CARROT CRUSADER

Version: 1.0.0

GDD Written by:
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1. Overview

1.1 Pitch

Carrot Crusader is a chaotic 2D action arcade shooter where you play as a carrot and not just any carrot, but a helmet-wearing, bow-wielding warrior with one goal: **survive the rabbit apocalypse**.

1.2 Genre

Action, Survivorlike, Arcade, Shooter.

1.3 Theme

Cute and chaos.

1.4 Target Platform & Audience

Windows (PC), Casual gamers.

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2. Game Mechanics

2.1 Core Loop

1. Player spawns in
2. Waves of enemies appear
3. Player defeats enemies to gain points
4. Player collects health packs to survive longer
5. Loop continues until player dies

2.2 Gameplay Systems

1. **Enemies**
   The enemies are visually styled as aggressive bunnies. They constantly move toward the player and attack on contact. Each individual enemy deals low damage, but getting swarmed by multiple enemies can rapidly deplete the player’s health. The number of enemies increases over time, creating escalating difficulty as the game progresses.

2. **Weapons**
   The player uses a bow to fight off enemies. Aiming is done with the mouse and the player shoots by clicking the left mouse button. There is no reload or power-up system implemented in the current version, keeping the combat fast-paced and simple.

3. **Health Systems**
   The player begins each run with full health. Health is reduced when the player comes into contact with enemies. To recover, the player can collect health packs that spawn near them every 30 seconds. Each health pack restores 25% of the player's maximum health.

4. **Score Systems**
   Players earn 100 points for each enemy defeated. A score multiplier system increases with each enemy kill, scaling from ×1 to a maximum of ×5. For example, if the player is at a ×3 multiplier, each kill grants 300 points. However, taking damage resets the multiplier back to ×1. At the end of the run, the player’s final score is added to the high score list displayed in the main menu.

