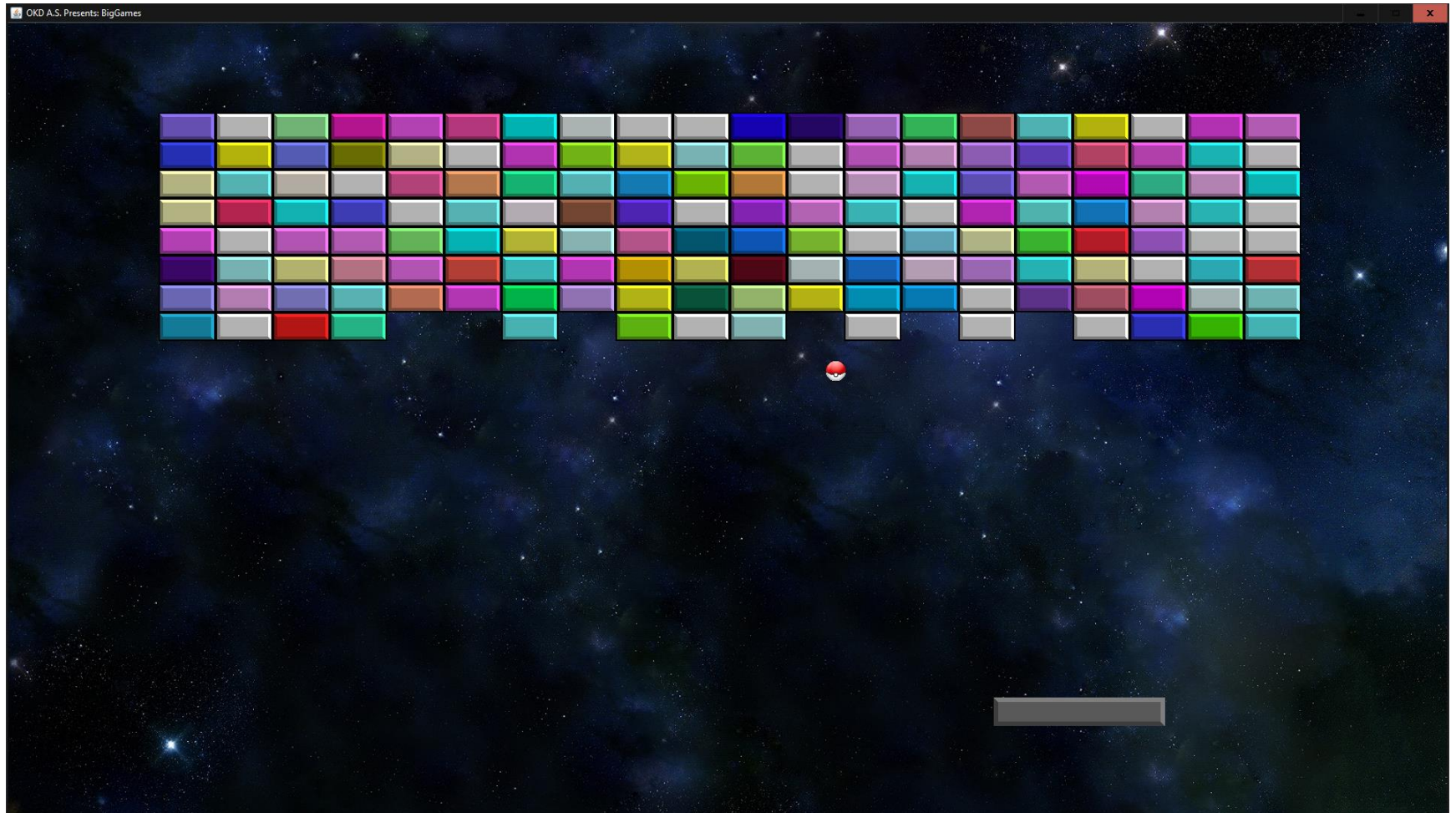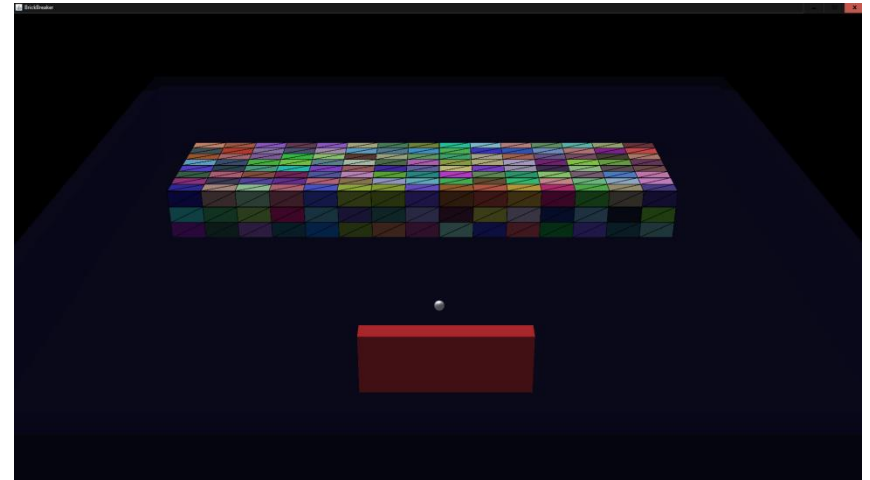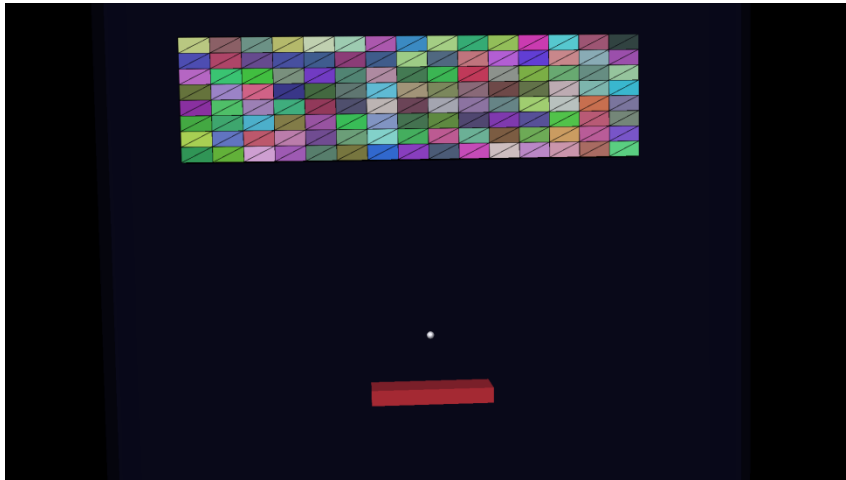Osman Kaan Demiröz

Brick Breaker 3D

Brick Breaker

3D

- Implementation of the game in a 3D Scene

- Addition of the DEPTH element

Depth

JAVA3D

- Object Oriented Design
  - Classes
  - Hierarchy

- Scene Graph Implementation
  - Branch Groups
  - Transform Groups

- Timer functions are used for animation

User Interaction

- Mouse Movement/Clicks
  - Mouse controls the bottom tray
  - Click begins the game

- Key presses control the flow
  - I / i for initializing rotation
  - P / p for pausing the game
  - Q / q for quitting the game

Appearance

- Lights are added as in OpenGL
  - Directional and Ambient (Point) lights

- "Appearance" classes are used for color
  - Material is also defined the same way
  - Ambient, Diffuse and Specular components

Collision Detection

- One of the main key points in the game

- Created a custom class and a custom interface to handle collisions
  - Ball changes direction according to the direction of the collision.
  - Blocks are destroyed on collision

Thank you for listening!