



Implementing ship placement in Battleship game

Untitled (Workspace)

- The `count_ships_left` function counts the number of ships left on the board.
- The final scoreboard prints the winner, their average turn time, and the number of ships they had left. If it's a tie, it prints the average turn time and ships left for both players.



 ZacharyCornthwaite

will this main function wait to say who won until all the ships are sunk?

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The provided `main` function does not yet include the complete game loop logic to ensure that the game waits until all ships are sunk before declaring a winner. To achieve this, you need to implement a game loop that continues until one player's ships are all sunk.

Here is the complete code with the necessary game loop logic to ensure the game waits until all ships are sunk before declaring a winner.

```
import time
import random
import matplotlib.pyplot as plt
import numpy as np

def update_status(player_1_board, player_2_board, player_1_score, player_2_score):
    """
    It will update the status of the game after each player's turn.
    """
    print("Player 1's Board:")
    print_board(player_1_board)
    print("Player 2's Board:")
    print_board(player_2_board)
    print(f"Player 1's Score: {player_1_score}")
    print(f"Player 2's Score: {player_2_score}")
```

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Search

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```
def main():
    print("Welcome to Battleship!")
    input("Press Enter to start the game.")

    player_1 = input("Enter a username (default player 1): ")
    if player_1 == "":
        player_1 = "player_1"
    player_2 = input("Enter a username (default player 2): ")
    if player_2 == "":
        player_2 = "player_2"

    chooser = random.choice(player_1, player_2)
    print(f"({chooser}) goes first to choose heads or tails.")
    choice = input(f"({chooser}), do you want to be Heads or Tails? ").title()
    while choice != "heads" and choice != "tails":
        choice = input("Invalid choice. Please enter Heads or Tails: ").title()
    coin_flip = random.choice(["heads", "tails"])
    print(f"The coin landed on {coin_flip}")

    player_1_board = [[0] * 10 for _ in range(10)]
    player_2_board = [[0] * 10 for _ in range(10)]

    place_ships(player_1_board, player_1)
    place_ships(player_2_board, player_2)

    player_1_score = calculate_score(player_1_board)
    player_2_score = calculate_score(player_2_board)

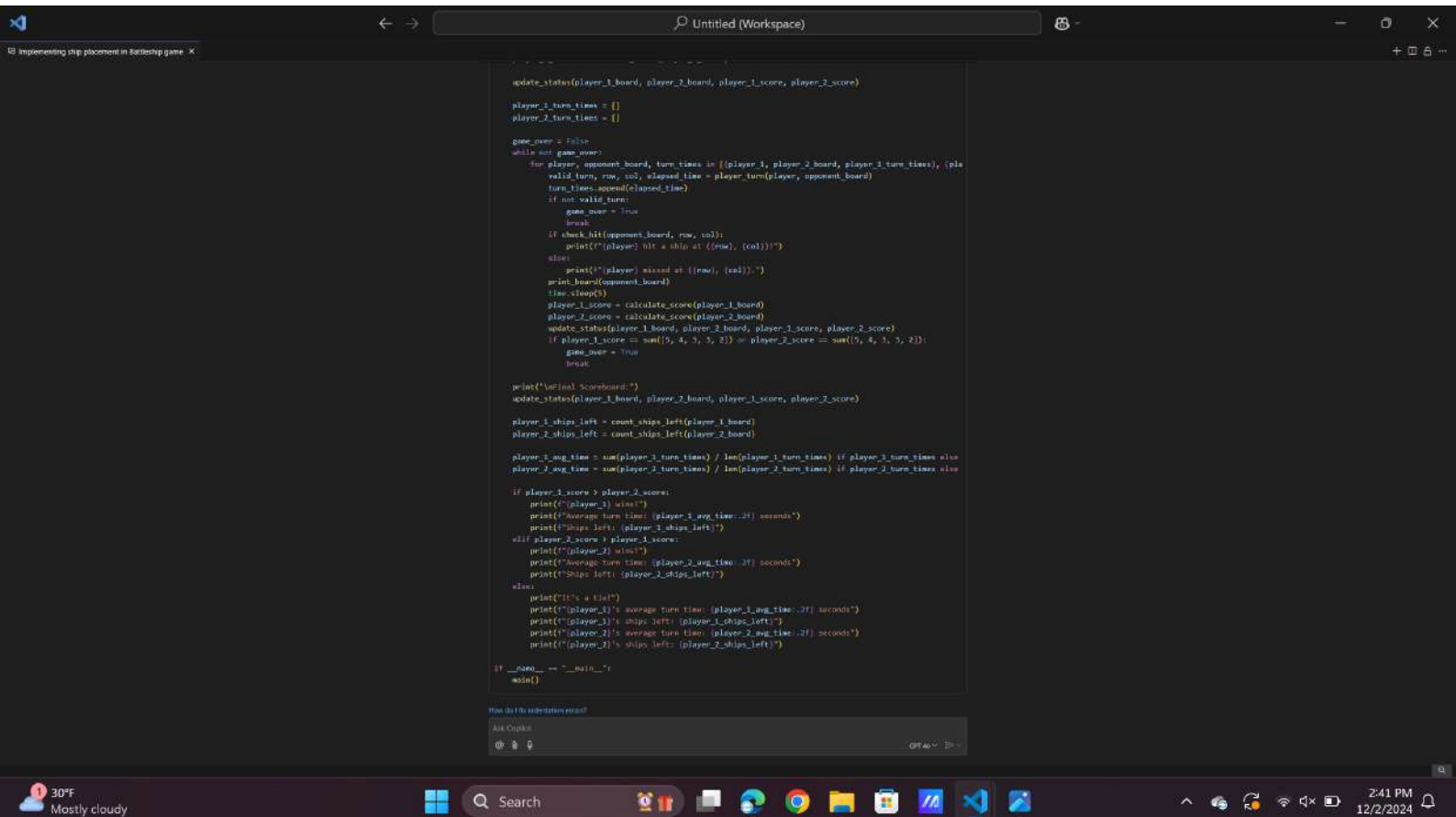
    update_status(player_1_board, player_2_board, player_1_score, player_2_score)

