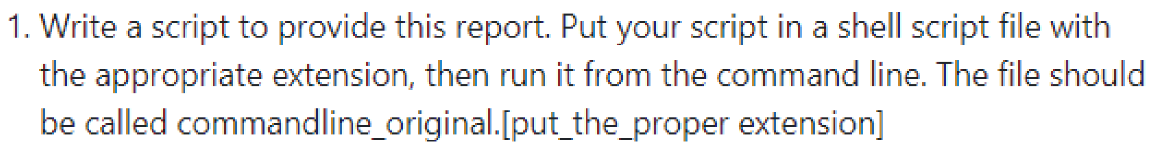
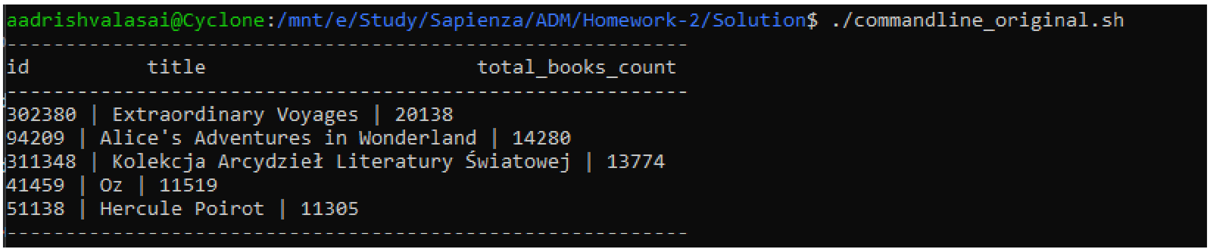
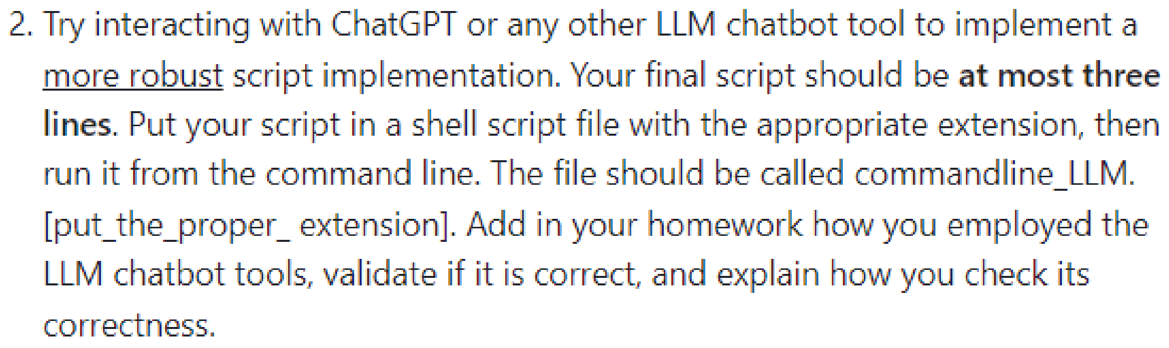


1. Write a script to provide this report. Put your script in a shell script file with the appropriate extension, then run it from the command line. The file should be called commandline_original.[put_the_proper extension]

The script is written in commandline_original.sh file with .sh extension. After running the shell script from command line by executing command “*./ commandline_original.sh*” output is shown as follows:

