ACE-SPED INNOVATION, VOCATIONAL & ENTREPRENEURSHIP TRAINING (IVET-HUB)

FRONTEND WEB DEVELOPMENT

INTRODUCTION

Frontend Website Development refers to the process of building the visual and interactive parts of a website the areas users see and interact with directly. It involves creating layouts, designing user-friendly interfaces, and writing code that brings web pages to life using technologies such as HTML, CSS, and JavaScript.

This training program is designed to equip learners with the essential skills needed to build modern, responsive, and visually appealing websites. Whether for personal projects, business needs, or a professional career, this training provides a practical foundation for beginners and aspiring developers. By combining theory with hands-on coding exercises, the program ensures that learners gain the confidence and competence required to step into the world of web development.

TRAINING OBJECTIVES

By the end of the program, participants will be able to:

1. Technical Competence

- Understand how websites work (browsers, servers, hosting, and the web ecosystem).

- Apply HTML to structure web pages effectively.

- Use CSS to style and layout responsive web interfaces.

- Use JavaScript to create dynamic, interactive website features.

- Apply best practices in accessibility, mobile-first design, and performance.

- Use Git and GitHub for version control and collaboration.

- Build and deploy functional websites or web applications.

2. **Practical Problem-Solving**

- Translate design mockups into functioning web pages.

- Debug and troubleshoot common frontend issues.

- Consume APIs and integrate dynamic content.

3. **Professional Readiness**

- Organize a portfolio of completed web projects.

- Demonstrate teamwork using Git workflows.

- Communicate design and coding decisions effectively.

TARGET AUDIENCE

This training is ideal for:

1. **Beginners & Aspiring Developers:** Individuals with little or no coding experience who want to start a tech career.

2. **Students & Graduates:** Secondary school leavers, undergraduates, or graduates interested in web development.

3. **Professionals Seeking Career Change:** People transitioning into technology or looking to upgrade their digital skills.

4. **Entrepreneurs & Business Owners:** Those who want to build or manage their own websites without relying heavily on developers.

5. **Designers & Creatives:** UI/UX designers, graphic designers, or content creators who want to understand how designs are translated into code.

TRAINING METHODOLOGY

The training follows a hands-on, practical, and learner-centered approach:

1. Instructor-Led Lectures

- Clear explanations of key concepts, tools, and technologies.
- Step-by-step demonstrations of coding techniques.

2. Practical Coding Sessions

- Students code alongside the instructor.
- Daily or weekly assignments to reinforce learning.
- Real-life examples and mini-projects for each module.

3. Project-Based Learning

- Learners build multiple real-world projects such as:

  - Landing pages

  - Personal portfolio websites

  - Interactive JavaScript applications

- A final capstone project to showcase acquired skills.

4. Collaborative Learning

- Pair programming sessions.

- Git-based collaboration for team exercises.

5. Assessments & Feedback

- Quizzes, coding challenges, and periodic evaluations.

- One-on-one guidance and continuous feedback from instructors.

6. Deployment & Portfolio Development

- Teaching learners how to deploy websites online.

- Helping them create a professional portfolio for job readiness.

TRAINING MODULES

Module 1: Introduction to the Web & Frontend Development

- How the web works (client–server)
- Browsers, rendering, developer tools
- Website lifecycle (design → code → hosting)

Module 2: HTML (Structure of Web Pages)

- Basic tags, elements & attributes
- Forms, tables, semantic HTML
- Accessibility (A11y) basics
- SEO fundamentals

Module 3: CSS (Styling & Layout)

- CSS syntax & selectors
- Box model, positioning
- Responsive design
- Flexbox & Grid
- Media queries
- CSS variables
- CSS animations & transitions

Module 4: JavaScript (Programming for the Web)

- Variables, data types, operators
- Functions & scope
- Arrays, objects

- DOM manipulation

- Events & event listeners

- Fetch API & AJAX

- ES6+ features (let/const, arrow functions, promises)

Module 5: Version Control with Git & GitHub

- Git basics (commit, branch, merge)

- GitHub workflow (pull requests)

- Collaboration skills

Module 6: Frontend Frameworks (React.js)

- Components

- Props & state

- Hooks (useState, useEffect)

- Routing

- State management

- Best practices

Module 7: Tooling & Optimization

- npm & package management

- Build tools (Vite, Webpack)

- Code optimization

- Performance & accessibility testing

Module 10: Deployment & Hosting

- GitHub Pages

- Netlify

- Vercel

- Basic DNS, domains & hosting

Module 11: Capstone Projects & Portfolio Development

- Build 3–5 real-world projects:

  - Portfolio website

  - Landing page

  - React app (e-commerce, dashboard, blog, etc.)

- Resume & GitHub profile optimization

- Interview preparation