Big Data Architecture

1/2565

Course Description : 01076634 ȚŎŬœšŚĹśŕ ĺ ťŕ šĺ őŬŷ ņ ż3 (3-0-6)

BIG DATA ARCHITECTURE

şŀŬŬŒį ŒĹżő: Ÿŕ ž ŭ

- ❑ Big data concept
- ❑ Hadoop cluster
- ❑ YARN
- ❑ Hadoop Distributed File System (HDFS)
- ❑ Map/Reduce
- ❑ Batch processing
- ❑ In-memory processing
- ❑ Real-time processing
- ❑ Data sources and data ingestion
- ❑ Application example

œŝ. şŀŬőŴŵşŀŬőŰť ŖŔŴŸœŷőţ ŝŨŢŕśœ2554 őŨőŒŴşŀŬŴŮĹŖŖŨŢŬ Ū

Objectives

1. Understand the concept of big data technology
2. Implement Hadoop cluster
3. Know the benefit of big data technology
4. Know technologies that related to big data

Outcomes

1. Describe the ecosystem of big data systems
2. Give examples of big data systems
3. Explain how big data systems can benefit business operations
4. Describe difference amongst batch, in-memory, and real-time processing
5. Explain how machine learning algorithms can benefit big data systems
6. Build Hadoop single node and cluster
7. Implement data processing on Hadoop

Syllabus

1. Introduction to Big Data Technology
2. Hadoop single node setup
3. Hadoop cluster setup
4. YARN, Yet Another Resource Manager
5. MapReduce
6. Cloudera cluster
7. Data Processing
8. Machine learning
9. Data Visualization

Grading

Assign 1	15%	(Giving an example of big data use case)
Assign 2	30%	(Implement data processing on Hadoop)
Timed Exam	30%	(Setup Hadoop cluster according to instructions)
Final	25%	(A4, Concept)