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Game Engine 1 Sect 07244

Assignment 1 Block Breaker

Assignment Presented to

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Cave Breaker

USER STORIES

-User Story 1: As a player I want to be able to steer the ball, so I can hit precise blocks.

(In Class)

Completed Tasks

-Make the paddle and ball move appropriately.

-Make the initial game service

-Make the ball bounce

-Trigger block destruction

MVP

4/4

-User Story 2:As a player, I want a gameplay manager, for the game flow and scoring system. (In class)

Completed Tasks

-Create Level fail and completion criteria

-Create multiple levels

-Create scoring system with highscore that saves.

MVP

3/3

-User Story 3: As a player I want a UI, so I can restart a new game and exit the game when game over.

Completed Tasks

-Create a restart button

-Create a retry button

-Create an exit button (Conflicts with a later story so this button is a menu button instead)

-Have these buttons display on death

MVP

4/4

-User Story 4:As a player I want a Powerup, so the game is more interesting to play.

Completed Tasks

-Have powerups spawn upon death of bricks, with a spawn rate of 20%

-Upon collision with the paddle the powerup is absorbed

-The powerup enables a fireball powerup which upon pressing the spacebar button will allow for you to fire a fireball that will destroy or damage a brick upon collision (grey bricks are unaffected and white/metal bricks will be damaged)

-The power has is time limited grants 3 ammo and is lost on death or level load.

MVP

4/4

-User Story 5: As a player I want increasing difficulty, so the game gets more exciting

Completed Tasks

-TimeScale is added on each level 5%

-TimeScale is added on brick collision .5%

-TimeScale cap was created (175%)

-Paddle movement is not affected by timescale

-User Story 6: As a player I want different block, so the game is more interesting to play.

Completed Tasks

-Colored bricks (normal behaviour)

-Metal bricks (upon hit becomes a normal colored brick)

-Grey Brick (ball will bounce off them no score will be added and brick is indestructible)

MVP

3/3

-User Story 7: As a player I want different Powerups (minimum 4), so the game is more interesting to play.

Completed Tasks: (The specifics of how long the powerups last don’t match up with your specifications as I picked values that felt more balanced for the game however these values can be easily changed usually by altering a single variable)

-FireBall powerup is ammo restricted to 3 bullets along with a 10 second timer.

-Floor powerup upon collection a floor appears under the character for 10 seconds

-Big paddle powerup increases the size of the paddle for 10 seconds or until death.

-small paddle powerdown decreases the size of the paddle for 10 seconds or until death.

-Multiball powerup spawns an extra ball, balls are lost upon new level and lives will not be lost unless all balls are destroyed.

MVP

5/8

-User Story 8: As a player I want menus, so the game seems more professional.

Completed Tasks:

-Main Menu with start, options,level select and exit.

-Pause with resume, options and exit to main menu.

-Preloader after the splash screen and menu.

-Pause screen stops the gameplay and cannot be accessed from the deathmenu.

-Deathmenu now has a main menu option instead of a exit.

MVP

5/5

-User Story 9: As an audiophile I want music, audio effect and volume options, so I can enjoy the game more.

Completed Tasks

-Music has been added to the game

-Volume and SFX sliders are in the game.

-Music pauses when game is paused and will resume when resuming the game

MVP

1/4 of tasks complete

Music does not restart upon pause.

Sound fx and music sound good.

-User Story 11:As a ranked gamer I want bonus, so my score gets more impressive when I play well.

Completed Tasks

-Created 2 collectables

-The collectables do not interact with the rest of the level and do not affect the velocity or trajectory of the ball.

-The collectables grant points and a life in the case of the golden egg.

-Collectables are destroyed on level load.

-Collectables are fully optional

MVP

Permanent collectables

Bonuses are visually consistent

-User Story 12: As a ranked gamer I want an advanced leaderboard, so I can show off all my hi-score.

Completed Tasks: (I did this one not really looking at the specifications beforehand all I thought was needed was a leaderboard so its not exactly implemented in the way you asked, but is fully functional)

-leaderboard will save the top 10 scores to player prefs and display them with the associated initials of the player.

-If the user achieves a score in the top 10 they will be asked to input their initials to save their score.

-This screen will only display if upon death you achieve a score in the top 10.

-The leaderboard is accessible from the main menu.

MVP

The menu is not overcrowded.

The leaderboard is fully functional.

-User Story 13:As a professional I want my application to look official, so the game looks legit

Completed Tasks:

-A very legit looking splash screen.

-An icon for the exe

-User Story 14: As an artist I want themes in different levels, so the game look always evolving.

Completed Tasks:

-BackGround Theme

-Animation on ball death

-Added new Sprites

-Background layer based movement with player movement.

-various game objects have animation.

MVP

5 Tasks have been done

The theme is visually consistent.

-Custom User Story 1: As a player I want to be able to replay specific levels whenever I want

Completed Tasks:

-Designed a level select screen to allow the player to choose a level.

