



#### **Lab Solution**



# **Unit objectives**



#### After completing this unit, you should be able to:

Learn about the solutions for all the lab exercises

## Lab specifications



- Hardware requirement:
  - i5 processor
  - 8GB RAM
  - Stable internet connection
- Software requirement:
  - Python
  - Pycharm or Jupyter IDEs
  - IBM Watson can be implemented along with Python NLTK
  - IBM Cloud Bluemix

## **Exercise 1: Solution**



• Exercise 1: Text Retrieval.

### **Exercise 2: Solution**



• Exercise 2: Processing, Subsetting, Merging and Cleaning Text Data.

## **Exercise 3: Solution**



• Exercise 3: Simple Language Processing.

## **Exercise 4: Solution**



Exercise 4: Language Processing.

## **Exercise 5: Solution**



• Exercise 5: Accessing Text Corpora.

## **Exercise 6: Solution**



• Exercise 6: Processing Raw Text.

## **Exercise 7: Solution**



• Exercise 7: Categorizing and Tagging Words.

## **Exercise 8: Solution**



• Exercise 8: POS Tagging using NLTK Treebank.

## **Exercise 9: Solution**



• Exercise 9: Tagging and Parsing.

## **Exercise 10: Solution**



Exercise 10: Analysing Text Similarity.

## **Exercise 11: Solution**



• Exercise 11: Analysing Word Sense.

## **Exercise 12: Solution**



• Exercise 12: Analysing Meaning of Words and Sentences.

### **Exercise 13: Solution**



• Exercise 13: POS tagging with Rule Based Viterbi Implementation.

## **Exercise 14: Solution**



• Exercise 14: Machine Translation.

## **Exercise 15: Solution**



• Exercise 15: Information Retrieval from Corpus.



### **Exercise 16: Solution**

**IBM ICE (Innovation Centre for Education)** 

Exercise 16: Information Answering QA system – Rule Based Text Analysis.

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## **Exercise 17: Solution**



• Exercise 17: Information Extraction from Text.

## **Exercise 18: Solution**



• Exercise 18: Relation Extraction using Subtree Matching.

## **Exercise 19: Solution**



• Exercise 19: Information Extraction from a Text Corpus.

## **Exercise 20: Solution**



• Exercise 20: Analysis of Sentiment and Subjectivity.

## **Exercise 21: Solution**



• Exercise 21: Analysing Meaning of Sentences.

# **Unit summary**



#### Having completed this unit, you should be able to:

Learn about the solutions for all the lab exercises