## Protect the crystal!

In this simple game you play as a catapult responsible for protecting an important crystal from a horde of warriors. Made for Ubisoft Next 2023-24 by Lucas Berg Dos Santos. Submitted on January  $21^{st}$ , 2024.

# Controls (gamepad)

Movement- The player user the left thumb stick to move the catapult left and right.

Shoot Cannon – Pressing A shoots a cannon ball in a curved trajectory, as expected from a catapult.

Restart Game – In victory or in defeat, the button A restarts the game.

### Classes

CGameObject – Used as base class for a game objects. And replaces CSimpleSprite in the Render() and Update() methods. Most objects in the game are managed in std::vector of CGameObject

CGameManager – Responsible for deleting and finding CGameObject objects. Also does part of "Game Over" and "Victory" cycles.

CCatapult, CCannonBall, CCrystal, CEnemy, CCatapult – They all inherit from CGameObject and were made to achieve the needs of each specific game object they represent.

CEnemyCreator- Creates enemies and manages their collision detection with the cannon balls.

UiManager- Manages all text that is displayed on the screen.

## Art Reference

# Mountain Dusk Parallax background- ansimuz

https://ansimuz.itch.io/mountain-dusk-parallax-background

Sunny Land- ansimuz

https://ansimuz.itch.io/sunny-land-pixel-game-art

Florest Pack 16x16- Angelo Gamedev

https://angelo-nobre.itch.io/pack-florest

Heroes of Might and Magic 2- Units- Catapult

https://www.spriters-resource.com/fullview/29403/

**Explosion Animations Pack- ansimuz** 

https://ansimuz.itch.io/explosion-animations-pack

Pixel Art Assets-Sven

https://sventhole.itch.io/bandits

Free Dark Crystal Shrine- Animated Pixel Art- Frakassets

https://frakassets.itch.io/free-dark-crystal-shrine