

# **Manual Testing for a Random Shooter Game - Week 3**

**Prerequisites:** You need Python 3 to run this code. Also, you need a valid connection string for an Atlas MongoDB database cluster.

**Environment setup and configurations:** Clone this repository from github (or download it however you want). Then run

```
pip install -r requirements.txt
```

At the base directory, create a .env file and add the following line:

```
ATLAS_KEY=YOUR ATLAS CONNECTION STRING HERE
```

Replace YOUR ATLAS CONNECTION STRING HERE with your atlas connection string, but with the database name replaced with %s. For example:

```
mongodb+srv://game:YOUR_PASSWORD_HERE@YOUR_CLUSTER_NAME_HERE.jmwxw.mongodb.net/%s?retryWrites=true&w=majority
```

To start the program, use

```
python src
```

## **Operations**

To do manual testing, check the following things in order after starting the program (starting next page)

## Main Menu

When the game starts, you should see a main menu that looks like this:



Press one of the HIGH SCORES buttons. You should now be at a Leaderboard screen.

## Viewing the Leaderboards

The leaderboard screen should look like this:



The top 5 fastest times should be listed.

If there are not yet enough recorded victories to populate the leaderboard, empty entries with “---” as the time should be displayed:

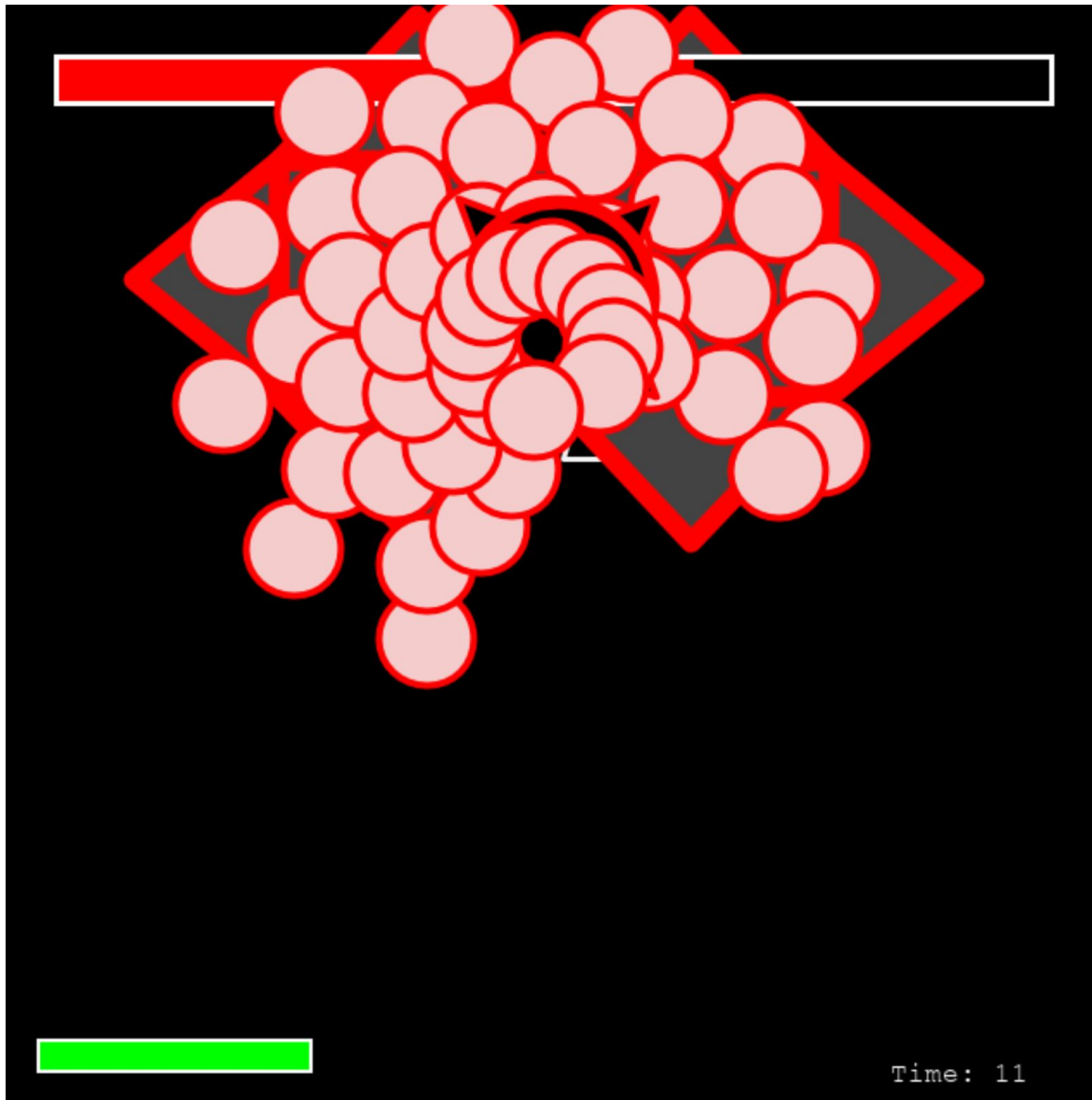


Click on the MAIN MENU button. This should take you back to the main menu.

## Trivial Difficulty

Now go back to the main menu. Click on the PLAY GAME button under TRIVIAL, and begin the game.

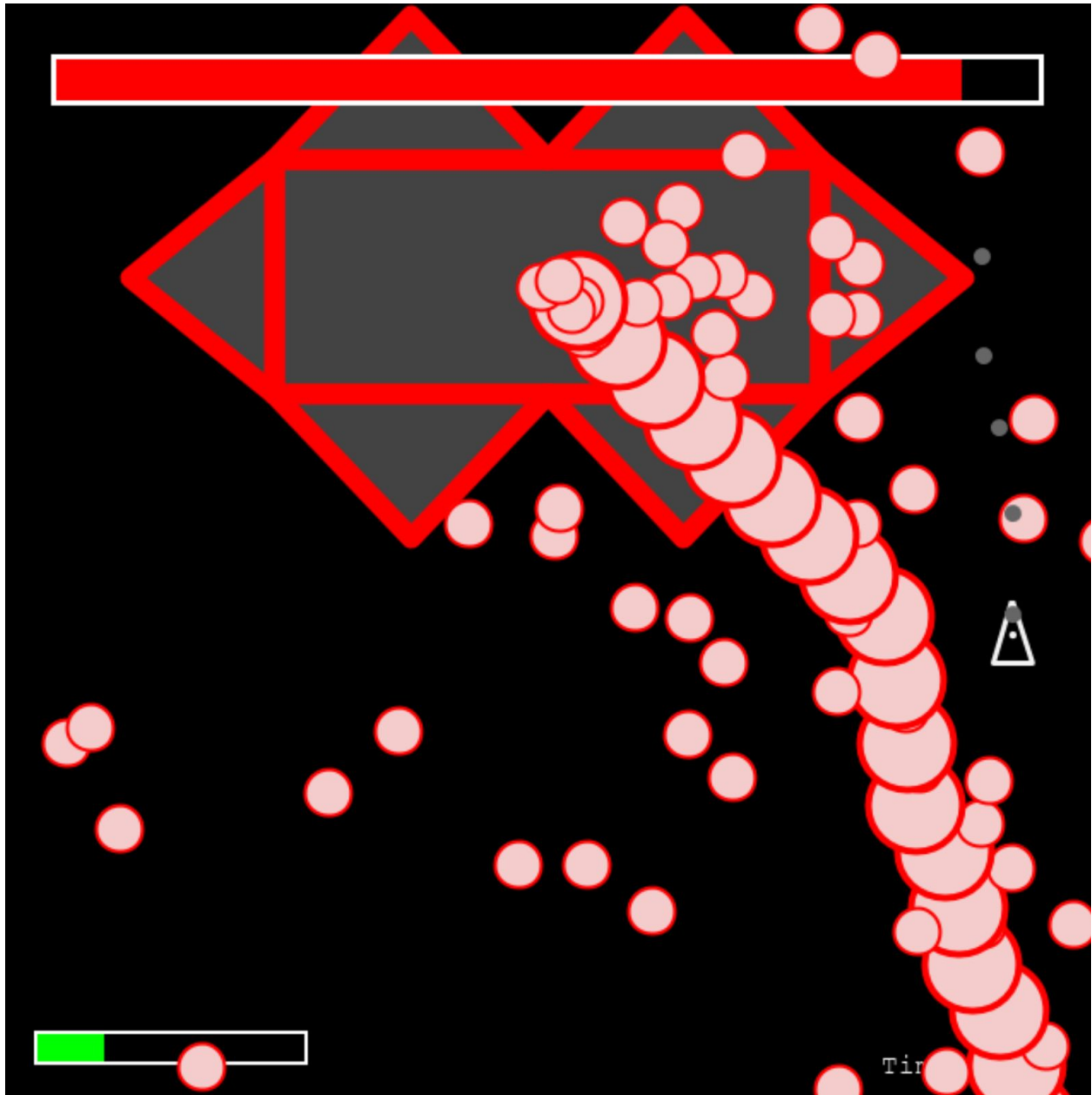
In trivial difficulty, collisions cannot hurt the player. The only way to die is to press X. Check this by ramming into everything:



