IV Year – I SEMESTER **T P C**
0 3 2

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**