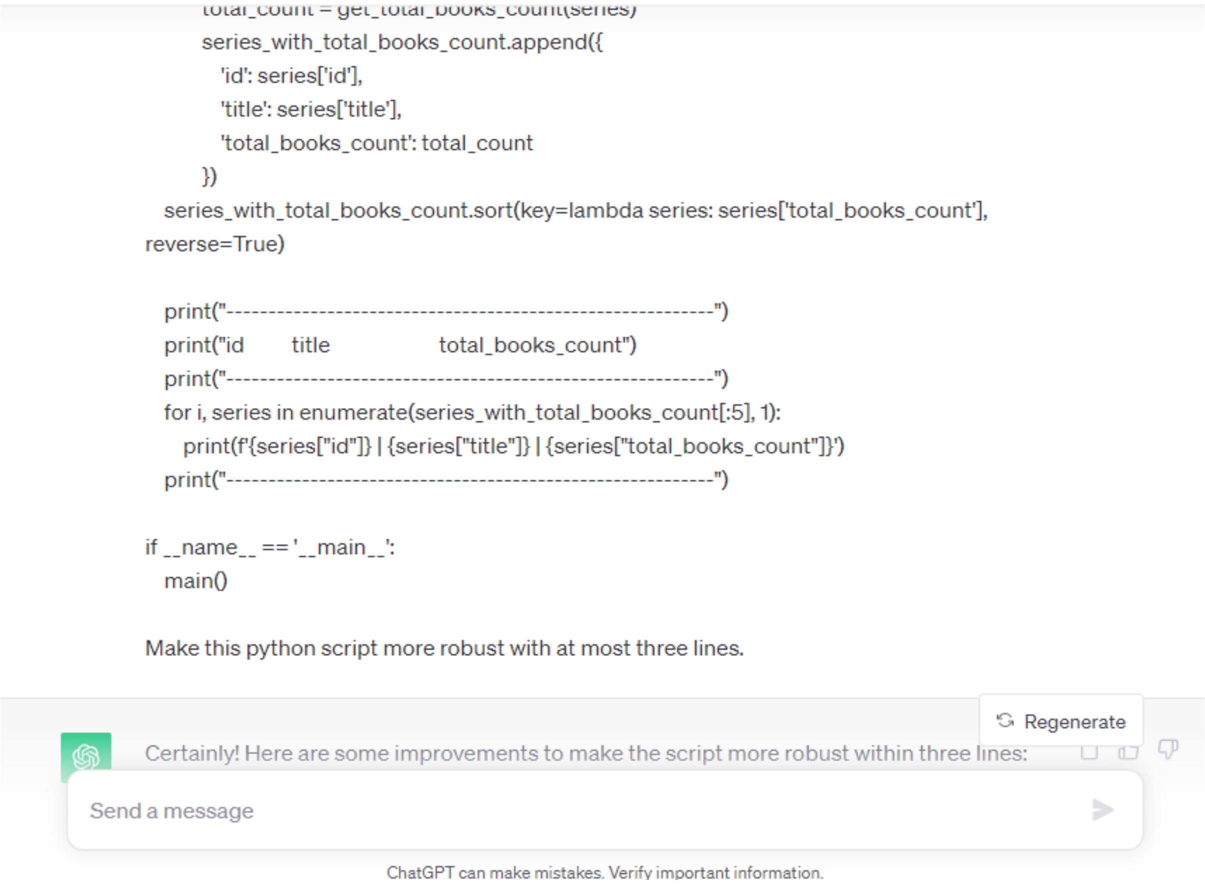


```
aadrishvalasai@Cyclone:/mnt/e/Study/Sapienza/ADM/Homework-2/Solution$ ./commandline_original.sh
----------------------------------------------------------
id          title                       total_books_count
----------------------------------------------------------
302380 | Extraordinary Voyages | 20138
94209 | Alice's Adventures in Wonderland | 14280
311348 | Kolekcja Arcydzieł Literatury Światowej | 13774
41459 | Oz | 11519
51138 | Hercule Poirot | 11305
----------------------------------------------------------
```



2. Try interacting with ChatGPT or any other LLM chatbot tool to implement a more robust script implementation. Your final script should be **at most three lines**. Put your script in a shell script file with the appropriate extension, then run it from the command line. The file should be called commandline_LLM.[put_the_proper_ extension]. Add in your homework how you employed the LLM chatbot tools, validate if it is correct, and explain how you check its correctness.

We have chosen ChatGPT as LLM chatbot tool. Python script is given as an input to the chatbot with additional command to make the script more robust and limited to three lines.

