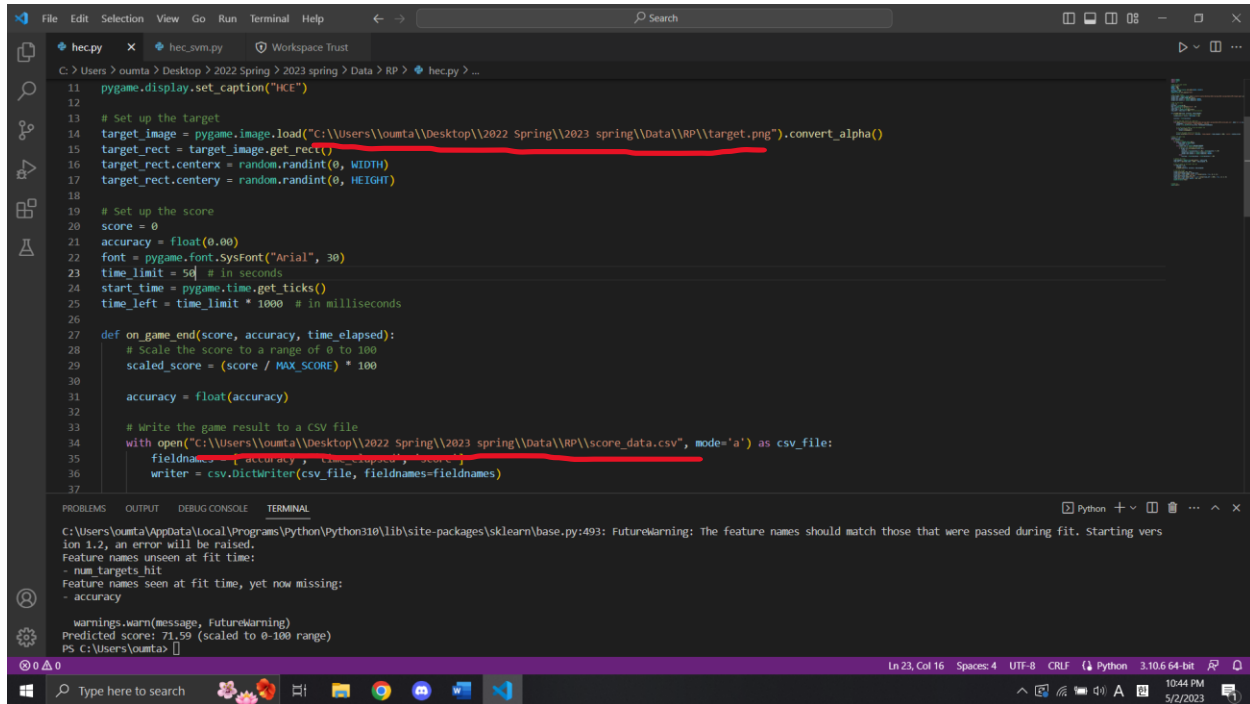


# Instruction Manual

1. Install an IDE that is capable of running python files (preferably Visual Studio Code).
2. Open hec.py
3. Change directories that are in lines 14 and 34 to your own file directory.



The screenshot shows the Visual Studio Code editor with the file `hec.py` open. The code is a Python script for a game. Lines 14 and 34 are highlighted with red underlines, indicating the paths that need to be changed to the user's own file directory. The terminal at the bottom shows the output of the script, including a warning about feature names and a predicted score.

```
11 pygame.display.set_caption("HEC")
12
13 # Set up the target
14 target_image = pygame.image.load("C:\\Users\\oumta\\Desktop\\2022 Spring\\2023 spring\\Data\\RP\\target.png").convert_alpha()
15 target_rect = target_image.get_rect()
16 target_rect.centerx = random.randint(0, WIDTH)
17 target_rect.centery = random.randint(0, HEIGHT)
18
19 # Set up the score
20 score = 0
21 accuracy = float(0.00)
22 font = pygame.font.SysFont("Arial", 30)
23 time_limit = 50 # in seconds
24 start_time = pygame.time.get_ticks()
25 time_left = time_limit * 1000 # in milliseconds
26
27 def on_game_end(score, accuracy, time_elapsed):
28     # Scale the score to a range of 0 to 100
29     scaled_score = (score / MAX_SCORE) * 100
30
31     accuracy = float(accuracy)
32
33     # Write the game result to a CSV file
34     with open("C:\\Users\\oumta\\Desktop\\2022 Spring\\2023 spring\\Data\\RP\\score_data.csv", mode='a') as csv_file:
35         fieldnames = ['accuracy', 'time_elapsed', 'score']
36         writer = csv.DictWriter(csv_file, fieldnames=fieldnames)
37         writer.writerow({'accuracy': accuracy, 'time_elapsed': time_elapsed, 'score': score})
```

