

LP 1
Assignment : B2
Artificial Intelligence & Robotics

Title:- Chatbot

Date of completion:- 30.10.20

Problem Statement:- Implement any one of the following Expert System:-

- 1) Medical Diagnosis of 10 diseases based on adequate symptoms
- 2) Identifying birds of India based on characteristics

OR

Develop elementary chatbot suggestive investment as per the customers need.

Learning Objectives:- To implement a chatbot
:- Understand nltk.

Learning Outcomes :- Students will be able to implement chatbot.

Theory:- Software/Hardware requirements:-
OS (Linux), Python

Theory:-

1. Chatbot is used when an actor has to be given some information about something which is repetitive in nature.
2. NLTK is used for creating a chatbot. Following steps are followed for training the chatbot model.

- a) Text Remove stopwords
- b) Tokenization
- c) Text Analysis
- d) Lexican normalization
- 3) Sentiment analysis
- 4) Text classification
- 5) Performing sentiment analyse using text classification.

1) Text Analytics and NLP

- i) NLP enables the computer to interact with humans in natural manner.
- ii) Help machine to understand human language & desire meaning from it.

2) Compare text analytics, NLP and Text Mining:-

- i) Text mining is a process to exploring sizeable textual data and find patterns.
- ii) ~~NLP~~ processes with the underlying metadata.

3) Text analysis:-

- i) tokenization:- Break long text into small chunks. for easy processing.
- ii) Stop words:-
The unnecessary text may induce noise since we remove them from text.
- iii) Stemming:-
Finding the root word

iv) Sentiment Analysis:-
 Analyzing if the words are positive, negative or neutral.

v) Text Classification:-
 Identifying categories or class of given text such as blog, Book, tweet etc.

Test Case

Case	Expected Output	Actual Output	Remark
Information Warren Buffet	Information is showed	Information is showed	Passed
P/E show ratio	explained	explained	Passed
Information on investment types	showed	not found	Failed
retail ?	not shown	not shown	Failed

Conclusion:- Thus I implement a chatbot and understood text synthesis and analysis.