-Custom User Story 2: As a player I would like to adjust the speed of my paddle.

Completed Tasks

-Added a mouse sensitivity slider in the options menu which will adjust how fast the paddle moves in response to mouse movement.

Custom User Story 3: As a player I would like an antagonist in the game

Completed tasks

-Added a boss for the final level that fires projectiles to hurt the player and provides a large point boost upon defeat.

-Custom User story 3: As a ranked gamer I want to feel accomplished with my high score.

Completed tasks

-Upon beating the last level the game will loop back around to level 1 however this time the timescale cap will be increased allowing the game to get harder and for highscores to really be an accomplishment.

References

Explosion Texture Sheet

License public domain

author Cuzco

<https://opengameart.org/content/explosion>

Egg Sprite

License Attribution-ShareAlike 4.0 International (CC BY-SA 4.0)

Author Deliriumy

<https://opengameart.org/content/egg-0>

Bone

Author unknown

license is commercial free

https://www.pngguru.com/free-transparent-background-png-clipart-nddmr

slight alterations made by Zachary Bolduc-Adolph

TextBox and Breakout Set

Author Buch

https://opengameart.org/content/breakout-set

Cave BackGround

Author Pwl

<https://opengameart.org/content/seamless-cave-in-parts>

Chicken leg sprite

Author Santoniche

<https://opengameart.org/content/chicken-0>

Poop Icon Made by swifticons

From https://www.flaticon.com/free-icon/poop\_215264

Komiku Intensive puzzle resolution Song

by Komiku

Licence Public domain

https://freemusicarchive.org/genre/Chiptune?sort=track\_date\_published&d=1&page=5

gang of alley cats Song

by Komiku

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Battle of the Pogs

by Komiku

Licence Public domain

https://freemusicarchive.org/music/Komiku/Captain\_Glouglous\_Incredible\_Week\_Soundtrack/pog

Bug band loop

by Visager

Attribution-ShareAlike 4.0 International (CC BY-SA 4.0)

https://freemusicarchive.org/music/Visager/Songs\_from\_an\_Unmade\_Forest\_World/Bug\_Band\_Loop

PowerUp Sprites

By Marc-Andre Larouche

Modified by Zachary Bolduc-Adolph

Goofd Duck

Author: megupets

www.megupets.com

https://opengameart.org/content/goofd-ducc

Free Wall TileSet

By IGL Space

<https://assetstore.unity.com/packages/2d/environments/free-wall-tile-set-130514>

PriceDown Font

Licence free commercial use.

SFX were done by myself.

Coding References

Scripting help from unity answers page and unity documentation

FindandDestroyProjectiles method was a modified version of a method provided by the user salmjak on the unity answers page

GAME MANUAL

Game Goal: The goal of the game is simple destroy all the blocks in a level to advance to the next.

Controls:

Mouse movement: will control the paddle.

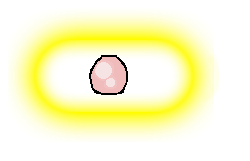
A: will move the paddle to the left.

D: will move the paddle to the right.

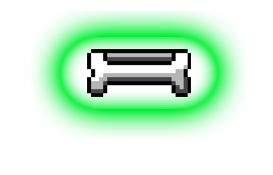
Space: will launch the ball and shoot fireballs if you have ammo.

Esc: will pause and unpause the game.

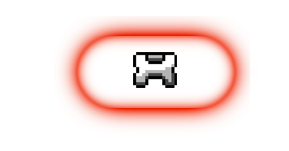
PowerUps: Upon contact with the paddle will grant special effects.



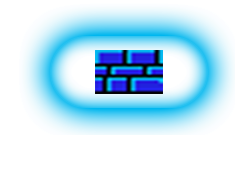
MultiBall: Will create an extra ball.



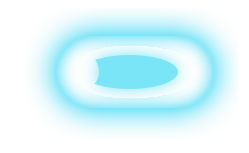
Big Bone: Will increase the size of the paddle for 10 seconds.



Small Bone: Will decrease the size of the paddle for 10 seconds.



Floor Drop: Will create a floor under the player protecting the ball from death.



Fireball Drop: Will allow the player to fire up to 3 fireballs to destroy bricks within 10 seconds

Collectables: Upon contact with the ball will grant points.



Golden Egg: will grant 10000 points and an extra life.



Turkey Leg: will grant 5000 points.



Poop: The poop will take away 1 life if it hits the paddle.

Blocks: Will take damage when hit by a fireball or ball.



Basic Colored Block: Takes 1 hit to destroy, grants 1000 points when destroyed.

 Metal Block: After 1 hit will become a colored block, grants 1000 points when hit.

 Rock Block: Indestructible.

BOSS:



GOOFD DUCK: Upon defeat will grant 50000 points but watch out for his smelly poo as it is ridden with disease.