    player_1_turn_times = []
    player_2_turn_times = []

    game_over = False
    while not game_over:
        for player, opponent_board, turn_times in [(player_1, player_2_board, player_1_turn_times), (player_2, player_1_board, player_2_turn_times)]:
            valid_turn, row, col, elapsed_time = player_turn(player, opponent_board)
            turn_times.append(elapsed_time)
            if not valid_turn:
                game_over = True
                break
            if check_hit(opponent_board, row, col):
                print(f"({player}) hit a ship at ({row}, {col})!")
            else:
                print(f"({player}) missed at ({row}, {col}).")
            print_board(opponent_board)
            time.sleep(5)
            player_1_score = calculate_score(player_1_board)
            player_2_score = calculate_score(player_2_board)
            update_status(player_1_board, player_2_board, player_1_score, player_2_score)
            if player_1_score == sum([5, 4, 3, 2]) or player_2_score == sum([5, 4, 3, 2]):
                game_over = True
                break
```

How do I fix indentation error?

Ask ChatGPT






Implementing a 15-second turn timer for players X

← → Untitled (Workspace) 8 -

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in this example, the `player_turn` function simulates a player's turn and checks if the turn time exceeds 15 seconds. You can replace the `time.sleep(2)` line with the actual game logic for each player's turn.

 **ZacharyCombswaite**

create the timer to be on its own function instead of apart of the players turn

[nan.py12-01](#)




 **GitHub Copilot**

[Dad 1 reference](#)

To create a timer function that can be used independently of the player's turn, you can define a separate function for the timer and then call this function within the player's turn function. Here's how you can do it:

1. Define a `start_timer` function that handles the timing logic.
2. Modify the `player_turn` function to use the `start_timer` function.

Here's the updated code:

```
import time
import random


def start_timer(duration):
    start_time = time.time()
    end_time = start_time + duration
    while time.time() < end_time:
        remaining_time = end_time - time.time()
        print(f"Time left: {remaining_time:.2f} seconds", end='\n')
        time.sleep(1)
    print("\nTime's up!")



def player_turn(player_name):
    print(f"{player_name}'s turn. You have 15 seconds.")

