Instructure Name :-**Prasanna Raj Karki**

Full Stack Development MERN

Objectives

S.N	Time	Title	Content
1	2 Hours	Pre-programming foundation	• Computer Science Fundamentals • Problem Solving • Programming Logic and Techniques
2	6 Hours	Basic JavaScript Programming	• Introduction • Variable • Data Types • Date • Math • Conditions • Function • Events • Arrays and Object • Loop • DOM and DOM Manipulation • BOM • JSON
3	4 Hours	ECMA Script	• Let • Const • Map • Reduce • Filter • Arrow function • Template Literals

4	7 Hours	Object Oriented JavaScript	• Class
			• Encapsulation
			• Abstraction
			• Reusability/inheritance
			• Polymorphism
			• Association
			• Aggregation
			• Composition
5	3 Hours	Async And Await	Callbacks

This course gives the learner a through knowledge of software development such as HTML, CSS, JavaScript, React Js, Mongo DB, Node.JS, Express.Js & REST API to build interactive web applications. This Course finishes by considering the integration of payment method and deployment of application to the cloud environment.

			• Asynchronous • Promises • Async/Await
6	6 Hours	Responsive Web Page	• HTML5 ▢ Heading,paragraph,list and table ▢ Img,video,audio and map ▢ form • CSS3 ▢ Color,margin,padding and font ▢ Background, display and opacity ▢ Position, Shadow and Box Sizing ▢ Flexbox ▢ Media query • Bootstrap
7	8 Hours	React Js (Redux, Axios and React Router)	• Components • Virtual DOM • Class and Functional Components • JSX • Props • Conditional Rendering • State Management • Lifecycle Methods • Npm • Event handling • Form handling • Hooks • React router • Server Side Rendering • Redux • Context API • Next Js(framework) • Integrating with other libraries • Connect with API • The Flux Architecture • Provider API • Dispatch Methods • Axios and its usage with REST API

			• Aggregation and Replication
			• Indexing and Advance Indexing
			• Mongoose for Node Js
9	8 Hours	Node Js	• Simple Server
			• Understanding the flow of Request
			• Response Types –HTML,JSON
			• Routing
			• Express Introduction
			• Make a Call from frontend to Server
			• Node Core(Callbacks and Error Handling)
			• Understanding Node Modules
			• Exports and Require
			• Events and Events Emitter
10	10 Hours	API Development with Express	• Server
			• API Routes
			• Model
			• Controller
			• Middleware
			• JWT Authentication
			• Authorization
			• Request and Body Validation
			• Implementing JWT
			• Custom Auth Middleware and JWT Verify
			• Cookie
			• Nodemailer to send email
			• Express Validators
			• Relationship two or more Models
			• Mongoose
			• File upload using multer or any package
			• Test API with Postman

			• Understanding CORS
11		Project Assignment	Ecommerce Application
8	6 Hours	Mongo DB (working with NoSQL)	• Introduction to NoSQL • Create and Drop Database • Create and Drop Collection • Data Types • Insert Document • Query Document • Update and Delete Document • Projection, Sorting and Limiting • Relationships

			• Food Delivery Application
			• Entertainment Application
			• Timeline Discussion
			• Weekly Progress Discussion