ANURAG ENGINEERING COLLEGE

(An Autonomous Institution)

(IT531PE) FULL STACK DEVELOPMENT LAB

(Professional Elective–I)

III Year B.Tech. IT- I Sem

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Prerequisites:

1. Object Oriented Programming
2. Web Technologies

Course Objectives:

The objectives of this course are to provide:

- Introduce fast, efficient, interactive and scalable web applications using run time environmentprovided by the full stack components.
- To introduce the implementation of Node JS
- To introduce the implementation of MongoDB
- Develop an Express and Angular JS.
- To introduce the implementation of React JS.

LIST OF EXPERIMENTS:

1. Create an application to setup nodeJS environment and display "Hello World".
2. Create a NodeJS application for user login system.
3. Write a NodeJS program to perform read, write and other operations on a file.
4. Write a NodeJS program to read form data from query string and generate response using NodeJS
5. Create a food delivery website where users can order food from a particular restaurant listed in the website for handling http requests and responses using NodeJS.
6. Implement a program with basic commands on data bases and collections using Mongo DB.
7. Implement CRUD operations on the given data set using Mongo DB.
8. Perform Count, Limit, Sort, and Skip operations on the given collections using MongoDB.
9. Develop an angular JS form to apply CSS and Events.
10. Develop a Job Registration form and validate it using angularJS.
11. Write an angularJS application to access JS ON file data of an employee from a server using $http service.
12. Develop a web application to manage student information using Express and AngularJS.
13. Write a program to create a simple calculator Application using ReactJS.
14. Write a program to create a voting application using ReactJS
15. Develop a leave management system for an organization where users can apply different types

of leaves such as casual leave and medical leave. They also can view the available number of days using react application.

16. Build a music store application using react components and provide routing among the web pages.
17. Create are act application for an online store which consist of registration, login, product information pages and implement routing to navigate through these pages.

Course Outcomes:

1. Design flexible and responsive
2. Web applications using NodeJS, React, Express and Angular.
3. Perform CRUD operations with Mongo DB on huge amount of data.
4. Develop real time applications using react components.
5. Use various full stack modules to handle http requests and responses.

Text Books:

1. Brad Dayley, Brendan Dayley, Caleb Dayley., Node.js, MongoDB and Angular Web Development, 2nd Edition, Addison -Wesley, 2019.
2. Mark Tielens Thomas.,React in Action,1stEdition, Manning Publications.

Reference Books:

1. Vasan Subramanian, Pro MERN Stack,Full Stack Web App Development with Mongo, Express, React, and Node,2nd Edition,Apress,2019.
2. Chris North wood,The Full Stack Developer: Your Essential Guide to the Everyday Skills Expected of a Modern Full StackWeb Developer',1st edition,Apress,2018.
3. Brad Green & Seshadri.AngularJS.1st Edition.O'Reilly Media,2013.
4. Kirupa Chinna thambi, Learning React: AHands-On Guide to Building Web Applications Using React and Redux, 2nd edition, Addison-Wesley Professional,2018.
5.

CO-PO-PSO Mapping:

	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10	PO-11	PO-12	PSO-1	PSO-2
CO-1	H	M	H		H					H		H	H	
CO-2	M	M		L		M						M		
CO-3	H	L	H	M	H				M			H		
CO-4	L	M	L	M	L							M		
CO-5														

H-HIGH **M**-MODERATE **L**-LOW