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| **THE WEB**  **Development**  **COURSE**    SIMPLE LESSON AND ACTIVITIES  TO LEARN WEB DEVELOPMENT  IN 90 DAYS.  **Course Instructor**  Zeeshan Ali |

**Course Road Map**

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| **Week** | **Day** | **Content** |

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| 1 | 1 | **WEB DEVELOPMENT**   * Introduction to Web Development * What is Web Development? * Why learn Web Development?   **Course Faces**   * **Phase |**   + **Learn Web Development Technologies**     - Html, Html5     - CSS, CSS3     - Bootstrap 5     - JavaScript (Basic & Advance) * **Phase ||**   + **Learn Backend Development Technologies**     - Node Js     - Express Js (Node Js Framework)     - Mongo DB (Database) * **Phase |||**   + **Design and Develop Full Stack Web Application** * **IDE Installation For Web Development**   + Visual Studio Code   **HTML**   * Fundamentals of HTML * Html Head * Heading and Paragraphs * Html elements and Attributes   **Task (Define on daily basis)** |
| 2 | **HTML**   * Basic Html Tags * Comments * Formatting and Styles * Hyperlinks, Images, Favicon * Block Level and Inline Elements * Tables and Lists   **Task** |
| 3 | **HTML**   * Html Layout * Semantic & Non- Semantic Elements * Html Forms   + Elements   + Attributes   + Input Types   **Task** |
| 4 | **HTML**   * Html Audio Video * File Paths * Html Layout Techniques * Iframes * Embed Google Maps   **Task** |
| 5 | **CSS (basic)**   * What is css * Why We Use Css * Style types * Syntax * Colors * Backgrounds * Height/width * Paddign & margins * Text and fonts   **Task** |

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| 2 | 1 | **CSS (basic)**     * Outline * Links & lists * Min/max width & height * Borders * Shadows * Word wrap * Float * Background image & gradients   **Task** |
| 2 | **CSS (Advance)**   * Styling form Elements * Pseudo classes and Elements * Positions   + Relative   + Absolute   + Fixed   + Sticky * Z-index * Opacity * Selectors * Math Functions   **Task** |
| 3 | **CSS (Advance)**   * Variables * Transitions * Transforms   + Translate   + Skew   + Rotate   + Scale * Animations & keyframes   **Task** |
| 4 | **CSS (Advance)**   * Clip paths * Pointer events & cursors * Filters * Masking * Combinators * Zoom   **Task** |
| 5 | **CSS (Advance)**   * Flex Box * Grid System * Media Queries   **Task** |

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| 3 | 1 | **Bootstrap**   * What is bootstrap * Why we use bootstrap * Installation & Setup * Containers * Basic grid System * Colors * Buttons * Badges * Alerts * Typography   **Task** |
| 2 | **Bootstrap**   * Tables * Images * Progress Bars * Spinners & Tooltips * Navbar * Dropdown * Lists and buttons Groups   **Task** |
| 3 | **Bootstrap**   * Cards * Modals * Forms * Form inputs and select * Input Groups |
| 4 | **Bootstrap**   * Grid System   + XS   + SM   + MD   + LG   + XL   + XXL * Customize Bootstrap   **Task** |
| 5 | Design A Webpage with Bootstrap |

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| 4 | 1 | **JavaScript (Basics)**   * Introduction   + What is JavaScript   + Why we use JavaScript   + How to start writing JavaScript in web page   + Browser console for JavaScript * **Programming Fundaments in Js**   + What is a program statement?   + Comments   + Variables   + Operators   + If-else and nested if-else statement   + Switch   + Loops in js     - For loop     - While loop     - Do while loop     - For in loop     - For of loop   + Break and continue statements   **Task** |
| 2 | **JavaScript (Basics)**   * **Programming Fundaments in Js**   + Functions (built-in & user defined)     - Simple functions     - With parameters     - With return value   + 1D Arrays   + Typeof keyword   + Type conversion with Number function   + Error Handling * Alert Boxes * Global and local variables   **Task** |
| 3 | **JavaScript (Basics)**   * Numbers * Strings with built-in functions * Js Date * Js Math * Js Random   **Task** |
| 4 | **JavaScript (Basics)**   * **JS Document Object Model (DOM)**   + What is Dom   + Documents   + Dom Tree   + DOM methods   + DOM Elements Selectors   + DOM with Html   + Forms handling   + Dom Events   + CSS Styles with DOM   **Task** |
| 5 | **JavaScript (Basics)**   * **Browser Object Model (BOM)**   + What is BOM   + Browser Window   + History   + Browser Screen   + Local storage   + Session Storage   + Js Timing Functions   **Task** |

