Practical Plan

B.E. (Comp B) (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	Indirect Method (20%)						
Outcomes	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

CLAS			BE Computer En	ngineering, Semes	ter VII		
Acade	mic Term		July – October 2	July – October 2022			
Subjec	et		Big Data Analysi	is (CSL7012)			
E	Svaluation System			Hours	Marks		
		,	Practical Examination				
			Oral Examination		25		
			Term work		25		
			Total		50		
Time Table		Day	Batch	Ti	ne		
		Monday	A	8.45-10).45am		
		Monday	D	11.00am	-1.00 pm		
		Tuesday	С	11.00am	-1.00 pm		
		Wednesday	Wednesday B		11.00am-1.00 pm		
Title	of Experiments						
Sr.	<u> </u>	Title	<u> </u>		Attained COs		
1	Study and Installation of Hadoop.				CSL7012.1		
2	Hadoop HDFS Pra	actical.			CSL7012.1		
3	Write a program to	o implement Word Cou	ant using Map Reduce.		CSL7012.2		
4	Write a program to	o sort a list of numbers u	using Map Reduce/Pyspark		CSL7012.2		
5	Write a program tusing MongoDB		, delete and aggregate dat	a	CSL7012.3		
6	Write a comman (NoSQL) databa		eate, update and delete C	Cassandra	CSL7012.3		
7	Write a program to Reduce.	o implement Matrix Mu	ultiplication algorithm usin	ng Map	CSL7012.2		
8	Data stream Algor programminglang	rithm: Implement DGIM uage.	I Algorithm using any		CSL7012.4		
9			gorithm using any progran	nming	CSL7012.4		
10	Write a program to perform Twitter data/Healthcare data analysis using R language.			using R	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: O	ne <mark>real life large data a</mark>	pplication using standard	d dataset			
Vewly	added experiments						
1	All experin	nents are new					
Praci	tical Session Pla	an					
D	tch	Dates		Ron	narks		
BA.							

	allation of Hadoop.	10/00/2007	
A	12/08/2022	12/08/2022	
В	11/8/2022	11/8/2022	
С	10/8/2022	10/8/2022	
D	10/8/2022	10/8/2022	
E xperiment No Hadoop HDFS			
A	26/8/2022	26/8/2022	
В	18/8/2022	18/8/2022	
C	22/8/2022	22/8/2022	
D	22/8/2022	22/8/2022	
E xperiment No Trite a program	to implement Word Count	using Map Reduce.	
A	26/8/2022	26/8/2022	
В	18/8/2022	18/8/2022	
С	22/8/2022	22/8/2022	
D	22/8/2022	22/8/2022	
Experiment No		M D 1 /D 1	
	to sort a list of numbers usin 2/09/2022	02/09/2022	
A B	1/09/2022	02/09/2022	
С	29/08/2022	29/08/2022	
	29/UO/2U22	2 7 /U0/2U22	
D	29/08/2022	29/08/2022	
D Experiment No	to insert, search, update,	29/08/2022 delete and aggregate data us	ing MongoDB NoSQL Database.
D Experiment Notes Trite a program A	to insert, search, update, 9/09/2022	29/08/2022 delete and aggregate data us 09/09/2022	ing MongoDB NoSQL Database.
D Experiment Notes a program A B	9/09/2022 8/09/2022	29/08/2022 delete and aggregate data us 09/09/2022 8/09/2022	ing MongoDB NoSQL Database.
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D Experiment Note that I have a program A B C D Experiment Note that I have a command A B C D Experiment Note that I have a command A B C D Experiment Note that I have a program A Trite a program	2. 5 to insert, search, update, 9/09/2022 8/09/2022 5/09/2022 2. 6 nd to perform insert, create 9/09/2022 8/09/2022 5/09/2022 5/09/2022 5/09/2022 2. 7 to implement Matrix Multi	29/08/2022 delete and aggregate data us 09/09/2022 8/09/2022 5/09/2022 e, update and delete Cassandr 09/09/2022 8/09/2022 5/09/2022 5/09/2022 plication algorithm using Map I	a (NoSQL) database.
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D Experiment Note that the second sec	2. 5 to insert, search, update, 9/09/2022 8/09/2022 5/09/2022 5/09/2022 2. 6 nd to perform insert, creat 9/09/2022 8/09/2022 5/09/2022 5/09/2022 2. 7 to implement Matrix Multi 16/09/2022 15/09/2022 12/09/2022 12/09/2022	29/08/2022 delete and aggregate data us 09/09/2022 8/09/2022 5/09/2022 e, update and delete Cassandr 09/09/2022 8/09/2022 5/09/2022 5/09/2022 5/09/2022 plication algorithm using Map I 16/09/2022 15/09/2022	a (NoSQL) database.
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D Experiment Note A B C D Experiment Note A B C D Experiment Note B C D	2. 5 to insert, search, update, 9/09/2022 8/09/2022 5/09/2022 5/09/2022 2. 6 nd to perform insert, creat 9/09/2022 8/09/2022 5/09/2022 5/09/2022 2. 7 to implement Matrix Multi 16/09/2022 15/09/2022 12/09/2022 12/09/2022	29/08/2022 delete and aggregate data us 09/09/2022 8/09/2022 5/09/2022 5/09/2022 e, update and delete Cassandr 09/09/2022 8/09/2022 5/09/2022 5/09/2022 plication algorithm using Map F 16/09/2022 15/09/2022 12/09/2022	a (NoSQL) database.
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Experiment Note A B C D Experiment Note B C D B Experiment Note B Experi	2. 5 to insert, search, update, 9/09/2022 8/09/2022 5/09/2022 5/09/2022 2. 6 nd to perform insert, creat 9/09/2022 8/09/2022 5/09/2022 5/09/2022 5/09/2022 15/09/2022 15/09/2022 12/09/2022 12/09/2022 2. 8 Drithm: Implement DGIM A 23/09/2022	29/08/2022 delete and aggregate data us 09/09/2022 8/09/2022 5/09/2022 e, update and delete Cassandr 09/09/2022 8/09/2022 5/09/2022 5/09/2022 5/09/2022 16/09/2022 12/09/2022 12/09/2022 12/09/2022 12/09/2022 12/09/2022	a (NoSQL) database.

Experiment N			
Write a progran	n to implement k-Means algor	rithm using any programming	language.
A	30/09/2022	30/09/2022	
В	29/09/2022	29/09/2022	
С	26/09/2022	26/09/2022	
D	26/09/2022	26/09/2022	
Experiment N	o.10		
Write a program	n to perform Twitter data/He	althcare data analysis using l	R language.
A	14/10/2022	14/10/2022	
В	13/10/2022	13/10/2022	
С	13/10/2022	13/10/2022	
D	13/10/2022	13/10/2022	
Experiment N	o.11		
Write a progran	n in python to implement any	one Link Mining algorithm (PageRank/HITS) using Map Reduce.
A	21/10/2022	21/10/2022	
В	20/10/2022	20/10/2022	
С	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:	
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	v) Prof. Roshni Padate Sign:	
	vi) Prof. Kalpana Deorukhkar Sign:	
Date of Submission:	Date of Approval:	