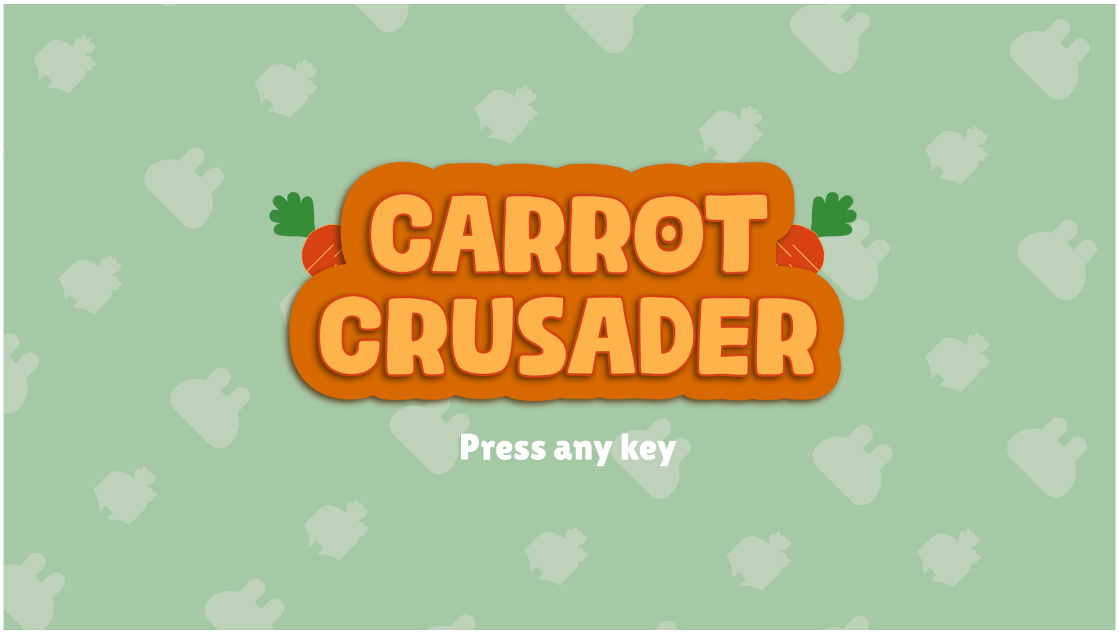
2.3 Controls

Walk up	W
Walk down	S
Walk right	D
Walk left	A
Pause	Escape
Shoot	Left Click

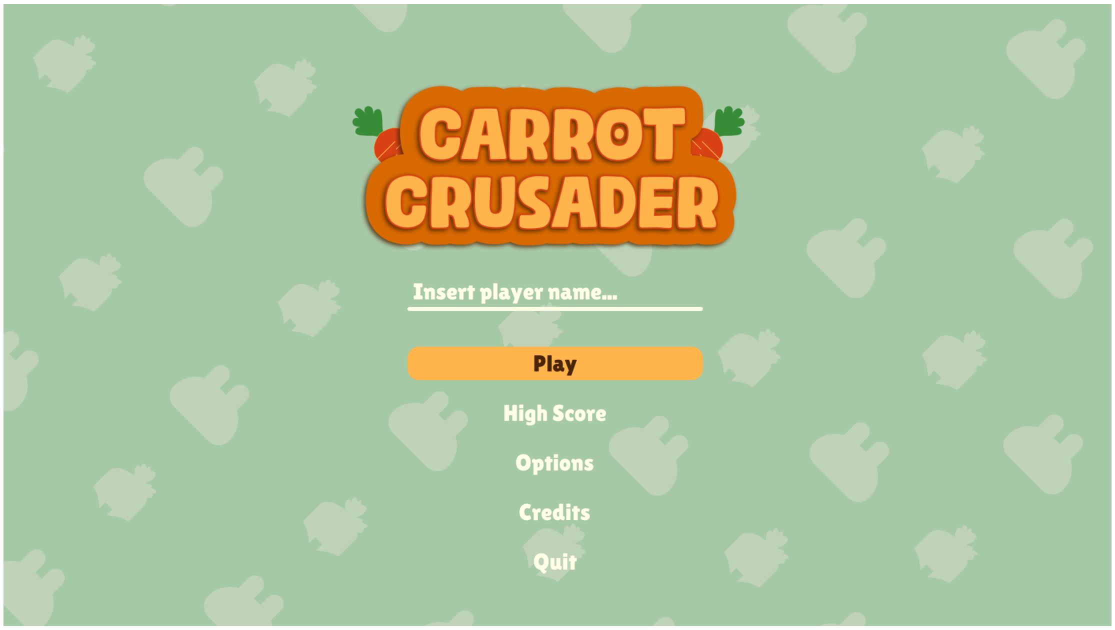
3. Game Layout

3.1 UI Design

