

Period: 7

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Group: The Zidanni Group

Project title: Manic Dodger

Project Description: A “Bullet Hell” game where a user controlled character can move across the X and Y axis to surgically evade intricate projectile patterns casted by a boss enemy. The user can launch their own projectiles at the enemy in order to bring their health to 0. The boss enemy will go through several phases each with a different attack pattern until they are defeated, revealing a victory screen.

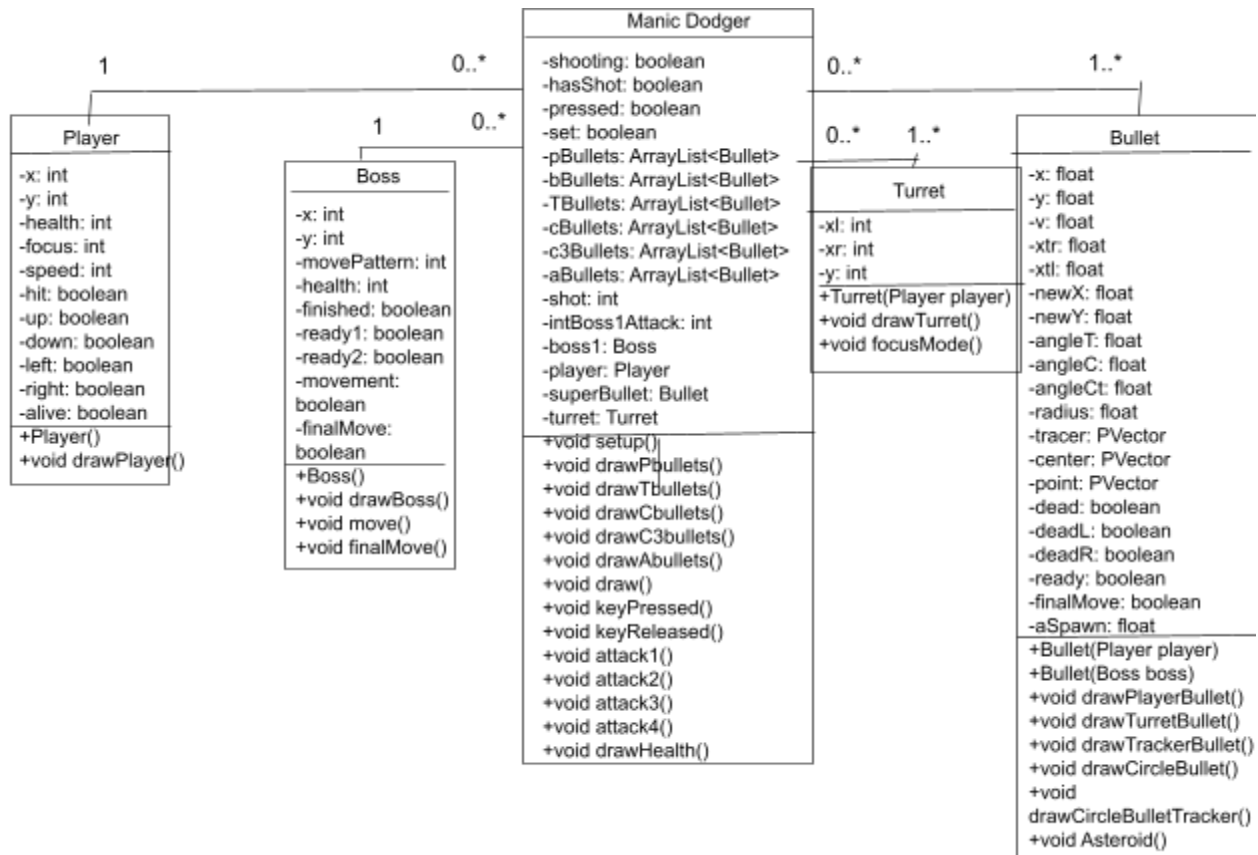
List of Functionalities:

- Player character able to move across X and Y axis. Diagonal movement is accounted for.
- Player character able to slow down when SHIFT key is pressed.
- Player character able to spawn projectiles when the ALT key is held.
- Player character given health and terminates when health is 0.
- Projectiles maintain constant velocity up when spawned.
- Projectile terminates once offscreen.
- Projectile sprite design (yin yang balls and pink ovals).
- Enemy health and damage (30000 health points).
- Enemy movement (6 unique movement patterns)
- Enemy projectile patterns (4 unique projectile patterns)
- Turret movement (drags behind player)
- Turret projectile spawn
- Turret focus mode (moves in front of player, focusing shots into a thinner line)
- Player character sprite design (wizard cat)
- Boss sprite design (cucumber)
- Background art (space)
- Turret sprite design (blue orbs)
- Enemy health indicator (boss hit points displayed on top left corner)
- Phase switching (once boss health hits a certain threshold, the movement pattern and projectile patterns will change.)
- Player reset (player's position reverts to the bottom of the screen once a life is lost.)
- Start screen (displays controls player needs to know to play)
- Victory Screen (Tells you that you have won the game and prompts a restart)
- Game Over screen (Tells you that the game is over and prompts a restart)

What I would like to add:

- More bosses
- An enemy health bar rather than an a numerical indicator

- Refining the player hitbox so that it matches with the hitbox image of the sprite.
- A score meter depending on how fast you defeat a boss.
- An upgrade system that lets players increase the shot output of the character.
- Updated boss sprites that change when they are hit.
- A visual effect to a phase change to clearly indicate to the player that they are changing attack patterns.



How does it work?:

Once the player runs the program, they are greeted by a start screen showing the controls for the bullet shooter (ALT to shoot, arrow keys to move, SHIFT to slow down and focus your bullets). The goal of the player is to bring the health of the boss to zero by shooting it with projectiles while avoiding the projectiles the boss is shooting. Once you get hit three times or bring the boss' health to 0, you will be prompted to restart the game by pressing CTRL.