ASSIGNMENT: BREAKOUT CLONE

DEADLINE

Submission is due by 23/03/2025 via KHAS Learn.

OBJECTIVE

Create a Breakout clone. You can check out these games or alternatives on Steam.

- Arkanoid – Eternal Battle
- DX-Ball 2: 20th Anniversary Edition
- Breakout: Recharged

On Apple App Store, Google Play Store, PlayStation Store, Microsoft (XBOX) Store, My Nintendo Store you may find similar games.

In addition, you can search "Breakout Game" on Google.

GAMEPLAY MECHANICS

PLAYER CONTROLS

- Horizontal paddle movement controlled via keyboard or mouse
- To start the game, the player launches the ball

CORE GAMEPLAY

- Ball continuously moves and bounces off paddle, bricks, and walls
- Destroy bricks when collides with ball
- When a brick gets destroyed score must be increased
- When the ball misses the paddle and falls, it respawns on top of the paddle

LEVEL DESIGN

- Create at least five complete levels using brick prefabs
- Arrange bricks in a meaningful and engaging pattern
- Levels can be stored as prefabs or scenes

GAME OVER LOGIC

- Implement lives counter (e.g., 3 lives), it must be seen on screen
- Decrease life when the ball falls off the screen
- Display "Game Over" when the player runs out of lives and prevent player input

SPECIAL BRICK TYPES (MINIMUM 2)

- Implement at least two special bricks
  - Bricks that causing power-up drop won't be considered as special

POWER-UPS (MINIMUM 4)

- Implement at least four power-ups
- Power-ups must cause an advantage or a disadvantage to the player
- Power-ups are objects that must fall from the destroyed brick's position
- Power-ups must be avoidable
- Power-up drop can be done in these ways:
  - A certain block can cause a certain power-up drop
  - A certain block can cause a random power-up drop
  - After each brick destruction, decide if a power-up should drop

BONUS

- Additional visual/audio effects
- Custom backgrounds and paddle, ball, brick textures
- More than eight power-ups
- More than three special brick types
- Prevent ball(s) colliding between right and left walls too many times consecutively. (We saw this bug in class)
- Load next level when all destructible bricks are destroyed
- Be able to restart the game if the game is over

GRADING RUBRIC

CRITERIA	POINTS
GAMEPLAY MECHANICS	10
LEVEL DESIGN	20
GAME OVER LOGIC	20
POWER-UPS + SPECIAL BRICKS	40
PROJECT FILES ORGANIZATION	10
BONUS	25
TOTAL	125/100

SUBMISSION GUIDELINES

- Unity Engine version must be 6000.0.x or higher
- **Ensure your project runs without any compile errors. If not, you won't get any points**
- Submit your Unity project folder as an archive (e.g. ZIP, RAR, 7Z)
- Make sure that your archive contains these folders **only**: *Assets, Packages, ProjectSettings, UserSettings*
- Make sure that your archive **doesn't** contain folders like *Library, Logs, obj, .idea, .git* or files that have **.csproj, *.sln* file extensions.

Good luck and have fun!