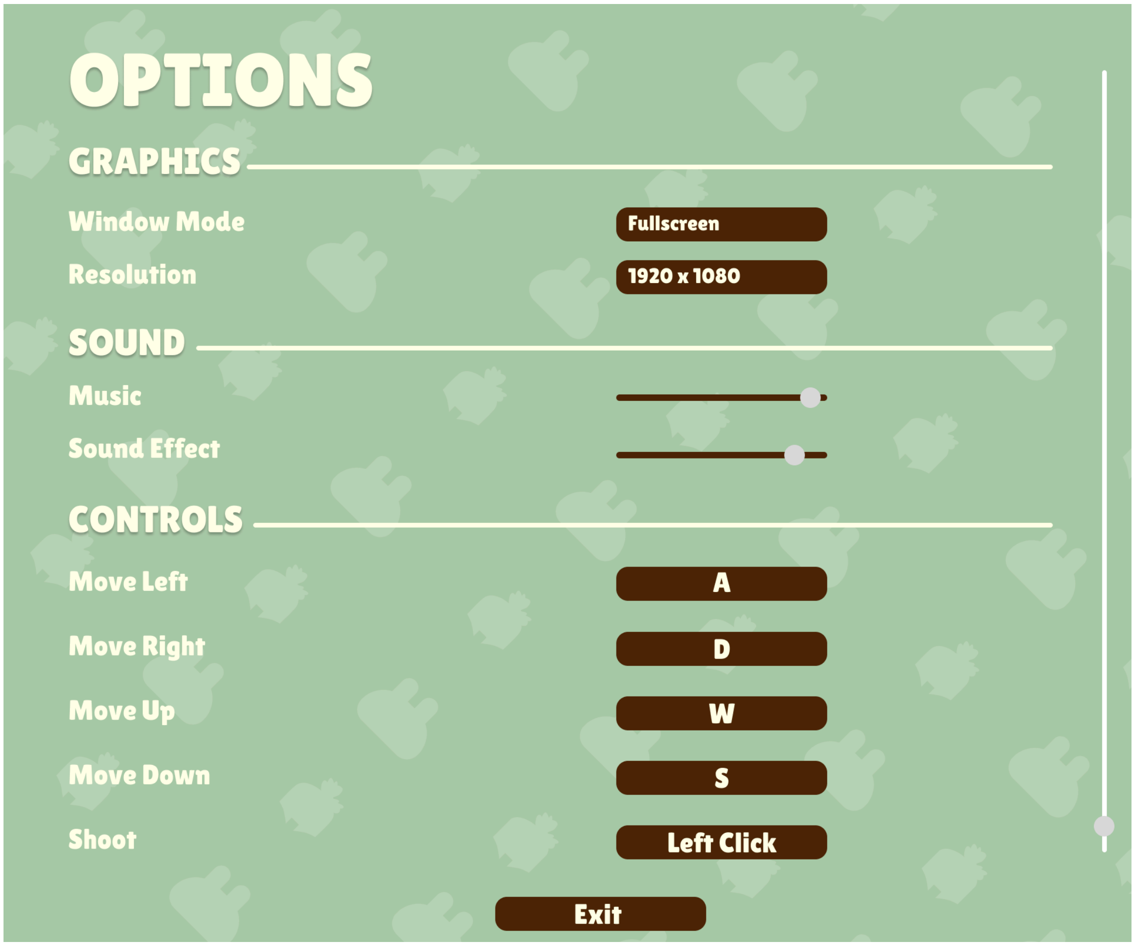
1. **Titlescreen**



2. **Main Menu**



3. **Options Menu**



Window Mode Fullscreen

Resolution 1920 x 1080

Music

Sound Effect

Move Left A

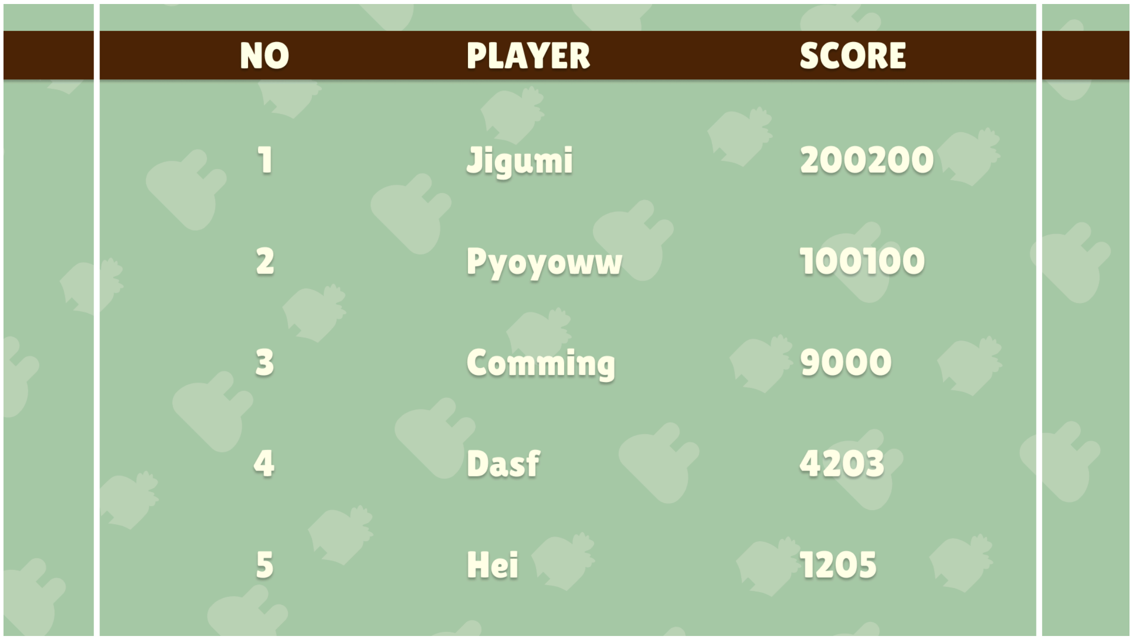