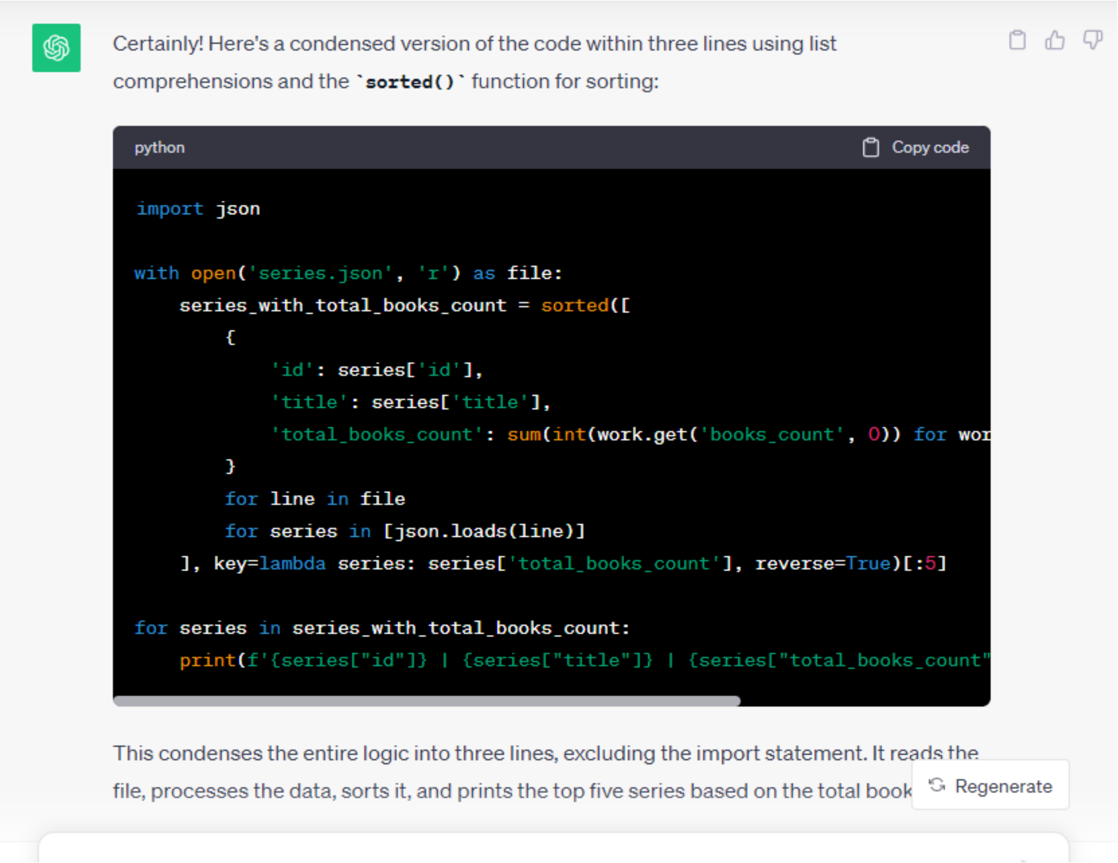


```
            total_count = get_total_books_count(series)
            series_with_total_books_count.append({
                'id': series['id'],
                'title': series['title'],
                'total_books_count': total_count
            })
    series_with_total_books_count.sort(key=lambda series: series['total_books_count'],
reverse=True)

    print("----------------------------------------------------------")
    print("id        title                 total_books_count")
    print("----------------------------------------------------------")
    for i, series in enumerate(series_with_total_books_count[:5], 1):
        print(f'{series["id"]} | {series["title"]} | {series["total_books_count"]}')
    print("----------------------------------------------------------")

if __name__ == '__main__':
    main()
```

Make this python script more robust with at most three lines.