    # Start the 15-second timer
    start_timer(15)


    # Simulate player's turn (replace this with actual game logic)
    turn_time = random.uniform(1, 15) # Simulate a random turn time for demonstration purposes
    print(f"{player_name} completed the turn in {turn_time:.2f} seconds")


    return turn_time
```


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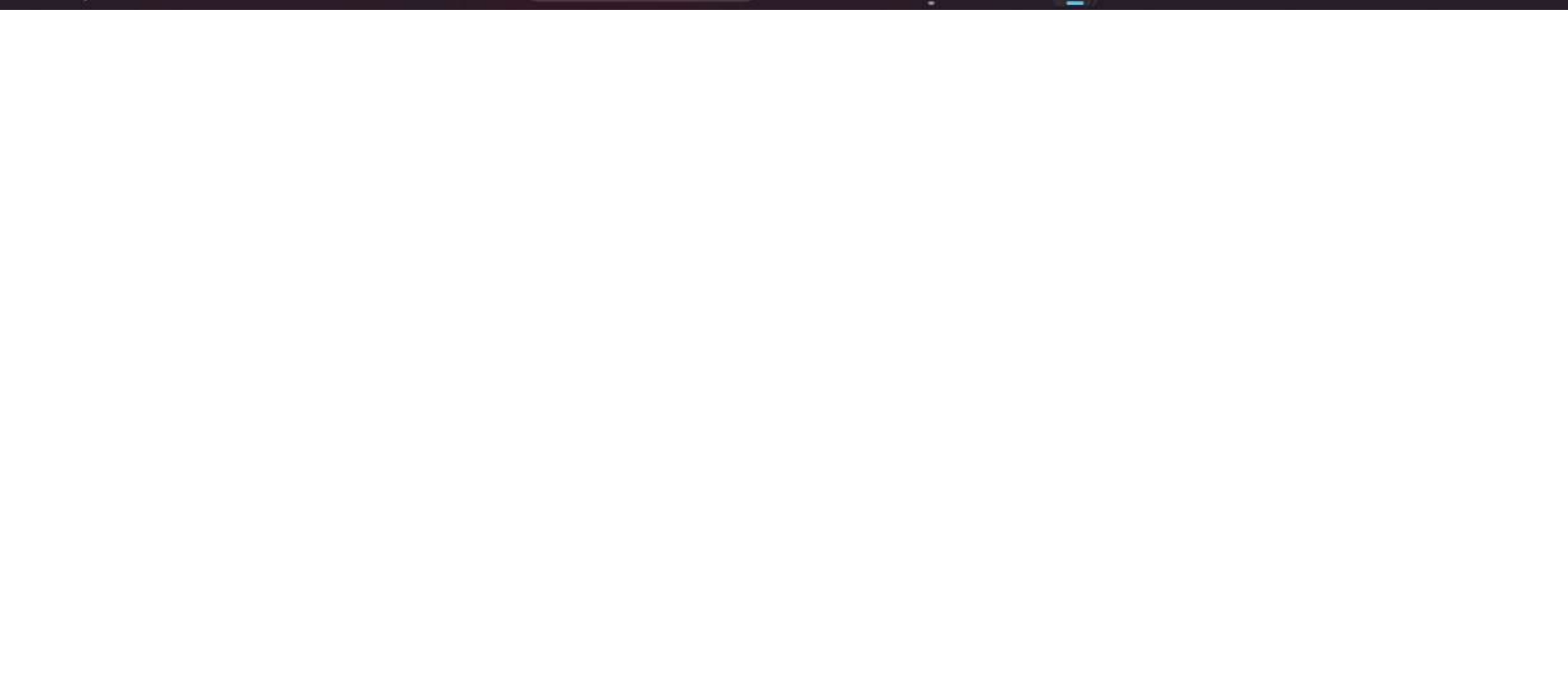