Move Right D

Move Up W

Move Down S

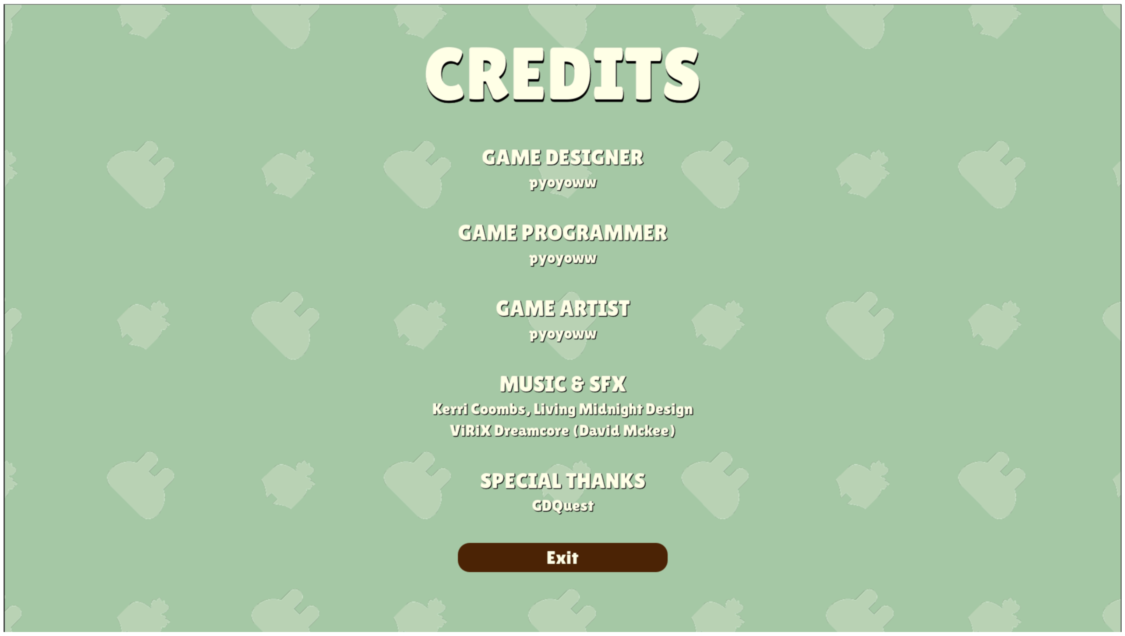
Shoot Left Click

4. **Highscore Menu**



NO	PLAYER	SCORE
1	Jigumi	200200
2	Pyoyoww	100100
3	Comming	9000
4	Dasf	4203
5	Hei	1205

