IV B.Tech – I Semester (17CS751) MEAN STACK-II (Skill Course Lab-II)

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3

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2

Int. Marks Ext. Marks Total Marks

60 40 100

Pre-Requisites: Mean Stack-I

Course Objectives:

- Construct dynamic web pages using CSS and JS
- Generate CRUD applications
- Creating and Storing data with MongoDB

Experiment 1: Write an Angular JS code which can build animated transition with the help of CSSExperiment 2: Write an Angular JS code which describes filters in Angular JSExperiment 3: Write an Angular JS code to display tables in different formats.

Experiment 4: Write an Angular JS code to display Angular JS form and submit the data. **Experiment 5:**

- a) Write a Java Script program in Node JS to read the data from the file?
- b) Write a Java Script program in Node JS to write the data to the file?

Experiment 6: (CRUD operations)

- a) Write a program in Node JS to check whether the database has been created successfully or not in MongoDB? (first install mongodb driver using npm install mongodb)
- b) Write a program in Node JS to insert single document in Mongo DB?
- c) Write a program in Node JS to insert multiple documents in MongoDB?
- d) Write a program in Node JS to update document in mongo db?
- e) Write a program in Node JS to delete single document in mongo db?

Experiment 7:

- a) Write a program in Node JS to display single document in mongo db?
- b) Write a program in Node JS to display multiple documents in mongo db?
- Experiment 8: Write a Java Script program using Node JS to send mail?

Experiment 9: Write a Java Script program using Node JS to store the data from MongoDB to excel file? (Install append-stream using npm install append-stream)

Experiment 10: Write a Java Script program to store and retrieve data from MongoDB using Node JS remotely?

Experiment 11: Write a Java Script using Node JS to generate OTP CODE.

Experiment 12: Write a Java Script program to perform Banking operations using NODEJS and MongoDB.

Experiment 13: Write a MEAN stack application program to perform Blood Bank Management System.

Course outcomes:

1	Analyze a web page and identify its elements and attributes, implement Directives, Controllers and filters in AngularJS.	L4
2	Create AngularJS Forms and validate the data.	L3
3	Use modules in Node JS (i.e., nodemailer, nodemon, fs, mongodb)	L3
4	Connect server(nodeJS) to mongoDB and perform select find, insert, update and remove	L3
	operations on collection in the mongodb database.	
5	Working with ExpressJS	L4
6	Create an application using four technologies MongoDB, ExpressJS, AngularJS, NodeJS	L3
	(MEAN)	

Correlation of COs with POs & PSOs:															
	PO-	PSO-	PSO-	PSO-											
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
CO-1	1	2	2	2	2	-	-	-	1	2	2	1	1	2	-
CO-2	1	2	1	2	2	-	-	-	2	1	2	1	1	1	-
CO-3	1	1	-	2	2	-	-	-	2	1	2	1	1	2	-
CO-4	2	2	2	2	3	-	-	-	2	2	2	2	1	2	-
CO-5	1	-	-	1	2	-	-	-	1	-	2	1	-	2	-
CO-6	1	2	1	2	3	-	-	-	2	2	2	2	1	3	-

Raghu Engineering College (A)

IV B.Tech – I Semester (17CS751) MACHINE LEARNING USING PYTHON LAB (Skill Course Lab-II)

Int. Marks	Ext. Marks	Total Marks	L	Т	Р	С
60	40	100	-	-	3	2

Pre-Requisites: Programming skills of software systems strong mathematical knowledge, probability and statistics , analytical skills, understanding logical algorithms

Course Objectives:

- Construct machine learning basic algorithms Find-S etc.,
- Read and anlyze contents of csv files
- Applying K-Means and Back propagation algorithms

Experiment 1:

Implement and demonstrate the FIND-S algorithm for finding the most specific hypothesis based on a given set of training data samples. Read the training data from a .CSV file.

Experiment 2:

For a given set of training data examples stored in a .CSV file, implement and demonstrate the Candidate-Elimination algorithm to output a description of the set of all hypotheses consistent with the training examples.

Experiment 3:

Write a program to demonstrate the working of the decision tree based ID3 algorithm. Use an appropriate data set for building the decision tree and apply this knowledge to classify a new sample.

Experiment 4:

Build an Artificial Neural Network by implementing the Backpropagation algorithm and test the same using appropriate data sets.

Experiment 5:

Write a program to implement the naïve Bayesian classifier for a sample training data set stored as a .CSV file. Compute the accuracy of the classifier, considering few test data sets.

Experiment 6:

Assuming a set of documents that need to be classified, use the naïve Bayesian Classifier model to perform this task. Built-in Java classes/API can be used to write the program. Calculate the accuracy, precision, and recall for your data set.

Experiment 7: Write a program to construct a Bayesian network considering medical data. Use this model to demonstrate the diagnosis of heart patients using standard Heart Disease Data Set. You can use Java/Python ML library classes/API.

Experiment 8: Apply EM algorithm to cluster a set of data stored in a .CSV file. Use the same data set for clustering using k-Means algorithm. Compare the results of these two algorithms and comment on the quality of clustering. You can add Java/Python ML library classes/API in the program.

Experiment 9: Write a program to implement k-Nearest Neighbour algorithm to classify the iris data set. Print both correct and wrong predictions. Java/Python ML library classes can be used for this problem.

Experiment 10: Implement the non-parametric Locally Weighted Regressionalgorithm in order to fit data points. Select appropriate data set for your experiment and draw graphs.

Course Outcomes:

CO1Understand the practical implementation of Machine Learning algorithmsL2

IV B.Tech – I Semester (17CS751) CLOUD COMPUTING LAB (Skill Course Lab-II)

Int. Marks	Ext. Marks	Total Marks	L	Т	Р	С
60	40	100	-	-	3	2
Pre-Requis	ites: OS, DBN	AS, CN				
Course Obj	jectives:					

- To provide an overview of concepts of Cloud Computing.
- To make the students understand concepts of virtualization and to use cloud as Infrastructure, Platform, Software services.
- To understand the security features, user management of Cloud.

Experiment 1: To study cloud architecture and cloud computing model
Experiment 2: Installation and Configuration of virtualization using KVM
Experiment 3: To study and implementation of Infrastructure as a Service
Experiment 4: To study and implementation of identity management
Experiment 5: To study and implementation of Storage as a Service
Experiment 6: To Study Cloud security management
Experiment 7: Mini Project

Course Outcomes:

CO1	Student should understand and appreciate cloud architecture.				
CO2	Student can create and run virtual machines on open-source OS	L3			
CO3	Student can implement Infrastructure, storage as a Service.	L3			
CO4	Students can install and appreciate security features and user management for cloud	L3			
	using web application.				