BITBYTE

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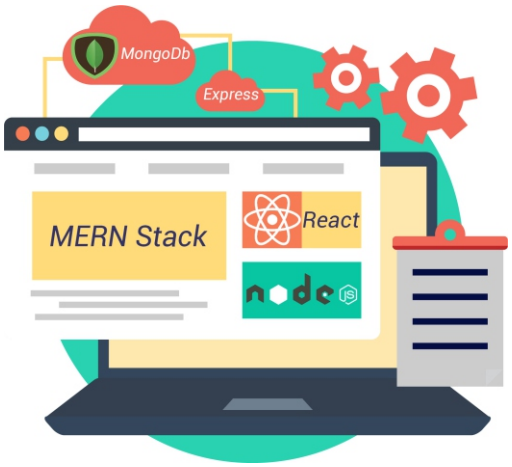
ROBOTRONIX ENGINEERING TECH PVT. LTD.

M E R N STACK

THE MERN STACK

MERN Stack Consists of Four Technologies.



M - MongoDB
E - Express
R - React
N - Node

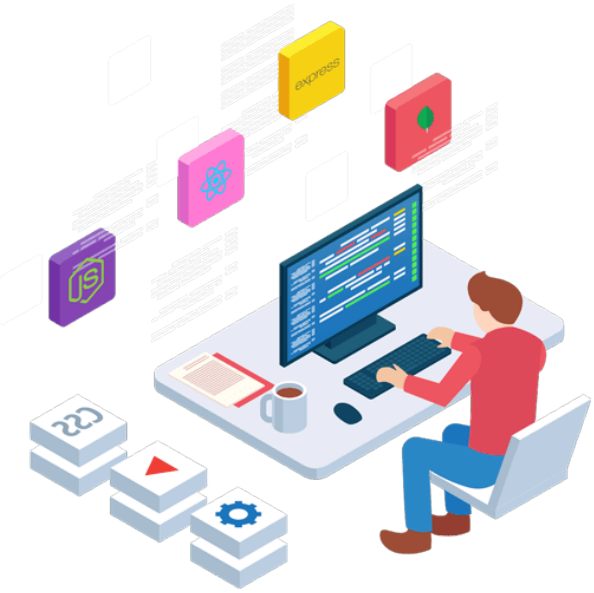
All these technologies are built on JavaScript.

MongoDB:-

- Introduction
- Overview
- why MongoDB & Advantages
- Environment Setup
- Data Modeling
- Create Database
- Drop Database
- Create Collection
- Drop Collection
- Data Types
- Query
  - Insert Document
  - Query Document
  - Update Document
  - Delete Document
- Projection
- Limiting Records
- Sorting Records
- Indexing
- Aggregation
- Replication
- Sharding
- Create Backup
- Deployment

EXPRESS JS : -

- Introduction
- Environment Setup & Installation
- ExpressJs - Hello World Program
- ExpressJs Request
- ExpressJs Response
- ExpressJs HTTP Methods
  ExpressJs Get
  ExpressJs Post
- ExpressJs Routing
- ExpressJs URL Building
- ExpressJs Cookies
- ExpressJs Session
- ExpressJs File Upload
- ExpressJs MiddleWare
- ExpressJS FormData
- ExpressJS DataBase
- ExpressJs Template



REACT JS :-

- React JS Prerequisites
- Introduction
  Introduction
  Features
  Benefits
- Angular Vs React JS
- Environment SetUp
- Installation
  Using Create-react-app
  Using npm
- Architecture
  work flow of React Application
  Architecture Of the React App

- Creating React App
  Using CDN
  Using Command Line
  Files & Folder Structure
  Source Code
  Customize First React App
  First "Hello, World" Program In React
  Run The Application
- React JSX
  Expression
  Function
  Attributes
  Expression In Attributes
- React Fragment
- React Component
  What is component
  Types Of components
  Functional Component
  Class Components
- React Styling
  Inline Styling
  CSS Modules
- React Props (Properties)
  Creating a component using properties
  Nested components
  Use components
  Passing Data to Compnent using Props
  Validate Props using PropTypes
  Supplying Default values to props using defaultProps
- React - State Management
  What Is states & significance
  Stateless Component
  State Management using React Hooks
  Create A statefull Component
  Component Life Cycle

- React Hooks
  What is Hook ?
  UseState
  UseEffect
  UseContext
  UseRef
  UseReducer
  UseCallBack
  UseMemo
  Custom Hooks

- React Rendring Lists
  Using react key prop
  Using map function to iterate on arrays to generste elements
- Event Handling in React
- React Routing
  Install React Router
  Understand routing in SPA
  Working with browserRouter
  Configuring route with rout component
  Making routes dynamic using route params
  Working with Nested Routing
  Creating Navigation
  Navigation to pages using Link & NavLink Components
  Redirect routes using Redirect Component
- React - HTTP Client Programming
  Fetch() API
  Teasting API with POSTMAN
- React - Working with forms
  Controlled Component
  Uncontrolled Component
- React Exercies

Node JS :-

- Introduction
  What is NodeJS
  Why NodeJs
- Installation
- Node in-built packages (buffer, fs, http, os, path, util, url)
- Nodejs Modules
- Import your own package
- Node Package Manager (NPM)
  What is NPM
  Installing Packages Locally
  Installing Package Globally
- Web Server
  Creating Web Server
  Handling HTTP Requests
  Sending Requests
- File System
  Fs.readFile
  Writing a File
  Opening a file
  Deleting a file
- Debugging NodeJs Application
  Core NodeJS Debugger
- Events
  Event Emitter Class
  Returning event emitter
  Inheriting Events
- NodeJs Query String Method

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