

**Topic:**

Full Stack and Web Development (Level-1)

**About the course:**

This course provides a comprehensive introduction to **Full Stack Web Development**, covering the essential technologies and concepts required to design and develop modern web applications. The course begins with web fundamentals and introduces **HTML5** for creating structured and semantic web pages, including forms and essential page elements. Learners will explore **CSS3** concepts such as the box model, Flexbox, Grid, and responsive design to create visually appealing and device-friendly interfaces. The course further develops programming skills through **JavaScript**, covering variables, functions, loops, conditionals, DOM manipulation, events, and ES6+ features such as let/const, arrow functions, and array methods. The course also introduces **Git and GitHub** for version control and collaborative development, along with the fundamentals of how frontend applications communicate with backend systems. Through hands-on exercises learners will gain practical experience in building and managing basic web applications and develop a strong foundation for progressing toward full-stack application development.

**Duration -**

30 hours

**Total Days required:**

Day 1 (1 hr session) + 7 Days (2 hrs/day)

**Course Faculty:**

Dr. Merlin George



**Weekly plan for topic coverage:**

Basic Track — Day 1 (1 hr session) + 7 Days (2 hrs/day)

| Day   | Topics Covered                                                                      | Outcome                                         |
|-------|-------------------------------------------------------------------------------------|-------------------------------------------------|
| Day 1 | Web fundamentals – how the web works                                                | Build a static webpage                          |
| Day 2 | HTML5 (structure, forms, semantic tags)                                             | Build a static webpage                          |
| Day 3 | CSS3 – box model, Flexbox, Grid, responsive design basics                           | Style a responsive page                         |
| Day 4 | CSS3 – Grid, responsive design basics                                               | Style a responsive page                         |
| Day 5 | JavaScript fundamentals – variables, functions, loops, conditionals                 | Add interactivity to a page                     |
| Day 6 | DOM manipulation, events, ES6+                                                      | Build a small interactive app (e.g. to-do list) |
| Day 7 | basics (let/const, arrow functions, array methods)                                  | Build a small interactive app (e.g. to-do list) |
| Day 8 | Git & GitHub basics, intro to how frontend talks to a backend, wrap-up mini project | Push first project to GitHub                    |

**Total no of assignments in plan:**

2

**Final Evaluation Plan :** practical/ Lab Exam- online