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| 5 | 1 | **JavaScript (Advance)**   * **Objects**   + What are objects   + Objects in JavaScript   + Properties and methods   + This keyword   + For in loop for objects   + Object Destructuring * **What is JSON** * Difference between Js Object and JSON object * Json Methods   **Task** |
| 2 | **JavaScript (Advance)**   * Let & Const Variables * Template Literals * Object Literals * Arrow Functions * Rest & Spread Operator * Strict Mode   **Task** |
| 3 | **JavaScript (Advance)**   * Hoisting * Closures * Callbacks * Synchronous and Asynchronous * Promises * Async/Await * Js Fetch   **Task** |
| 4 | **JavaScript (Advance)**     * What are API’s * Calling 3rd Party API’s with JS Fetch   + Products API   + Geo Location API   + Jokes API   + Numbers Facts API   **Task** |
| 5 | **Recap**   * Recap JavaScript from Basics to Advance |

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| 6 | 1 | **Node Js**   * Introduction to Node js * Node Js Installation * Node Js Process Model * Node.js Console * Callback functions in Node * Built-in Global Variables * Custom Modules * Import and Export Modules   **Task** |
| 2 | **Node Js**   * **Node Built-in Modules (basic)**   + FS module   + Path module   + Os module   + Http module   + Query module |
| 3 | **Node Js**   * **Node Builtin Modules (advance)**   + Crypto module   + Events module   + Dns module   + Buffer   + Streaming and Piping * Node package manager   **Task** |
| 4 | **Node Js**   * Node Web Server * Request and Response * Use external modules with npm * Introduction to node framework   **Task** |
| 5 | **Express Js**   * What is express Js * Create an express app * Run express Server * Http methods * Request and Response in express   **Task** |

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| 7 | 1 | **Express Js**   * Request   + baseUrl   + body   + cookies   + hostname   + ip   + params   + path   + protocol   + query   + route * Response   + end   + send   + status   + sendStatus   + json   + sendFile   + type   + cookie   + clearCookei   + download   **Task** |
| 2 | **Express Js**   * Express App Methods * Express Router * Express Middleware’s   + What are Middleware’s   + Application level   + Router level   + Error handling   + Built-in   + Third-Party   **Task** |
| 3 | **Express Js**   * Express App Folder Structure * Template Engine (ejs) * Serving Static Files in Express * File upload in Express   **Task** |
| 4 | **Mongo DB**   * Introduction to Mongo DB * Difference between SQL and NoSQL Database * Installation of Mongo DB * Run Mongo DB on CLI * Data Types in Mongo DB * Create & Drop Databases and Collections   **Task** |

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|  | 5 | **Mongo DB**   * **CURD**   + Insert documents   + Insert Multiple documents at once   + Read documents   + Update documents   + Delete documents * Operators * Search Limit and Sort documents * Relations in Mongo DB   **Task** |

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| 8 | 1 | **Node + Express + Mongo Db Rest API’s**   * What are Rest API’s * Folder Structure for Login Signup API’s * Create the express app * Configure MongoDB with Express * Installing Required NPM packages   + BCrypt for password Encryption   + JWT for user Authentication and Authorization   + Express-cookie   + Body-parser   **Task** |
| 2 | **Node + Express + Mongo Db Rest API’s**   * Basics to MVC model * Create Model for User * Create Routes for Login, Register and Reset Password * Implementing the user registration API * Test API   **Task** |
| 3 | **Node + Express + Mongo Db Rest API’s**   * Implement login and forgot password API * JWT middleware for user authentication * Protected Routes * Test API’s   **Task** |
| 4 | **Recap Html, CSS, Bootstrap, JavaScript, Node Js, Express Js, Mongo DB** |
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| 9 | 1 | Full Stack Web Application Project |
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