

Hadoop & BigData Lab*Week 1,2:***1. Implement the following Data structures in Java**

- a) Linked Lists b) Stacks c) Queues d) Set e) Map

*Week 3, 4:***2. (i) Perform setting up and Installing Hadoop in its three operating modes:**

- Standalone,
Pseudo distributed,
Fully distributed

- (ii) Use web based tools to monitor your Hadoop setup.

*Week 5:***3. Implement the following file management tasks in Hadoop:**

- Adding files and directories
- Retrieving files
- Deleting files

Hint: A typical Hadoop workflow creates data files (such as log files) elsewhere and copies them into HDFS using one of the above command line utilities.

*Week 6:***4. Run a basic Word Count Map Reduce program to understand Map Reduce Paradigm.***Week 7:***5. Write a Map Reduce program that mines weather data.**

Weather sensors collecting data every hour at many locations across the globe gather a large volume of log data, which is a good candidate for analysis with MapReduce, since it is semi structured and record-oriented.

*Week 8:***6. Implement Matrix Multiplication with Hadoop Map Reduce***Week 9,10:***7. Install and Run Pig then write Pig Latin scripts to sort, group, join, project, and filter your data.***Week 11,12:***8. Install and Run Hive then use Hive to create, alter, and drop databases, tables, views, functions, and indexes**

