

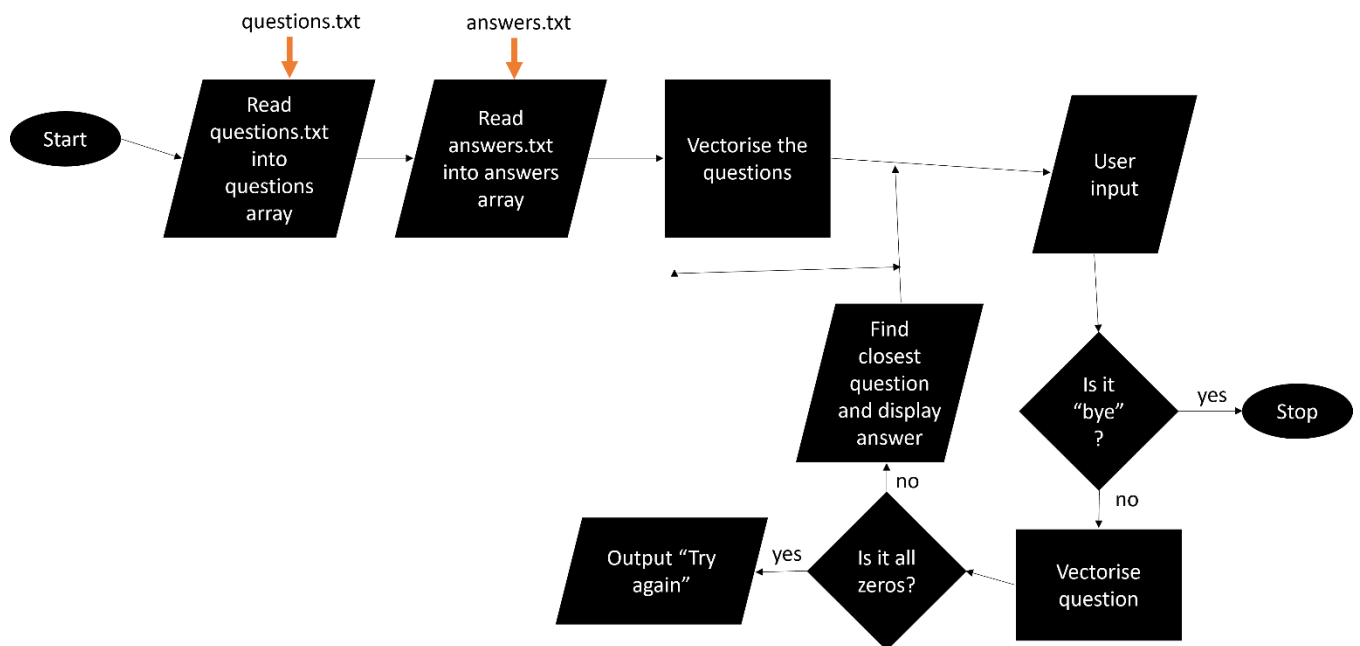
Tutorial 6 – ChatBot

In this exercise we will be creating a ChatBot that potential/future tourists can ask questions to, about Malta.

For this purpose, the FAQ section of VisitMalta, as seen here:

<https://www.visitmalta.com/en/info/malta-faq/>

have been copied onto 2 text files, one with questions and the other with answers. These will be provided to you.



The following steps will help you:

1. Create an array/list called *questions* and another called *answers*. Read the contents of the text files into the arrays, such that each question and answer are found in the same index in the 2 lists.

2. Use a CountVectorizer (set to eliminate stopwords) and use it to create the count vectors for each question in the *questions* list.
3. In a loop, ask the user to input any question, or else type 'bye' to exit
4. If the user enters a question, find its vector, using the same bag of words (same vectorizer) as used when processing the *questions* list.
5. If its vector contains only zeros, output "Sorry, I don't get that! Try again"
6. If vector is non-zero, use the cosine similarity to calculate the closest question in the questions list (most similar to the user input).
7. When you find it, display its answer.
8. The process should then repeat, and only stop when the user types "bye".

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Hello! How can I help you? Ask me any question about Malta! Type bye to exit chat.What is the capital city of Malta?
Valletta.
```

```
Hello! How can I help you? Ask me any question about Malta! Type bye to exit chat.How many people are there?
We have a population of about 514,564 (2019 estimate).
```

```
Hello! How can I help you? Ask me any question about Malta! Type bye to exit chat.bye
```

```
Process finished with exit code 0
```