Capture The Flag - The Manual

The goal of this game is to capture the flag and return it to your base while at the same time preventing your enemies from doing the same.

How to play:

In order to play the game you first need to download python (version 3). After downloading python you need to navigate to games directory and run the following commands in a python interpretor of your choice:

"source setup.sh" Then either "python3 ctf.py --singleplayer" or "python3 ctf.py --hot-multiplayer" depending on if you want to play on your own or with somebody else.

You can also start the game with a map of your choice by running the same command along with "--map map_name.json"

Features:

- **Respawn protection:** When respawning, there is a short duration of which you cannot be hit by other tanks.
- **Scoreboard:** Everytime a player captures the flag, a scoreboard is shown in the terminal displaying the amount of wins every player has.
- **Immersive sounds:** The game contains different sound effects for various events along with a background track.
- **Visible explosions:** When a bullet collides, a visible explosion effect is shown.
- **Map selector (.json files):** When starting the game, you can choose which map to play.
- **Buffed AI:** The AI has an slight increase in both speed and bullet speed.
- **Recoil:** When shooting, the tank has recoil and gets pushed back.
- **Optional Multiplayer:** As stated earlier, the user has the option to start the game with one operational tank, or two.

Controls:

Player 1/Single player: Blue controls:
Arrow keys for steering and P to shoot.
Player 2: Red controls:
WSAD for steering and space to shoot.

Code files

- **ctf.py:** The main file for the game that uses all of the components listed below.

- **gameobjects.py:** Contains most of the different classes used in the game such as the tank, gameobject, bullet and explosion class.

- **ai.py:** Contains all the functions for the ai in the game and the ai class that is utalized in the main ctf.py file

- **maps.py:** Contains all the maps along with the map class.

- **images.py:** Contains all the functions for the images in the game

- **sounds.py:** Contains all the functions for the sounds in the game

The data folder in the game contains the pictures and sounds that are used in the game.