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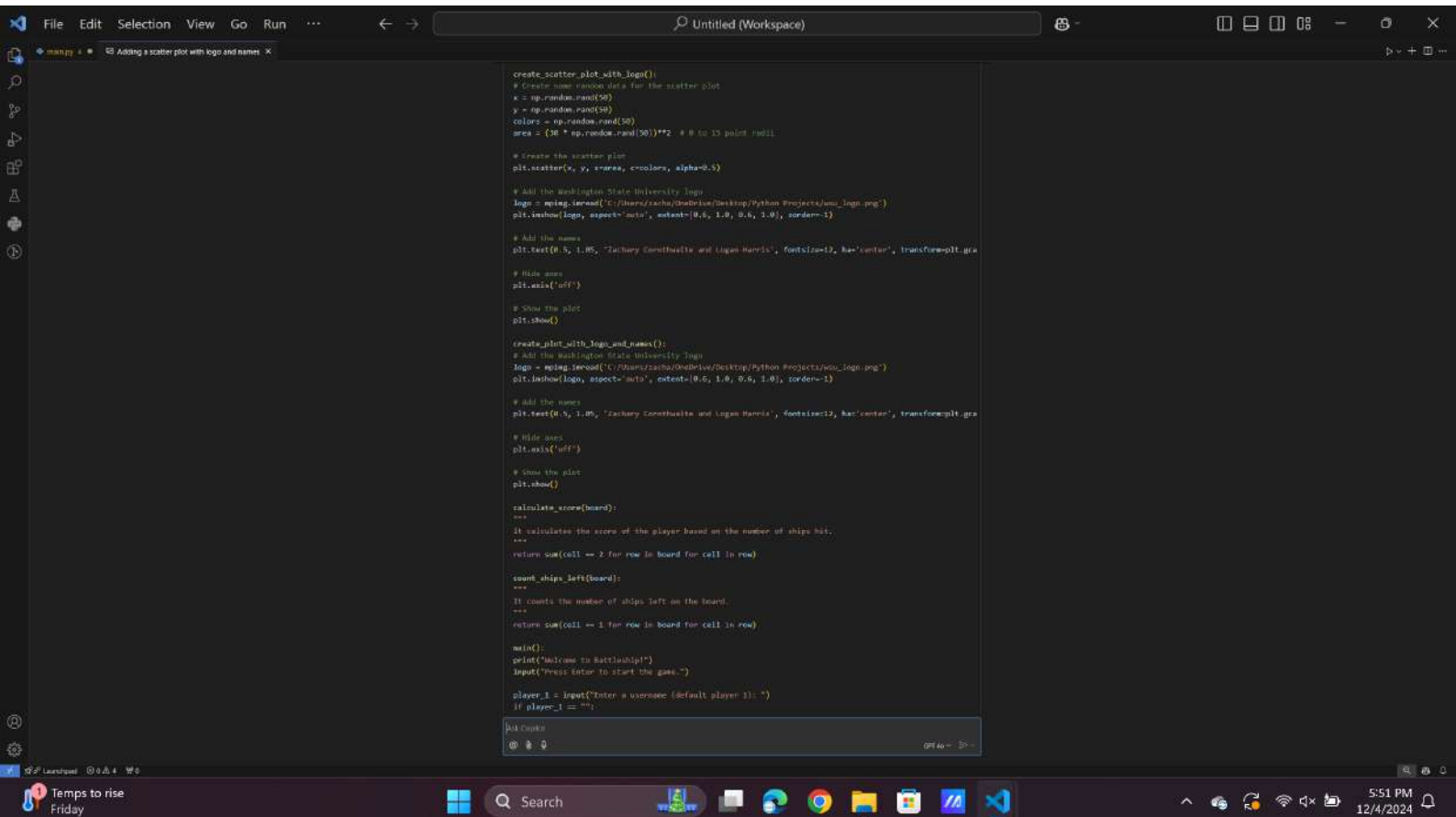
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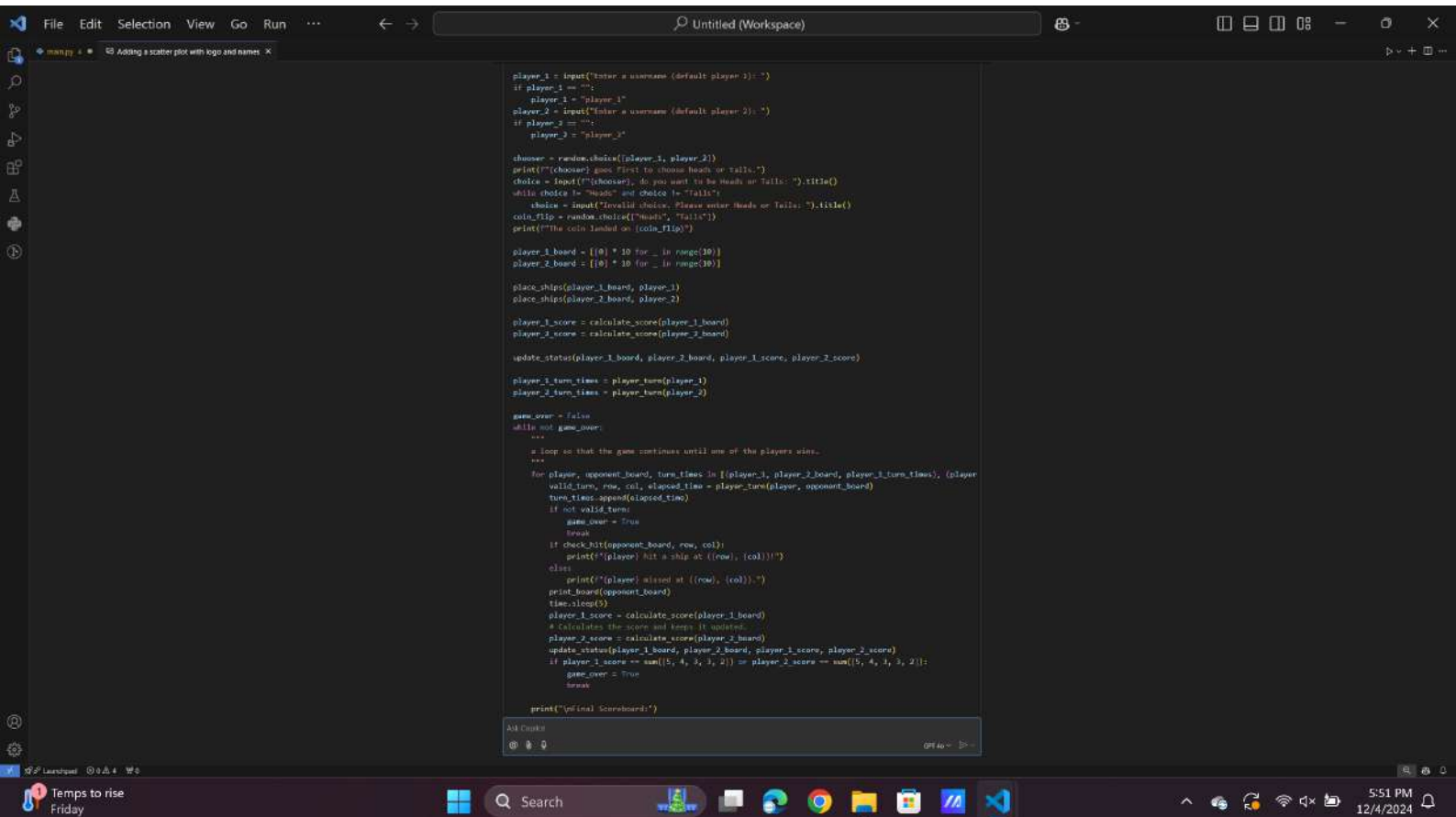
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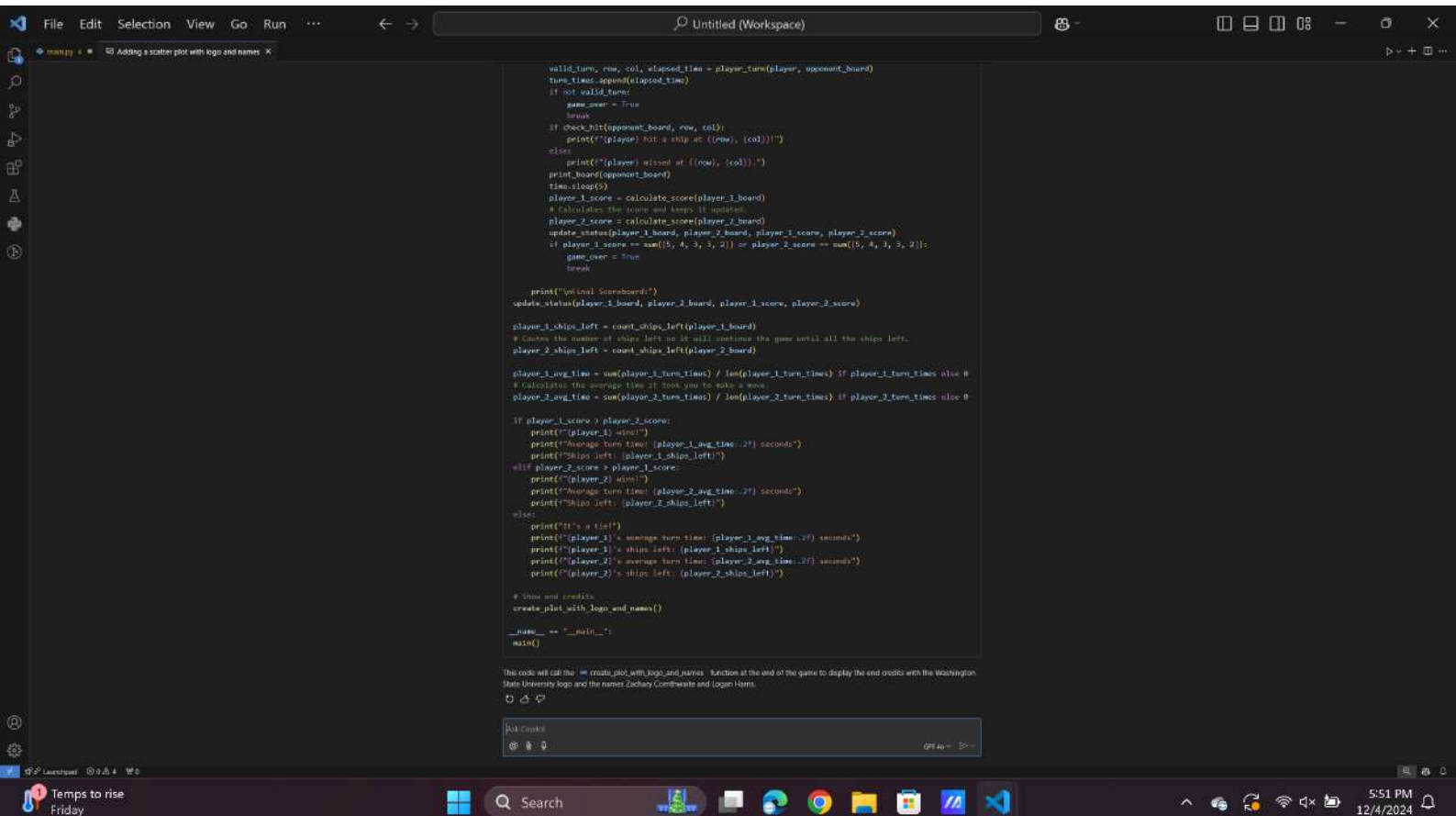
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why is my photo file not being found?

1. **Check the File Path:** Ensure that the file path to `logo_image` is correct. If the image is in the same directory as your script, you should include the file extension (e.g., `logo_image.png`).

If the image is not in the same directory, provide the relative or absolute path.







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how can i take the graph part off for the matplotlib where its just the names and the photo

[wsu matplotlib 20](#)

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[1 Used 1 reference](#)

To display only the names and the photo without the scatter plot, you can remove the code related to creating the scatter plot. Here's the updated function:

