

How to Run the Code:

We have written our input into three different text files. In order to run each text file, one needs to modify line 6 of our code:

```
6      with open("C:\SW_data_1.txt") as f:
```

The correct directory to the input text file needs to be given to our program. For example, in the above example the first input file, “SW_data_1.txt”, is located in my local disk C folder. If I want to run the second input file and the file is located in the C folder, I have to write the following inside the parentheses: “**with open(“C:\SW_data_2.txt”) as f:**”. Similarly if I want to run the third input file, I have to write the following inside the parentheses: “**with open(“C:\SW_data_3.txt”) as f:**”. If the input file is located in any other folder, then, respectively one needs to change the folder name.

Pseudocode:

```
def castConnect (n, CAST) {  
  
    shortest = float('inf')  
    numConnect = 0  
    actor = ''  
    tempIndex = 0  
  
    for name in CAST[0]:  
        if name in CAST[1]:  
            numConnect += 1  
            actor = name  
  
            if numConnect < shortest:  
                shortest = numConnect  
  
            break  
  
    if numConnect = 0  
        for name in CAST[0]:  
            for i from (2, n):  
                if name in CAST[1]:  
                    tempIndex = 1  
                    numConnect += 1  
  
                if tempIndex != 0:  
                    for name2 in CAST[tempIndex]:  
                        if name2 in CAST[1]:  
                            castMatch = CAST[tempIndex]  
                            numConnect += 1  
  
                        if numConnect < shortest:  
                            shortest = numConnect  
                        break  
  
                if numConnect >= 2:  
                    break  
  
    }
```

Output Examples:

Example 1 Output:

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  JUPYTER

PS C:\Users\Tina\Desktop\project-1---it-s-a-small-world-team_andy-tina-daniel> & "C:/Program Files/Python310/python.exe" c:/Users/Tina/Desktop/project-1---it-s-a-small-world-team_andy-tina-daniel/SmallWorld.py
n is 6
shortest connection = 1, actor = Laurence Fishburne
```

Example 2 Output:

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  JUPYTER

PS C:\Users\Tina\Desktop\project-1---it-s-a-small-world-team_andy-tina-daniel> & "C:/Program Files/Python310/python.exe" c:/Users/Tina/Desktop/project-1---it-s-a-small-world-team_andy-tina-daniel/SmallWorld.py
n is 7
shortest connection: 2, cast: ['Abraham Attah', 'Asa Butterfield', 'Anne Hathaway', 'Chloe Grace Moretz', 'Daniel Radcliffe', 'Jeff Goldblum', 'Keanu Reeves', 'Tom Holland']
```

Example 3 Output:

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  JUPYTER

PS C:\Users\Tina\Desktop\project-1---it-s-a-small-world-team_andy-tina-daniel> & "C:/Program Files/Python310/python.exe" c:/Users/Tina/Desktop/project-1---it-s-a-small-world-team_andy-tina-daniel/SmallWorld.py
n is 7
shortest connection > 2 or no connection
```