5. **Credits Menu**



CREDITS

GAME DESIGNER
pyoyoww

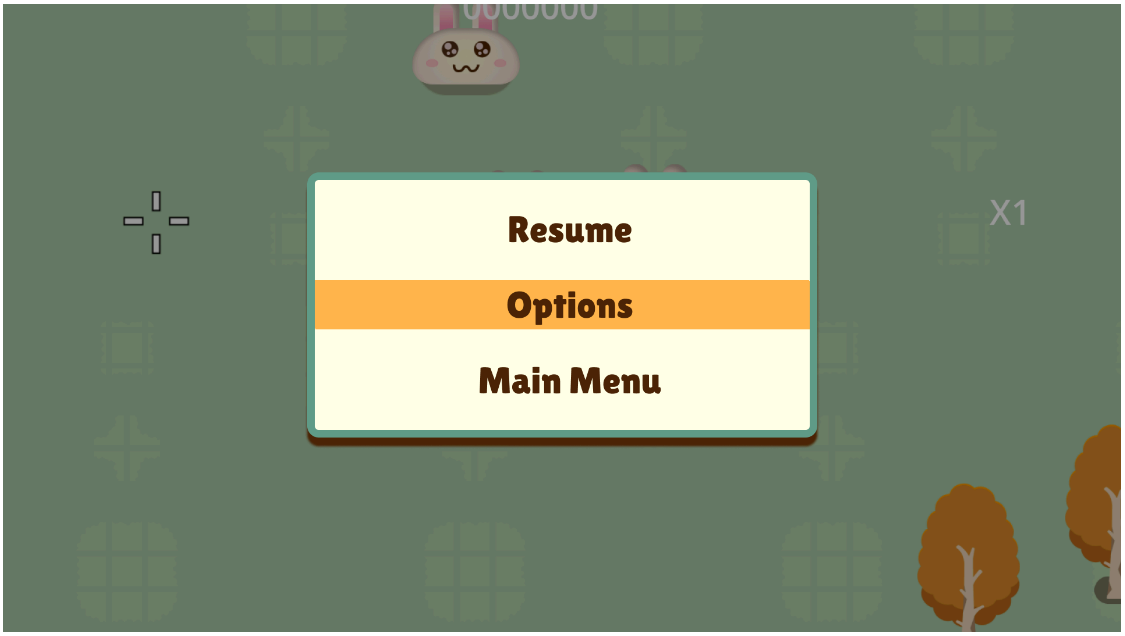
GAME PROGRAMMER
pyoyoww

GAME ARTIST
pyoyoww

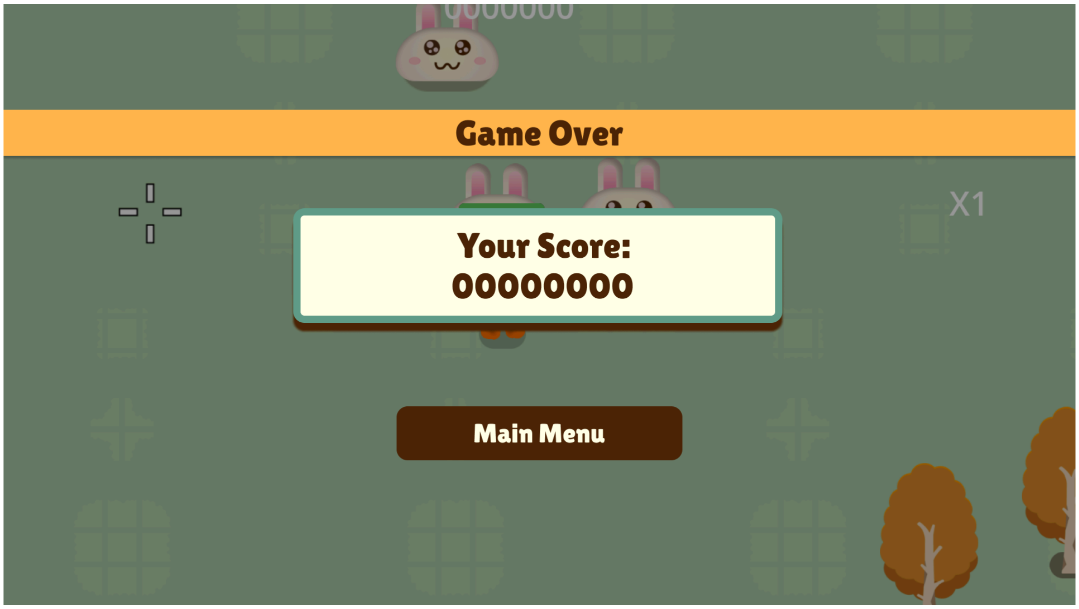
MUSIC & SFX
Kerri Coombs, Living Midnight Design
ViRiX Dreamcore (David Mckee)