```
import matplotlib.pyplot as plt
import matplotlib.image as mpimg

def create_plot_with_logo_and_names():
    # Add the Washington State University logo
    logo = mpimg.imread('C:/Users/zacha/OneDrive/Desktop/Python Projects/wsu_logo.png')
    plt.imshow(logo, aspect='auto', extent=[0.6, 1.0, 0.6, 1.0], zorder=-1)

    # Add the names
    plt.text(0.5, 1.05, 'Zachary Cornthwaite and Logan Harris', fontsize=12, ha='center', transform=plt.

    # Hide axes
    plt.axis('off')

    # Show the plot
    plt.show()

# Call the function to create the plot with the logo and names
create_plot_with_logo_and_names()
```

This code will display only the logo and the names without the scatter plot.



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why are there color dots on the photo?

[wsu matplotlib 1 12](#)

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Enhancing final scoreboard functionality in game code

 ZacharyCornthwaite

fix the final scoreboard function so where it includes which player missed the most, how many turns each player took, total game time, and which player had the longest turn on average

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To include the additional information in the final scoreboard, you need to calculate the number of turns each player took, the total game time, and determine which player missed the most and which player had the longest turn on average. Here's the updated code:

```

update_status(player_1_board, player_2_board, player_1_score, player_2_score)
if player_1_score == sum([5, 4, 3, 2]) or player_2_score == sum([5, 4, 3, 2]):
    game_over = True
    break

print("Final Scoreboards")
update_status(player_1_board, player_2_board, player_1_score, player_2_score)

player_1_ships_left = count_ships_left(player_1_board)
player_2_ships_left = count_ships_left(player_2_board)

player_1_avg_time = sum(player_1_turn_times) / len(player_1_turn_times) if player_1_turn_times else 0
player_2_avg_time = sum(player_2_turn_times) / len(player_2_turn_times) if player_2_turn_times else 0

player_1_turns = len(player_1_turn_times)
player_2_turns = len(player_2_turn_times)

total_game_time = sum(player_1_turn_times) + sum(player_2_turn_times)

player_1_misses = count_misses(player_1_board)
player_2_misses = count_misses(player_2_board)

if player_1_score > player_2_score:
    print(f"{player_1} wins!")
    print(f"Average turn time: {player_1_avg_time:.2f} seconds")
    print(f"Ships left: {player_1_ships_left}")
elif player_2_score > player_1_score:
    print(f"{player_2} wins!")
    print(f"Average turn time: {player_2_avg_time:.2f} seconds")
    print(f"Ships left: {player_2_ships_left}")
else:
    or_int("It's a tie!")

```

Enhancing final scoreboard functionality in game code X

Untitled (Workspace)

```
player_1_avg_time = sum(player_1_turn_times) / len(player_1_turn_times) if player_1_turn_times else 0
player_2_avg_time = sum(player_2_turn_times) / len(player_2_turn_times) if player_2_turn_times else 0

player_1_turns = len(player_1_turn_times)
player_2_turns = len(player_2_turn_times)

total_game_time = sum(player_1_turn_times) + sum(player_2_turn_times)

player_1_misses = count_misses(player_1_board)
player_2_misses = count_misses(player_2_board)

if player_1_score > player_2_score:
    print(f"(player_1) wins!")
    print(f"Average turn time: {player_1_avg_time:.2f} seconds")
    print(f"Ships left: {player_1_ships_left}")
elif player_2_score > player_1_score:
    print(f"(player_2) wins!")
    print(f"Average turn time: {player_2_avg_time:.2f} seconds")
    print(f"Ships left: {player_2_ships_left}")
else:
    print("It's a tie!")
    print(f"(player_1)'s average turn time: {player_1_avg_time:.2f} seconds")
    print(f"(player_1)'s ships left: {player_1_ships_left}")
    print(f"(player_2)'s average turn time: {player_2_avg_time:.2f} seconds")
    print(f"(player_2)'s ships left: {player_2_ships_left}")

print(f"Total game time: {total_game_time:.2f} seconds")
print(f"(player_1) took {player_1_turns} turns")
print(f"(player_2) took {player_2_turns} turns")

if player_1_avg_time > player_2_avg_time:
    print(f"(player_1) had the longest turn on average")
else:
    print(f"(player_2) had the longest turn on average")

if player_1_misses > player_2_misses:
    print(f"(player_1) missed the most")
else:
    print(f"(player_2) missed the most")

# Show end credits
create_plot_with_logo_and_names()
```

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How do I implement `count_wisses`?

[msn.py@352-785](mailto:msn.py@352-785)

To implement the `count_misses` function, you need to iterate through the player's board and count the number of missed shots. Assuming that a miss is represented by a specific marker (e.g., 'M' for miss), you can implement the function as follows:

You can then use this function in your final scoreboard calculation. Here's how you can integrate it:

```

# Function to count the number of misses on a player's board
def count_misses(board):
    misses = 0
    for row in board:
        for cell in row:
            if cell == "R": # Assuming "R" represents a miss
                misses += 1
    return misses

# Example usage in the final scoreboard
update_status(player_1_board, player_2_board, player_1_score, player_2_score)
if player_1_score == sum([5, 4, 3, 3, 2]) or player_2_score == sum([5, 4, 3, 3, 2]):
    game_over = True
    break

print("\nFinal Scoreboard:")
update_status(player_1_board, player_2_board, player_1_score, player_2_score)

player_1_ships_left = count_ships_left(player_1_board)
player_2_ships_left = count_ships_left(player_2_board)

player_1_avg_time = sum(player_1_turn_times) / len(player_1_turn_times) if player_1_turn_times else 0
player_2_avg_time = sum(player_2_turn_times) / len(player_2_turn_times) if player_2_turn_times else 0

```

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