

Practical Plan

B.E. (Comp A) (Semester VII)

Subject: Big Data Analysis (Practical)

Teacher-in-charge: Prof. Ankita Amburle

Subject code: CSL7012

Academic Term: July – October 2022

Course Outcomes:

Upon completion of this course students will be able to:

- CSL7012.1 To interpret business models and scientific computing paradigms, and apply software tools for big data analytics.
- CSL7012.2 To implement algorithms that uses Map Reduce to apply on structured and unstructured data
- CSL7012.3 To perform hands-on NoSql databases such as Cassandra, HadoopHbase, MongoDB, etc.
- CSL7012.4 To implement various data streams algorithms.
- CSL7012.5 To develop and analyze the social network graphs with data visualization techniques.

Relationship of course outcomes with program outcomes:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO 11	PO 12	PSO1	PSO2
CSL7012.1	2	2			2								1	
CSL7012.2	2	1			1									
CSL7012.3	2				1									
CSL7012.4	2													
CSL7012.5	2	2	3	1	1	1		1	3	3		1		

CO Assessment Tools:

Course Outcomes	Indirect Method (20%)				
	Attendance	Lab Performance	Journal Assessment	End Sem Exam	Course exit survey
CSL7012.1	10%	20%	20%	50%	100%
CSL7012.2	10%	20%	20%	50%	100%
CSL7012.3	10%	20%	20%	50%	100%
CSL7012.4	10%	20%	20%	50%	100%
CSL7012.5	10%	20%	20%	50%	100%

CO calculation= (0.8 *Direct method + 0.2*Indirect method)

Rubrics for assessing Course Outcome with each assessment tool:

Laboratory:

Rubrics	Exceed Expectation (EE)	Meet Expectation (ME)	Below Expectation (BE)
On time submission Or completion (2)	Early or on time (2)	One session late (1)	More than one session late (0)
Preparedness (2)	Awareness about experiment to be performed, Knows the basic theory related to the experiment very well. (2)	Managed to explain the theory related to the experiment. (1)	Not aware of the theory to the point. (0)
Skill (4)	Structured and optimum performance (4)	Few steps are not appropriate (2)	Just managed (1)
Output (2)	Got proper output in the Lab turn (2)	Got partial output (1)	Failed to get the output (0)

Practical Session Plan

CLASS		BE Computer Engineering, Semester VII		
Academic Term		July – October 2022		
Subject		Big Data Analysis (CSL7012)		
Evaluation System			Hours	Marks
	Practical Examination		--	--
	Oral Examination		--	25
	Term work		--	25
	Total		--	50
Time Table	Day	Batch	Time	
	<i>Monday</i>	<i>C</i>	<i>8.45-10.45am</i>	
	<i>Monday</i>	<i>D</i>	<i>11.00am-1.00 pm</i>	
	<i>Thursday</i>	<i>B</i>	<i>11.00am-1.00 pm</i>	
	<i>Friday</i>	<i>A</i>	<i>11.00am-1.00 pm</i>	
Title of Experiments				
Sr.	Title			Attained COs
1	Study and Installation of Hadoop.			CSL7012.1
2	Hadoop HDFS Practical.			CSL7012.1
3	Write a program to implement Word Count using Map Reduce.			CSL7012.2
4	Write a program to sort a list of numbers using Map Reduce/Pyspark			CSL7012.2
5	Write a program to insert, search, update, delete and aggregate data using MongoDB NoSQL Database.			CSL7012.3
6	Write a command to perform insert, create, update and delete Cassandra (NoSQL) database.			CSL7012.3
7	Write a program to implement Matrix Multiplication algorithm using Map Reduce.			CSL7012.2
8	Data stream Algorithm: Implement DGIM Algorithm using any programming language.			CSL7012.4
9	Write a program to implement k-Means algorithm using any programming language.			CSL7012.4
10	Write a program to perform Twitter data/Healthcare data analysis using R language.			CSL7012.5
11	Write a program in python to implement any one Link Mining algorithm (PageRank/HITS) using Map Reduce.			CSL7012.5
12	Mini Project: One real life large data application using standard dataset			
Newly added experiments				
1	All experiments are new			
Practical Session Plan				
Batch	Dates			Remarks
	<i>Planned</i>	<i>Actual</i>		

Experiment No. 1			
Study and Installation of Hadoop.			
A	12/08/2022	12/08/2022	
B	11/8/2022	11/8/2022	
C	10/8/2022	10/8/2022	
D	10/8/2022	10/8/2022	
Experiment No. 2			
Hadoop HDFS Practical.			
A	26/8/2022	26/8/2022	
B	18/8/2022	18/8/2022	
C	22/8/2022	22/8/2022	
D	22/8/2022	22/8/2022	
Experiment No. 3			
Write a program to implement Word Count using Map Reduce.			
A	26/8/2022	26/8/2022	
B	18/8/2022	18/8/2022	
C	22/8/2022	22/8/2022	
D	22/8/2022	22/8/2022	
Experiment No. 4			
Write a program to sort a list of numbers using Map Reduce/Pyspark			
A	2/09/2022	02/09/2022	
B	1/09/2022	01/09/2022	
C	29/08/2022	29/08/2022	
D	29/08/2022	29/08/2022	
Experiment No. 5			
Write a program to insert, search, update, delete and aggregate data using MongoDB NoSQL Database.			
A	9/09/2022	09/09/2022	
B	8/09/2022	8/09/2022	
C	5/09/2022	5/09/2022	
D	5/09/2022	5/09/2022	
Experiment No. 6			
Write a command to perform insert, create, update and delete Cassandra (NoSQL) database.			
A	9/09/2022	09/09/2022	
B	8/09/2022	8/09/2022	
C	5/09/2022	5/09/2022	
D	5/09/2022	5/09/2022	
Experiment No. 7			
Write a program to implement Matrix Multiplication algorithm using Map Reduce.			
A	16/09/2022	16/09/2022	
B	15/09/2022	15/09/2022	
C	12/09/2022	12/09/2022	
D	12/09/2022	12/09/2022	
Experiment No. 8			
Data stream Algorithm: Implement DGIM Algorithm using any programming language.			
A	23/09/2022	23/09/2022	
B	22/09/2022	22/09/2022	
C	19/09/2022	19/09/2022	
D	19/09/2022	19/09/2022	

Experiment No. 9			
Write a program to implement k-Means algorithm using any programming language.			
A	30/09/2022	30/09/2022	
B	29/09/2022	29/09/2022	
C	26/09/2022	26/09/2022	
D	26/09/2022	26/09/2022	
Experiment No.10			
Write a program to perform Twitter data/Healthcare data analysis using R language.			
A	14/10/2022	14/10/2022	
B	13/10/2022	13/10/2022	
C	13/10/2022	13/10/2022	
D	13/10/2022	13/10/2022	
Experiment No.11			
Write a program in python to implement any one Link Mining algorithm (PageRank/HITS) using Map Reduce.			
A	21/10/2022	21/10/2022	
B	20/10/2022	20/10/2022	
C	17/10/2022	17/10/2022	
D	17/10/2022	17/10/2022	

Submitted By	Approved By
Prof. Ankita Amburle	i) Dr. Sujata Deshmukh Sign:
Sign:	ii) Dr. B. S. Daga Sign:
	iii) Prof. Merly Thomas Sign:
	iv) Prof. Monica Khanore Sign:
	v) Prof. Roshni Padate Sign:
	vi) Prof. Kalpana Deorukhkar Sign:
Date of Submission:	Date of Approval:
Remarks by DQAC (if any)	