Fourth Homework Assignment: Due on March 13, 2020 at 5 pm.

Develop a question and answer system capable of answering the following questions:

- Which companies went bankrupt in month X of year Y?
    - The answer should be the name of the companies.
- What affects GDP? What percentage of drop or increase is associated with this property?
    - It should work in the following way: What affects GDP? Answer: unemployment, interest rates, … Then the user asks the follow-up question: What percentage of drop or increase is associated with Z? (Here Z can be: unemployment or interest rates or any other property returned.) Answer: 1.0%
- Who is the CEO of company X?
    - The answer should be the first and last name of the CEO.

The interface is up to you. For example, it can be: read question from file, create answers (write to file or display on screen), or read question from command line.

For indexing of the corpus, you can use the document term matrix. Professional open source solutions are: Lucene, Solr, Elasticsearch (which clearly you are encouraged to learn and use).

Submit on github the following:

1) All source code developed. Instructions on how to use it (the question and answer system)
2) Sample output (for each question type, provide examples of 3 questions and 3 answers – thus a total of 9 questions and answers).
3) A half a page 'executive summary' of the findings
4) Document with all findings (charts and their description), business insights and value; it can be delivered as a document or presentation.