

**MARIS STELLA COLLEGE (AUTONOMOUS), VIJAYAWADA -8**  
**(Affiliated to Krishna University, Machilipatnam)**

**SYLLABUS**

**Subject: Computer Science**

**Semester: VI**

**Course Title: Practical - VII**

**Course Code: COMPC100**

**No of Hours: 30**

**Credits: 2**

**Objectives**

- To understand the detailed information on Apache Hadoop.
- To analyze the concepts of system administrator to work with the Hadoop Distributed File System and concepts of MapReduce that are required by a developer.
- To understand the scheduling capabilities of Hadoop.

**Course Outcomes**

**CO1:** List the capabilities of Hadoop and HDFS and administer HDFS

**CO2:** Describe the use of MapReduce and manage job execution

**CO3:** Describe some scenarios for loading data into HDFS

**List of practicals:**

1. Introduction to Hadoop.
2. Installation of Hadoop in 3 modes.
3. Hadoop echo System.
4. HDFS Architecture.
5. Introduction to Hbase.
6. Hbase Architecture.
7. Create employee table in Hbase.
8. HDFS Commands.
9. Introduction to Hive.
10. Installation of Hive.
11. Building Functions in HIVE.
12. Aggregate functions in HIVE.
13. HIVE DDL Commands.
14. HIVE DML Commands.
15. Hive Data Retrieval Commands.

**Reference:**

- <https://www.simplilearn.com/tutorials/hadoop-tutorial/what-is-hadoop>