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| --- | --- | --- | --- | --- | --- | --- |
| **Subject Code** | **Subject Title** | **Credit** | **Lecture** | **Tutorial** | **Practical** | **Type** |
|  | **Core – Big Data Analytics and Hadoop Programming Laboratory** | **4** | **5** | **0** | **5** | **Core** |
| **Introduction: Understand** the basic operations and creations of various applications using python.   |  |  |  | | --- | --- | --- | | CO1 | : | Setup Enviornment for Hadoop , Hive | | CO2 | : | Implement Hadoop programs with HDFS | | CO3 | : | Counting the words with Map Reduce Concepts | | CO4 | : | Use Hive to Create Database Definitions | | CO5 | : | Perform Various Manipulation in Hive | | | | | | | |

**List of Programs**

1. Setup Enviornment for Hadoop (Hadoop Installation).
2. Setup the environment ready for HIVE (Installation of HIVE)
3. Create a text file with some content in the Desktop and load the text file in to the HDFS
4. Counting the words in a text file using map-reduce jar file.
5. Write a Java Program to count no of words in a text file in HDFS (Compile and Run)
6. Do the followings in HIVE:

* Create Database
* Describe and extended database describe
* Alter Database
* Select database
* Create table
* Drop database

1. Do the followings in HIVE:

* Create Database
* Create table
* Describe table
* Load data into table

1. Do the followings in HIVE:

* Count
* Maximum & Maximum Distinct
* Minimum & Minimum Distinct
* Average & Average Distinct
* Sum

1. Do the followings in HIVE:
2. Create table
3. Load data into table
4. Do the following Data Manipulation
   * + - Select with where, Regular expression
       - Group by, Sort by, having
       - Limit
5. Do the followings joins in HIVE:

* Right outer join
* Left outer join
* Full outer join
* Union All

**Mapping of Course Outcomes with Program Outcomes:**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Course Outcomes** | **Program Outcomes** | | | | | | | |
| **P01** | **PO2** | **P03** | **P04** | **P05** | **P06** | **P07** | **P08** |
| CO1 | L | H | H | H | L | H | L | M |
| CO2 | M | H | M | L | M | H | M | L |
| CO3 | L | L | L | L | L | L | L | H |
| CO4 | M | H | M | L | M | H | M | L |
| CO5 | L | H | H | H | L | H | L | M |