

## Summary

## Instructions

1. Cd into the src directory
2. Compile the project: Make
3. Run the game server in one terminal: `game/game.exe`
4. Open the GUI in another terminal: `java -jar gui/gui_client.jar`
5. Click on the "Connect" button in the GUI.
6. Open a terminal and run a bot, which will be the red bot: `team/babybot.exe`
7. Open a terminal and run a bot, which will be the blue bot: `team/babybot.exe`

## Design and Implementation

- Modules:
- Architecture:
- Code Design:
- Implementation:

## Testing

## Extensibility

- New bullet types:

In our `Bullet.spawn` we use the defined attributes of a bullet type (speed and radius) to determine its behavior. In order to create new bullet types, we would have to account for the new bullet type's attributes in our definitions and constants and then add new a section in our match statement in `Bullet.spawn` that creates a bullet with the behavior that we want.

- New types of collectible items:

We have a function `Powerup.spawn` that we use to create powerups that both players can receive and a function `Powerup.playerEvent` which determines the effect the item has on a player. To create new collectible item types, we would create a match statement like we did for `Bullet.spawn` that checks the type of the collectible being spawned in `Powerup.spawn` to determine the behavior and in `Powerup.playerEvent` to determine the effects.

- More interesting bomb effects:

- Neutral enemies that fire at both players:

Since we have a function `Npc.spawn` that creates npcs with a type of behavior (which defines what they do on a time tick), we can modify our `Npc.spawn` like we did `Bullet.spawn` so that we can take different `Npc` types and then create `Npcs` with different types of behavior using a match statement.

## Known Problems

## Comments