Yes, you can do that in Trivial difficulty and not die. Now press X to check that you can still die that way, and then close the game and go back to the main menu.

## Normal Difficulty

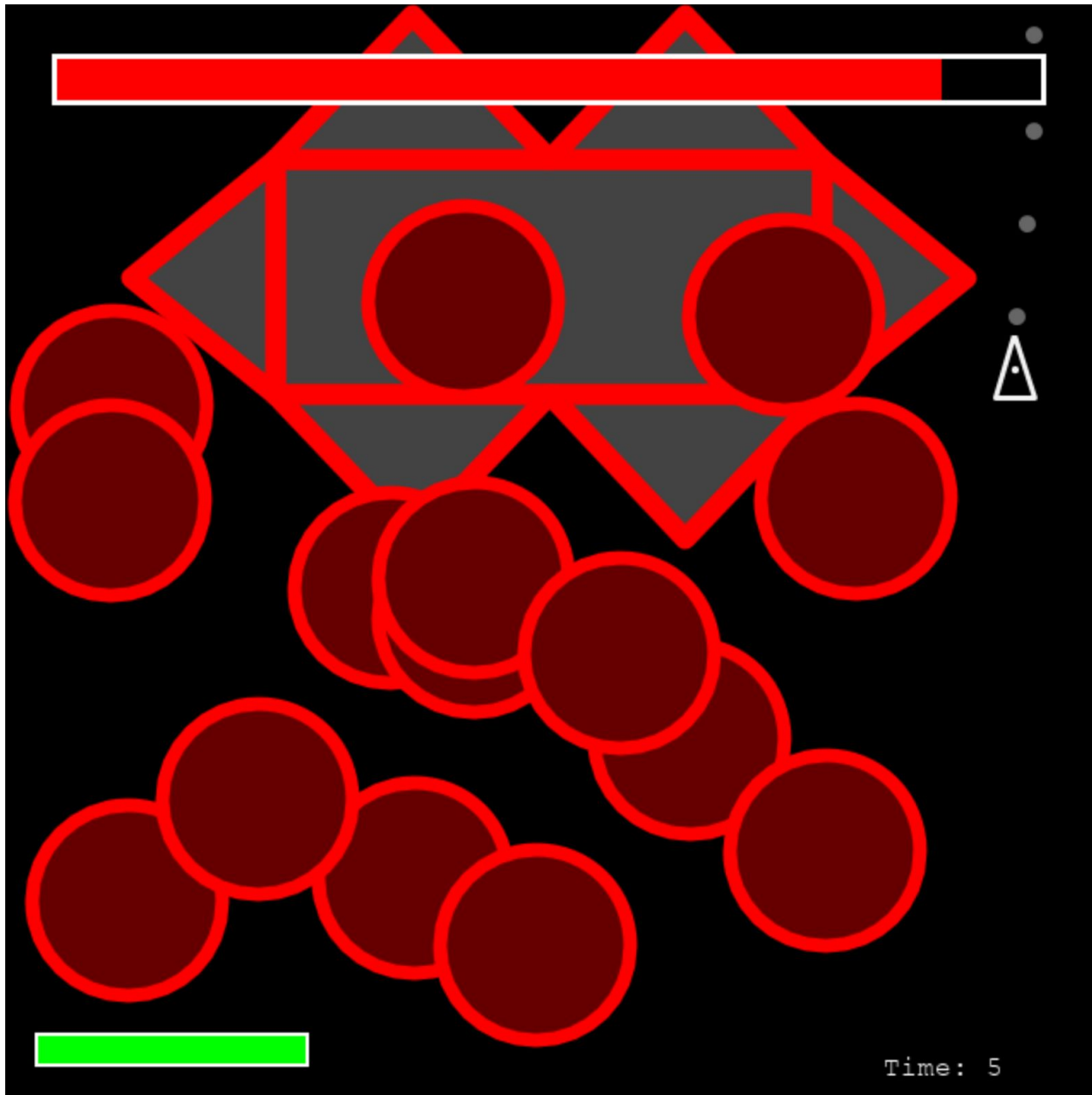
In normal difficulty, getting hit by an enemy bullet or the enemy itself should result in a decrease in health. Death should occur if the player's health bar is completely depleted. Check this by ramming into some single bullets, and briefly colliding with the enemy:



