Question 1.

To solve this challenge, write an *HTTP GET* method to retrieve information from a movie database.

Complete the function *getMovieTitles* in the editor.

**Function Description**

Given a string *substr, getMovieTitles* must perform the following tasks:

1. Query https://jsonmock.hackerrank.com/api/movies/search/?Title=substr(replace substr).
2. Initialize the *titles* array to store total string elements. Store the Title of each movie meeting the search criterion in the *titles* array.
3. Sort *titles* in ascending order and return it as your answer.

The query response from the website is a JSON response with the following five fields:

* page: The current page.
* per\_page: The maximum number of results per page.
* total: The total number of movies in the search result.
* total\_pages: The total number of pages which must be queried to get all the results.
* data: An array of JSON objects containing movie information where the Title field denotes the title of the movie.

In order to get all results, you may have to make multiple page requests. To request a page by number, your query should read https://jsonmock.hackerrank.com/api/movies/search/?Title=substr&page=pageNumber, replacing substr and pageNumber.

Input from stdin will be processed as follows and passed to the function.

A single string, substr, denoting the substring you must query for.

Solution Details:

* To parse JSON of movie details and map it to respective data object I have used Google gson library.
* Since there are multiple pages to inquire, while testing I found that for querying more pages the program was taking more time so to improve the performance I have created thread pool using Executors framework of Java. Hence, each page loading is assigned to thread pool’s task and processed concurrently.
* Since list of movie titles should be in ascending order, I have created a TreeSet of string to store the same. Also, multiple threads could try to update the set at the same time I have marked it as synchronized collection.