Foots, Jonathan
Final Report
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Scripts

- Player UI
    - Health script – manages player damage, death, and HP
        - Modified by me
    - BreathTrigger – manages player breath
        - Created by me
    - GetGameTime – manages game timer
        - Created by me
    - SharpenText – manages text scaling/sharpness for readability
        - Modified by me
    - SliderText – updates text for slider value
        - Created by me
    - sumScoreScript – manages scoreboard and score
        - Reworked by me
    - MenuController_Paused – manages pause UI
        - Modified by me
    - audioButtonManager – manages Click/Hover for pause menu
        - Created by me
    - ButtonController_Paused – manages pause UI buttons
        - Modified by me
- Player
    - vThirdPersonController – manages player movement
        - Modified by me
    - vThirdPersonInput – manages player camera
        - Modified by me
- Trap
    - DamageCollision – damage on contact
        - Created by me
    - TrapManager – distributes traps and chest over map randomly based on bias
        - Created by me
- Chest
    - chestCollision – open chest on contact
        - Created by me
- Game Over
    - GameConditions – manages win/lose scenario
        - Created by me
- Start Menu
    - MainMenuNew – manages start menu elements
        - Modified by me
    - MainMenuOptions – controls options panel elements and buttons
        - Modified by me

Game Mechanics

Start screen allows user to play a new game, choose a map, or exit. Options panel will display a return button and a list of maps that show the name of the map, difficulty star-rating, and trap-type bias. Player can select a map to play from the list of maps using one of the select buttons. Pressing play will load a new game after a brief loading screen. Pressing exit will exit the game after confirming yes.

Player mechanics include basic movement (WASD-Space) and sprint (left shift). Player has HP (Health) and Breath which is tracked by a UI display. Sprinting consumes breath and taking damage from traps consumes HP. Traps deal 22,33, or 50 damage per physical hit depending on type and 1 damage per particle hit per 0.1 sec. Sprinting consumes 3 breath every 5 seconds while moving. In order to win, the player must touch the chest somewhere in the dungeon without running out of HP, Breath, or time.

Player has 5 mins to find the chest, and the player's score will be calculated based on time remaining. Player's score is tracked by a UI display. Upon death or win, the player will see their score, high score, and scoreboard. From there, the player can return to start screen.

The dungeon is full of traps which deal damage on contact. Traps include fire traps that emit particles from the ceiling; spike traps that shoot spikes from the ground; axe traps that swing like a pendulum from the ceiling; and hammer traps that swing across the floor. The number of traps per map is randomly chosen from an acceptable range for the difficulty. The difficulties will range from 1-star, 3-star, and 5-star. The minimum and maximum number of traps for a 1-star map is 8-15. For a 3-star map, the range is 10-30. For a 5-star map, the range is 12-45. Traps are randomly added to the map favoring the trap bias up to the randomized maximum number of traps.

At any time, the player may pause the game, and an in-game menu will allow the player to resume or return to start screen.

Extra Features
- Treasure chest has open animation when touched.
- Traps randomly added up to maximum number instead of randomly removed from being manually placed.

Unfinished Features
- Trap unique to floor/ceiling tile because I couldn't get it working in time so reverted to last version.
- Unable to find appropriate player character to match dungeon theme so went with what was free to use even if it didn't match.

Discontinued Features
- Oxygen decreasing over time, instead went with timer system.
- Checkpoints and resets were never implemented because map was too short for checkpoints.
- 3 traps end game, instead traps do damage based on trap type and won't necessarily kill player after 3 hits.
- Cutter traps and saw traps were removed due to difficulties randomly placing them.