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| **Start Date** | 14-Aug | **End Date** | 18-Sep |  |  |
| **August** | | | **September** | | |
| **Week 1** | 14-Aug | * Setup React App with create-react-app * Understand JSX Syntax, Expression & Structure of the Application. | **Week 4** | 2-Sep | * Frontend & Backend connection. * Fetching Data from backend. * Sending data to backend. |
| 15-Aug | * React Router * Route matching & Dynamic Routing * Navigation / Links | 3-Sep | * Authentication (Login /Logout) * Authorization user roles & permissions * Sessions & Cookies. |
| 16-Aug | * Creating Components & Pages * Introduction to Hooks (useState, useEffect) * Creating Custom hooks. | 4-Sep | * File handling & Uploads * Handling files with multer. |
| **Week 2** | 19-Aug | * Creating/Managing Forms & Inputs * Controlled Components * Handling & Validation (Formik/yup) * Event Handling for Inputs. | 5-Sep | * Review of CURD Operations. * Review of relations & indexing. * Review of API Integration |
| 20-Aug | * Local State with useState * Create ContextApi * Introduction to Redux & create (Setup, Actions, Reducers & Store) | 6-Sep | * Error Handling. * Try-Catch * Middleware * Debugging Application |
| 21-Aug | * Advance Hooks * UseMemo, useCallBack, useRef | **Week 5** | 9-Sep | * Final Project Planning & Setup. * Research on Project. * List down the requirements. |
| 22-Aug | * Styling in React (modular/non ) * Styled Components, Inline Styles. * Css Properties (Flex, Grid, Position etc.) | 10-Sep | * Developing Frontend of project. * Components * Pages * Forms * CSS Styling |
| 23-Aug | * Third Party Libraries * Toast Notification (React-Toastify) * UI Frameworks (Material Ui, Bootstrap) | 11-Sep | * Making frontend responsive for computer, tablet & mobile phone. * Using Media queries. |
| **Week 3** | 26-Aug | * Testing Introduction/Research * Unit Testing * React Testing Libraries | 12-Sep | * Developing backend with node. * Database connection along with frontend backend connection. * Handling Requests & Responses. |
| 27-Aug | * Creating Production builds * Research Deployment Platforms & try (Vercel, Netlify & Github Pages) | 13-Sep | * Perform Unit & Integration Testing. * Debug issues in frontend & backend. * Improve code remove irrelevant code. * Commenting where needed for maintainability. |
| 28-Aug | * Node.js & NPM * Setting up basic server with express. * Defining Routes & Handling Requests * Creating Middleware (Built-in / Custom) | **Week 6** | 16-Sep | * Final Improvements & changes. * Finalization of features. |
| 29-Aug | * RESTful APIs * Creating endpoints * Implementing CURD Operations * API Testing using Postman/Insomnia | 17-Sep | * Deployment of Project * (vercel, netlify & git-hub pages). |
| 30-Aug | * MongoDB Basics * Setting up MongoDB & Mongoose * Basic CURD Operations with Mongoose * Schema Design & Models | 18-Sep | * Ensure All features & functionalities work correctly in production. |