SPECIAL THANKS
GDQuest

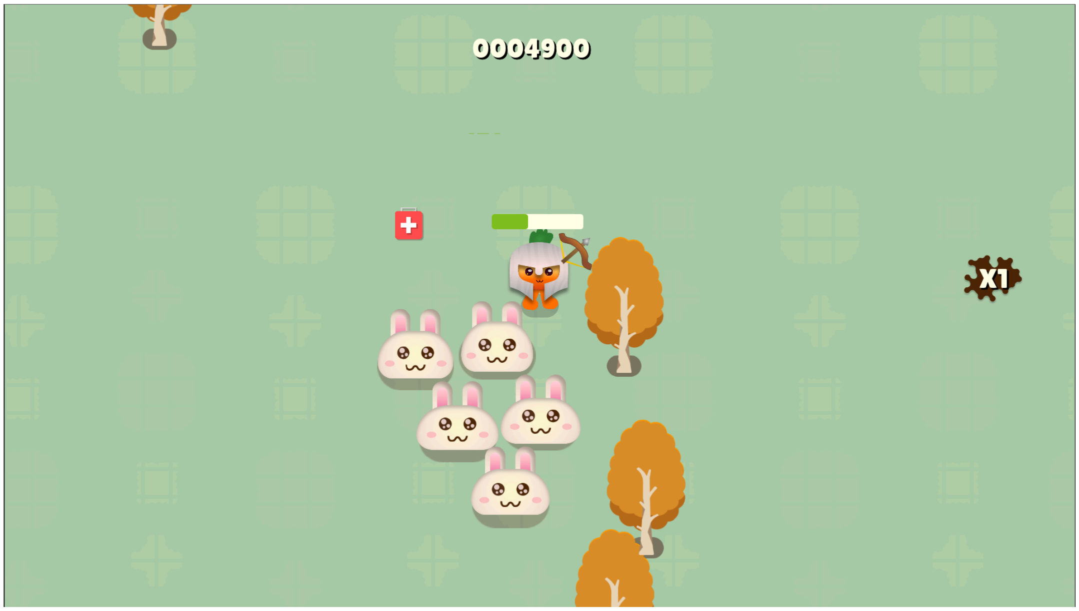
6. **Pause Menu**



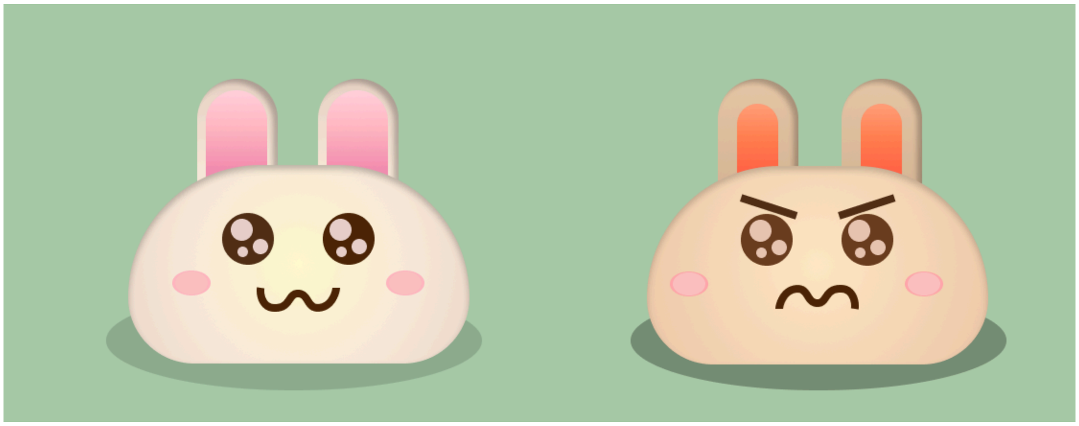
7. **Gameover**



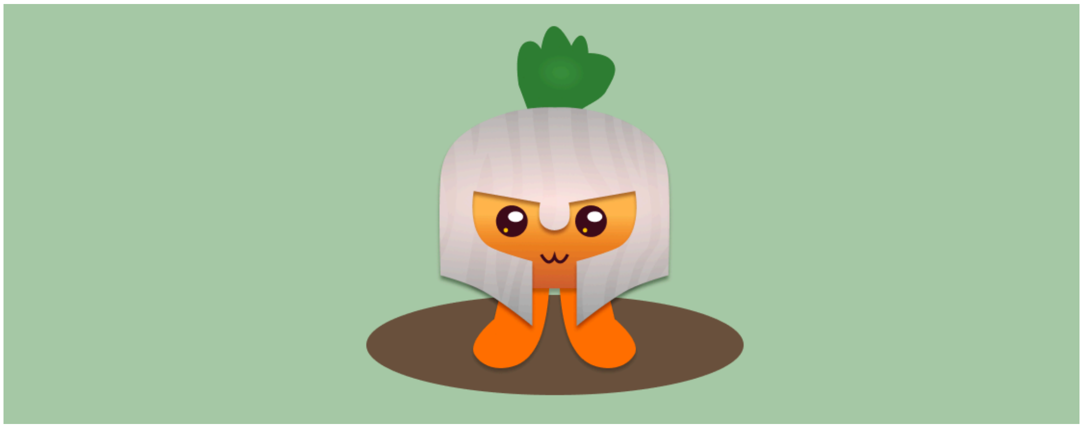
8. Gameplay



9. Mobs



10. Carrotknight



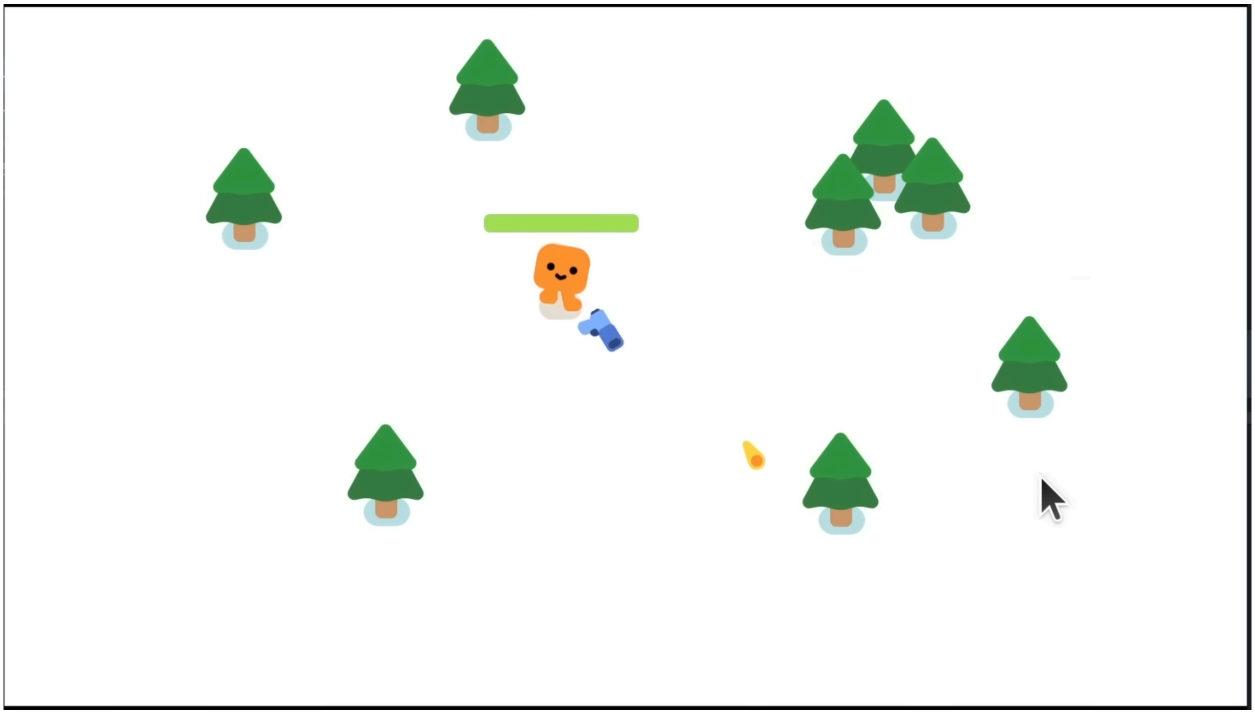
4. Development Notes

4.1 Inspiration

Carrot Crusader was originally inspired by a YouTube tutorial on building a basic survivor-style game. After completing the tutorial, the codebase was completely reworked, new enemies and features were added, and original mechanics introduced.

Special thanks to **GDQuest** for the foundational learning experience.

Here is a snippet of the original game that inspired and teach me on how to complete this development:



4.2 Improvements beyond the original

While the tutorial provided the foundational mechanics, the game has since evolved significantly through custom features and enhancements. The following improvements were implemented beyond the scope of the original tutorial:

1. **Original character and enemy designs**
   Replaced default assets with custom carrot-themed player and enemy characters.

2. **Custom enemy behaviors and difficulty scaling**
   Added behavior logic for enemies to swarm the player and scale in spawn rate over time.

3. **Health system with health packs**
   Implemented a health system where the player can recover using timed health pack spawns.

4. **Score and multiplier system**
   Created a dynamic scoring mechanic with kill-based multipliers that reset on damage.

5. **Improved UI and feedback effects**
   Added a red-screen damage flash and a health bar UI for player clarity.

6. **Cleaned up and modularized code**
   Refactored code architecture for scalability, readability, and future feature additions.

7. **High score saving system**
   Built a persistent high score system shown in the main menu.

8. **New game flow and polish**
   Designed smoother transitions between game states (start → play → game over → restart).

5. References

5.1 Visual & Gameplay References

1. **Brotato**
   Brotato - Full Game Walkthrough Long Play
2. **Vampire Survivors**
   Vampire Survivors | Full Game Walkthrough | No Commentary
3. **GDQuest**
   Your First 2D GAME From Zero in Godot 4 **Vampire Survivor Style**