Then exit the game and reopen it again, back to the main menu.

## Hard Difficulty

In hard difficulty, any collision involving the player should kill the player.



Check this by starting a hard difficulty game, and running into a bullet. You should die regardless of the type of bullet. Also, try colliding with the enemy. This should also result in instant death. After each test, close and reopen the game.

## Game End Screen

The Game End screen should include either 'YOU WIN' or 'YOU LOSE' at the top, depending on how you game went. It should also include the time (in seconds) your game took. Finally, there should be a CONTINUE button at the bottom of the screen. When clicked, the continue button should do the following:

- If the player won, and the time taken is low enough to get on the leaderboard for the chosen difficulty, the CONTINUE button should transition to the Name Input screen
- Otherwise, it should transition back to the main menu.



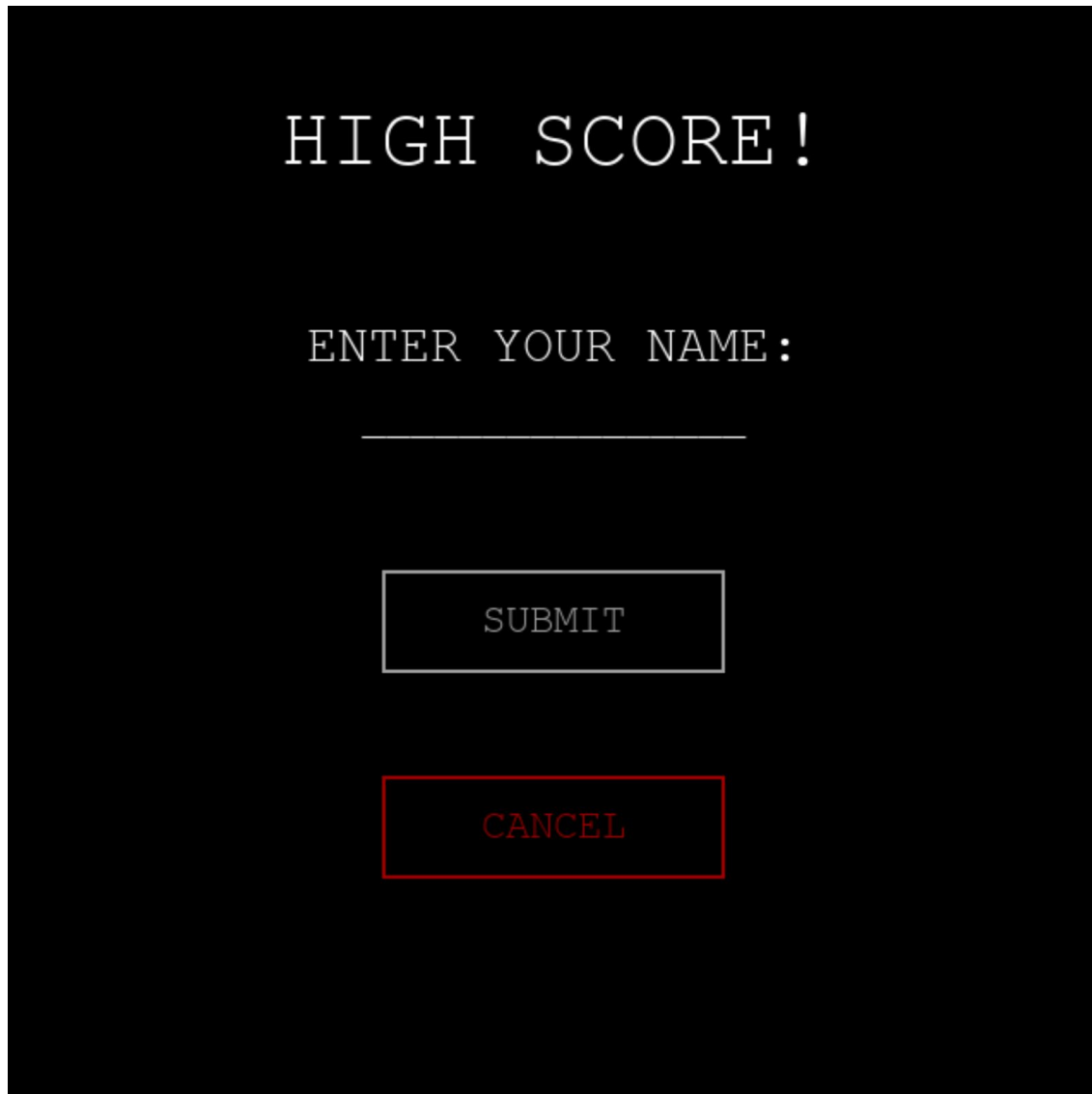
Test this by first losing a game in any difficulty, then pressing CONTINUE. You should end up back at the main menu.

Then, win a game very quickly (you can do this by instantly killing the enemy using the Y key). When you press CONTINUE now, assuming there aren't too many other split-second wins on the leaderboard, you should end up at the Name Input screen.