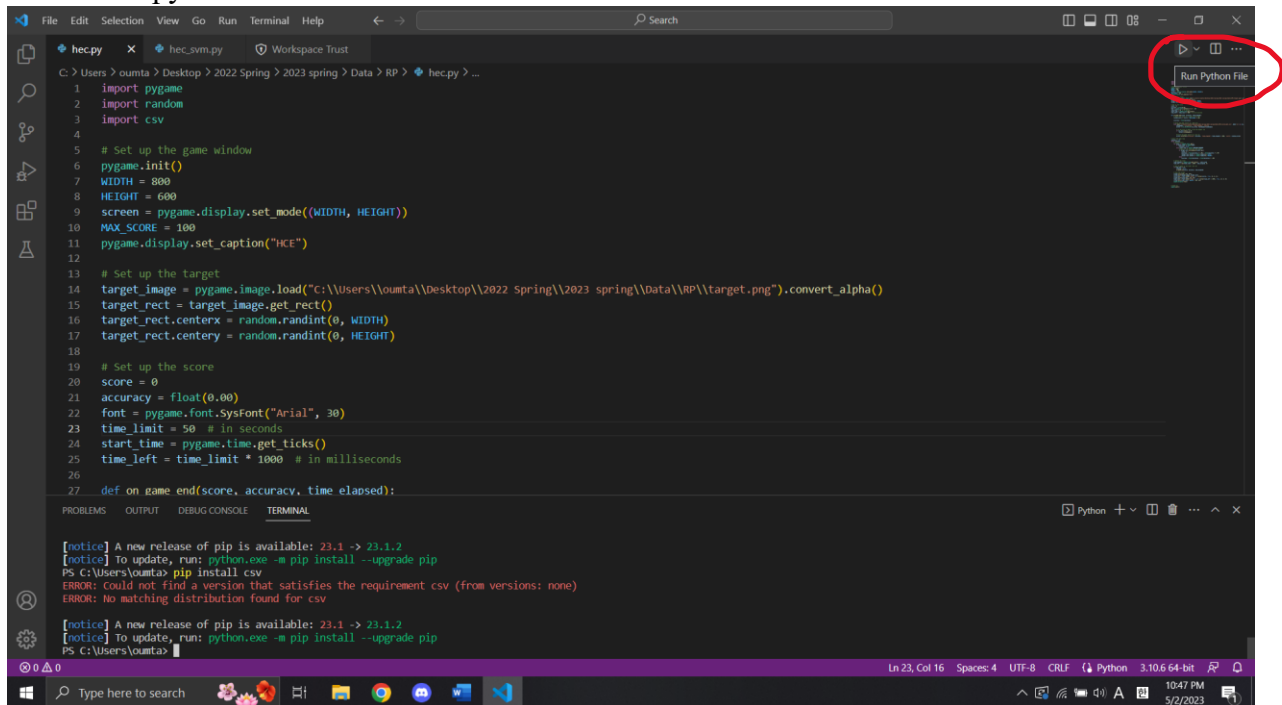
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

C:\Users\oumta\AppData\Local\Programs\Python\Python310\lib\site-packages\sklearn\base.py:493: FutureWarning: The feature names should match those that were passed during fit. Starting vers  
ion 1.2, an error will be raised.  
Feature names unseen at fit time:  
- num\_targets\_hit  
Feature names seen at fit time, yet now missing:  
- accuracy

warnings.warn(message, FutureWarning)  
Predicted score: 71.59 (scaled to 0-100 range)  
PS C:\Users\oumta>

4. Install needed libraries (by typing “pip install pygame”, “pip install csv”, etc. on the terminal)

#### 4. Run hec.py



5. Click all the appearing circles until the given time is over.

6. Open and run `hec_svm.py`

7. Observe the result on console screen.