Certainly! Here are some improvements to make the script more robust within three lines:

Output of chatbot is show in below snapshot:

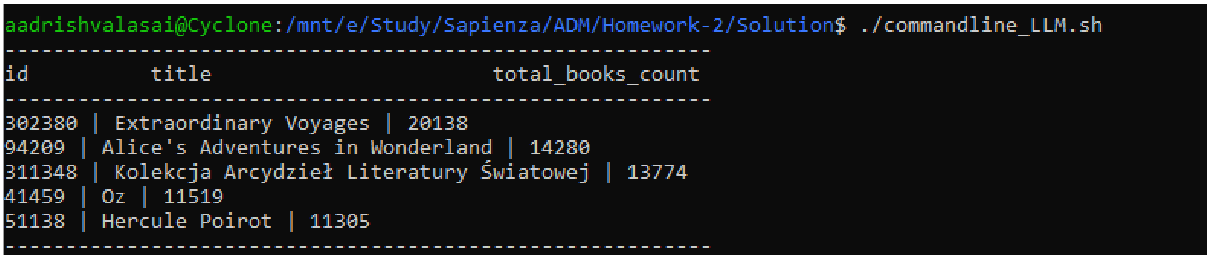


Certainly! Here's a condensed version of the code within three lines using list comprehensions and the `sorted()` function for sorting:

```python
import json

with open('series.json', 'r') as file:
    series_with_total_books_count = sorted([
        {
            'id': series['id'],
            'title': series['title'],
            'total_books_count': sum(int(work.get('books_count', 0)) for wor
        }
        for line in file
        for series in [json.loads(line)]
    ], key=lambda series: series['total_books_count'], reverse=True)[:5]

for series in series_with_total_books_count:
    print(f'{series["id"]} | {series["title"]} | {series["total_books_count"
```

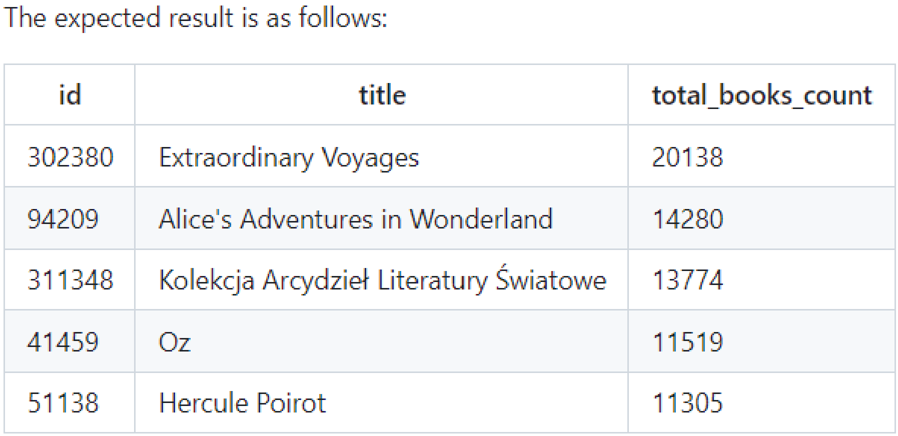
This condenses the entire logic into three lines, excluding the import statement. It reads the file, processes the data, sorts it, and prints the top five series based on the total book

Now, this python script is put into shell script with file name as *"commandline_LLM.sh"* which while running from command line shows output as follows:



```
aadrishvalasai@Cyclone:/mnt/e/Study/Sapienza/ADM/Homework-2/Solution$ ./commandline_LLM.sh
----------------------------------------------------------
id          title                           total_books_count
----------------------------------------------------------
302380 | Extraordinary Voyages | 20138
94209 | Alice's Adventures in Wonderland | 14280
311348 | Kolekcja Arcydzieł Literatury Światowej | 13774
41459 | Oz | 11519
51138 | Hercule Poirot | 11305
----------------------------------------------------------
```

Hence, we have validated that both the script shows same results which are verified from given expected results:



The expected result is as follows:

id	title	total_books_count
302380	Extraordinary Voyages	20138
94209	Alice's Adventures in Wonderland	14280
311348	Kolekcja Arcydzieł Literatury Światowe	13774
41459	Oz	11519
51138	Hercule Poirot	11305