

Session - 3hrs	Topics	Minor Projects
S1	HTML - Tags, Semantic, Elements, anchor, iFrame, Video	Design a responsive and static web page for college fest.
S2	HTML - img, list, table, form, entities	
S3	CSS - Box Model, Selector, Combinators, Specificity, Units	
S4	CSS - Pseudo Classes, Pseudo Elements, Flex-box	
S5	CSS - Grid, Display, Position, Media Query, transition	
S6	JavaScript - Variables, Data types, Scope, Type coercion, Function, Conditionals, Object, Array, Window, DOM, Selectors	Design a dynamic JS powered web page that fetches data from a server and renders at the client side. For e.g. a web page that searches and displays departmental data across a college
S7	Javascript - DOM Manipulation, Events, Form handling, First Class Citizen, Higher Order Function, Callbacks	
S8	Javascript - Asynchronous nature of javascript, setTimeout, Call Stack, Event Loop, Use Promise of Fetch API: then-catch	
S9	Javascript - Imp Array methods, Loops, Mutability, ES6 specific, Promise: Async-Await	
S10	Backend - Router, IP, Mac, Server, Client, Http/s, internet, isp, dns, bandwidth, throughput, latency, response time, Client Side Rendering, Server Side Rendering	Server Side Rendered Website to show Courses offered by the Institute and their information
S11	NodeJS - Installation, import-export, modules, npm, destructuring, stream, buffer, fs, http, nodemon, port, log file, url	
S12	NodeJS - Server Side Rendering (SSR) using fs and html template	
S13	NodeJS - Code refactoring, Basic Routing with if-else	
S14	ExpressJS - Basics, Routes, REST APIs	Backend of Institute's Library Management System
S15	ExpressJS - Middleware, Router, Morgan Middleware, Middleware Chaining	
S16	MongoDB - ATLAS, Compass, installation, Querying Mongoose - installation, connection, model, schema, MVC	
S17	ExpressJS + MongoDB : CRUD Ops	
S18	ExpressJS + MongoDB : Advance Querying, searching, sorting and pagination)	
S19	ReactJS : without JSX, Security, with CRE & CDN, JSX, Bundler (Parcel), React Element & Component	A react powered Frontend for Institute's Library Management System
S20	ReactJS : Component composition, styling, Handson, Props, Virtual DOM	
S21	ReactJS : Routing, Navigation and Query	
S22	ReactJS : State management using context API, secured routes	
S23	ReactJS + ExpressJS : Authentication (Bcrypt, JsonWebToken - JWT, Cross Origin Resource Sharing - CORS, Cookies, Local Storage)	
S24	ReactJS + ExpressJS : OTP Service using NodeMailer, Data handling and Security	
S25	Deployment : Seperately deploying the frontend and backend on different hosts. Mangning access credentials in the environment variable to secure them.	Deployment on Cloud
Capstone Project Ideas		
1	An application to run instant quizzes in classrooms of ABES	
2	An application for admins to broadcast major notifications across a specific set of students	
3	More ideas are welcome :)	