CHALLENGE.

The main objective of this challenge is to implement a keyword search engine for news articles. You are free to choose the programming language and to use utility libraries for individual tasks, but you are not allowed to use existing end-to-end keyword search engine libraries. The search engine should search over the news articles provided by a Kaggle challenge (https://www.kaggle.com/snapcrack/all-the-news/version/4#articles1.csv), and should focus only on the news articles 1-50.000 (articles1.csv).

You should submit all the source code in a ZIP archive and a separate text file containing the requested information.

TASKS.

1. Implement a function that will receive a search query as input and will output:
    - The total number of news articles in the dataset that match the search query.
    - The twenty most relevant news articles in the provided dataset that match the search query.
    - The ranking score for each one of the twenty most relevant news articles retrieved.

2. Implement unit tests for the implemented function and other relevant underlying functions.

3. Provide the list of search results for the following queries:
    - Trump
    - turtle fossil
    - "United States of America"

4. Although this is optional, you will receive extra credits if your search engine supports multi field search, allowing the client to specify which terms to match in each field. The fields to consider are title, publication, author and content. If that is the case, provide the list of search results for the following queries:
    - title:chicago
    - title:brazil publication:breitbart author:frances
    - title:death penalty AND content:boston

5. Provide a brief description of the solution that was implemented, including what was the approach, what decisions did you make and why, and what do you think could be future improvements.