## Name Input Screen

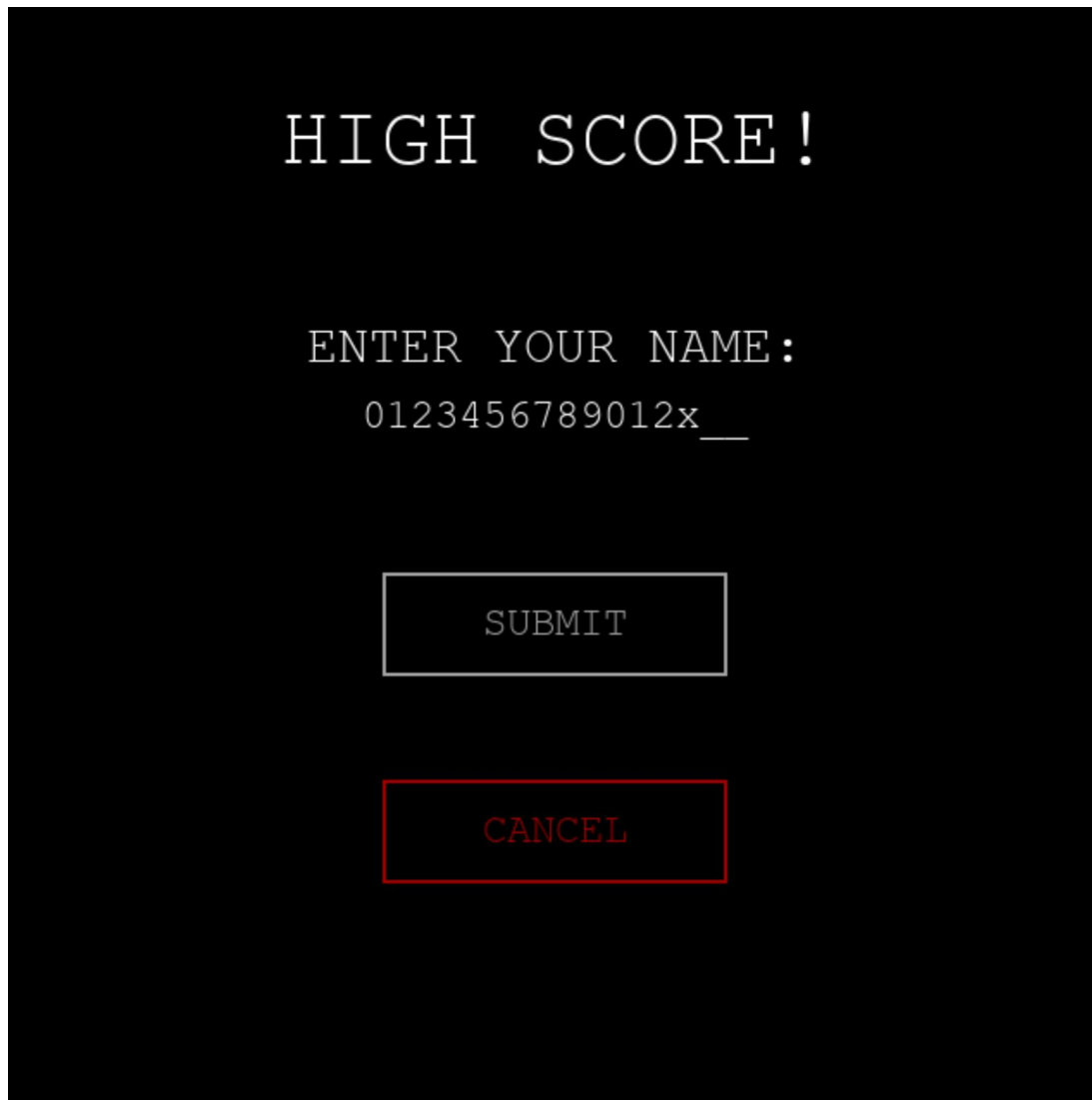
The name input screen should look like this:

A screenshot of a game's high score screen. The background is black. At the top, the text "HIGH SCORE!" is displayed in a white, serif font. Below this, the text "ENTER YOUR NAME:" is also in white, serif font. Underneath the text is a horizontal line of underscores, currently empty. Below the line are two rectangular buttons. The top button has a white border and the text "SUBMIT" in white, serif font. The bottom button has a red border and the text "CANCEL" in red, serif font.

If you press any alphanumeric key on your keyboard, the line of underscores should update to add the character you pressed. However, if there are no underscores left, it should do nothing. You should also be able to delete characters using the Backspace key. To test this, enter the following key sequence in order on your keyboard:

0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 Backspace Backspace Backspace X

The screen should now look like this:



HIGH SCORE!

ENTER YOUR NAME:

