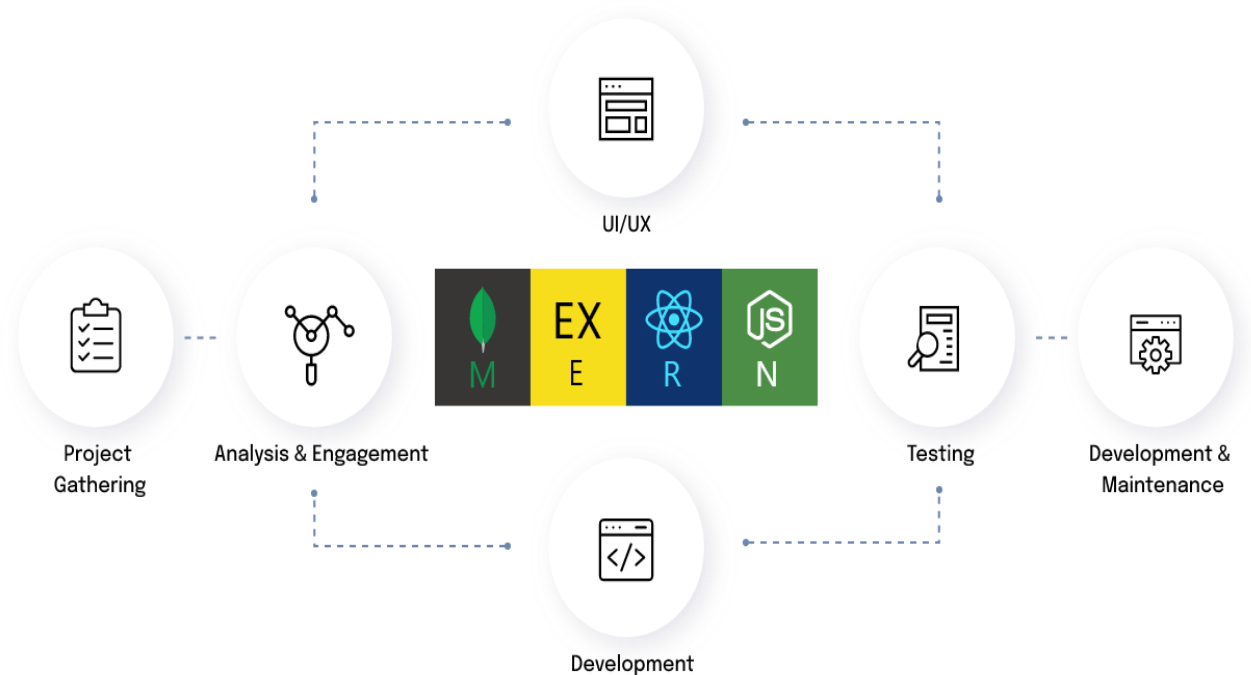




# MERN FULL STACK



# Static Website Design

## Software Development Fundamentals

- Importance Of Frontend
- Fundamentals
  - Syntax
  - Debugging
  - Tweaking Code

## HTML Basics

- Getting Started
- HTML Elements
- HTML Headings
- HTML Paragraphs
- HTML Buttons
- HTML Attributes
- HTML Hyperlinks
- HTML Containers
- HTML Lists

## CSS Basics

- CSS Rulesets
- CSS Properties
- CSS Colors
- CSS Units
- CSS Box Models
  - CSS Margins
  - CSS Paddings
  - CSS Borders

## Bootstrap Components

- Carousel
- Embedding Videos

## CSS Layouting

- CSS Flexbox
  - Display
  - Flex-direction
  - Justify-content
  - Align-items
  - Flex-items
  - Flex-flow
  - align-content
  - align-self

- flex-grow
- flex-shrink
- order
- Sizing Elements
- Overflow
- Box Sizing
  - Content Box
  - Border Box

## **CSS Media Queries**

- Media Query
- Media Types
- Media Features
  - Width, min-width, max-width
  - Height, min-height, max-height
  - Orientation
- Combining Multiple Media Features in a single Query.
  - Logical Operators (and)
  - Logical Operators (not)
  - Logical Operators (,)

# Dynamic Web Applications

## Introduction to JavaScript

- Data Types
- Variables
- Basic Operators
- Conditionals
- Loops
- Functions
- Arrays
- Objects
- Control Flow
- Comments
- Math Functions

## DOM Manipulation

- The JavaScript Console
- Introduction to the DOM
- Defining the DOM
- Select and Manipulate

- Important Selector Methods
- Manipulating Style
- Manipulating Text and Content
- Manipulating Attributes
- Local Storage

## Forms

- The form element
- The label element
- The input element
- The option element
- The opt group element
- The button element
- The select element
- The text area element
- Form Validations and input validations

## Array Methods

- Adding & Removing Elements
  - Push
  - Unshift
  - Splice
  - Pop
  - Shift

- Finding Elements
  - Find
  - IndexOf
- Contact

## Events, Fetch & Callbacks

- How to add Event Listeners
- Callbacks
- Schedulers
  - Set Timeout
  - Clear Timeout
  - Set Interval
  - Clear Interval
- Hypertext Transfer Protocol (HTTP)
  - HTTP Requests using Fetch
  - HTTP Responses
  - Working with JSON data

# Intermediate JavaScript

## Rest Parameters and Spread Syntax

- Destructuring Arrays
- Destructuring Objects

## More Objects

- Constructor Functions
- Constructor Method
- Factory Functions
- New Keyword

## this

- this in methods
- this in function declarations
- window scope
- this in events



## Prototype & ES6 Classes

- Built-in Constructor Functions
- Inheritance
- Constructor Property
- this in classes

## Asynchronous JS

- Async/Await
- Promises

## Scope & Hoisting in JavaScript

### Array Methods

- map
- filter
- reduce

### String Manipulations

- Trim & split Methods
- toUpperCase & toLowerCase Methods
- includes Method

# React JS – Getting Started

## Introduction to React JS

- Why React?
- Stateful + Stateless Components
- Hello World
- Introducing JSX
- Rendering Elements
- Components & Props
- State & Lifestyle
- Handling Events
- Conditional Rendering
- Lists & Keys
- Forms
- Composition vs Inheritance
- Thinking In React

## CSS in JS

- Styled Components
- Emotion

## Routing

- Query Parameters
- Path Parameters

## Authentication and Authorization

# React JS Hooks

## Introduction to Hooks

- Introducing Hooks
- useState
- useEffect
- useContext
- Hooks with Local Storage
- Hooks with React Router
- Data fetching using Hooks
- Writing Custom Hooks

# Relational and Non Relational Databases

## Relational Databases

- Introduction
- SQL
- Aggregation, Relationships, Join
- Normalisation & Advanced SQL Querying
- ACID Properties

## Non Relational Databases (MongoDB)

- Introduction to MongoDB
- CRUD Operations
- Querying Documents
- Aggregations
- Nested Documents

# Backend Development with Node and Express

## Introduction to NodeJS

- Node REPL
- Modules
- NPM CLI
  - Usage of NPM Packages

## Introduction to Express Web Application Framework

- HTTP Server
- Routers
- Handling HTTP Request
- Preparing Http Response

## Fundamentals of Application Building in Express

- Integration with Database
- CRUD Operations
- Error Handling
- Middlewares

## Securing APIs

- Json Web Token(JWT)
- Authentication vs Authorization
- Building Secure Web API`s with Express

## Debugging

- Node inspect
- Visual Debugging