0123456789012x\_\_

SUBMIT

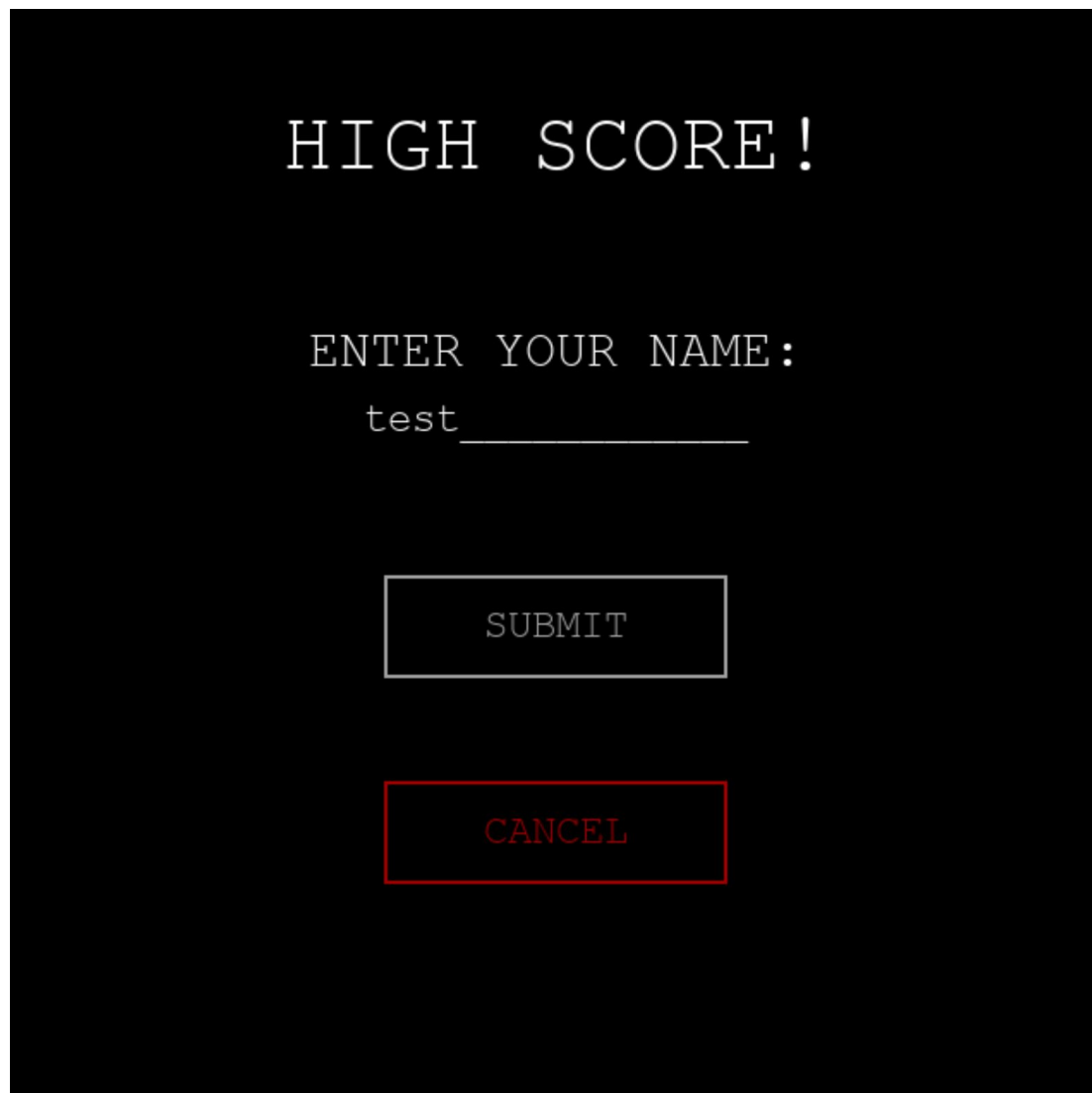
CANCEL

Now press CANCEL. This should take you back to the main menu, discarding your high score.

Go back to the leaderboard screen and ensure that the information has not changed:



Now go win a game fast enough in Trivial difficulty to get on the leaderboard again. Get to the Name Input screen, and enter “test” as your name.



HIGH SCORE!

ENTER YOUR NAME :

test\_\_\_\_\_

SUBMIT

CANCEL

Press SUBMIT. You should now be redirected to the Leaderboard screen.

## Updated Leaderboard Screen

After what you did above, you should see your name and time on the leaderboard screen:



This means the leaderboard is updating correctly.