



# Tech-Trail Program

Full Stack  
Web Development  
Track

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# COURSE OVERVIEW

The Full Stack Web Development Track is a comprehensive, 6-month instructor-led program designed to equip participants with the technical expertise and hands-on experience needed to excel as web developers.

This program integrates essential skills in product design, front-end development, and back-end development, ensuring participants are well-prepared to take up jobs in the industry as soon as they complete the program. Through practical projects, mentorship, and exposure to industry-standard tools, participants will develop the skills to build fully functional and user-friendly digital solutions for websites and mobile applications.





# Course Objectives

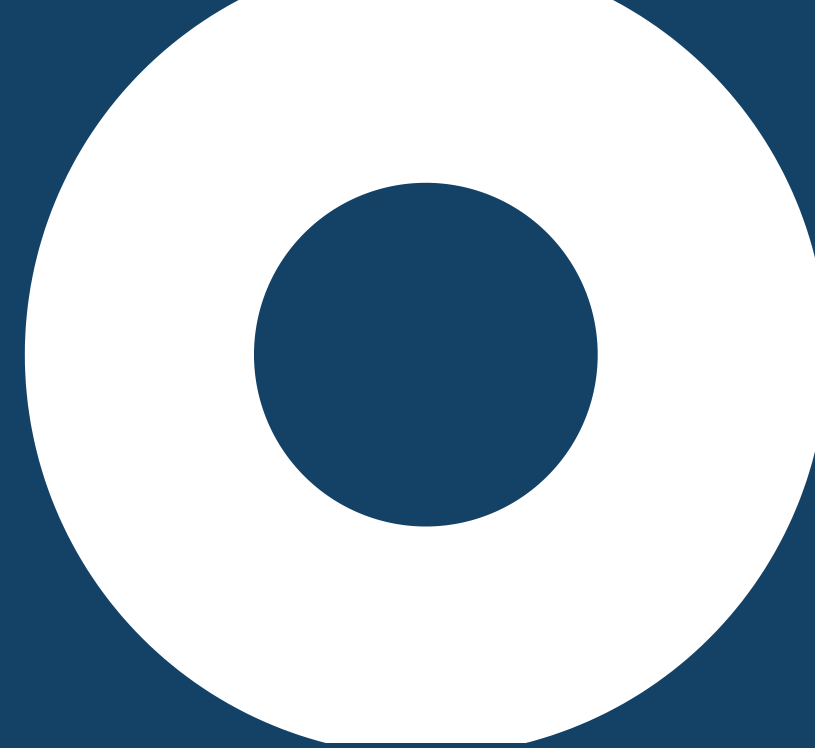
- 1** Equip participants with the technical expertise to design, develop, and deploy websites and web applications.
- 2** Teach the fundamentals of product design to create intuitive and user-friendly interfaces.
- 3** Provide in-depth training on modern front-end technologies like HTML, CSS, JavaScript, and React.js and instill best practices in version control, deployment, and debugging.
- 4** Develop back-end programming skills using Node.js, Express.js, and database management tools like MongoDB.
- 5** Prepare participants for roles like Full Stack Developer, Front-End Developer, or Back-End Developer.



# Course

# Prerequisites

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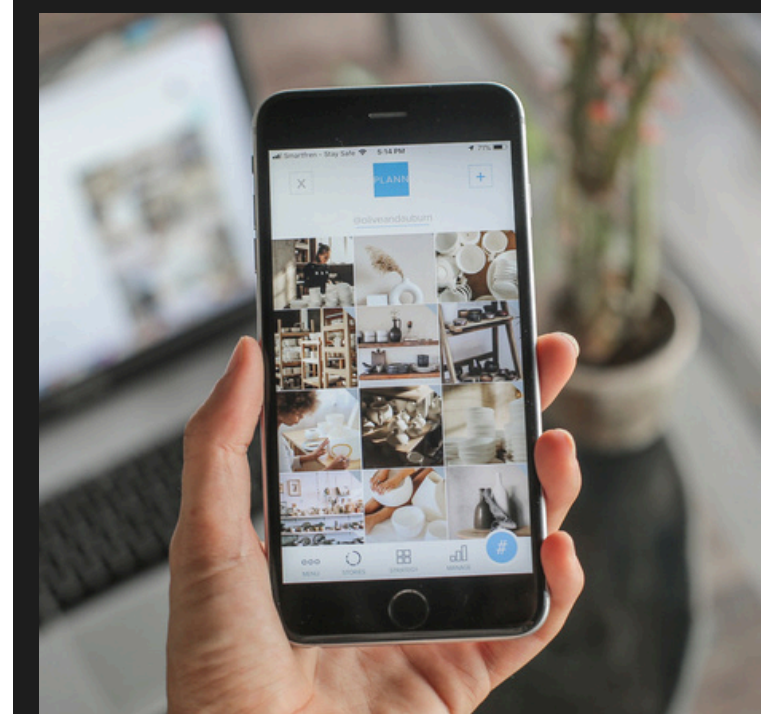
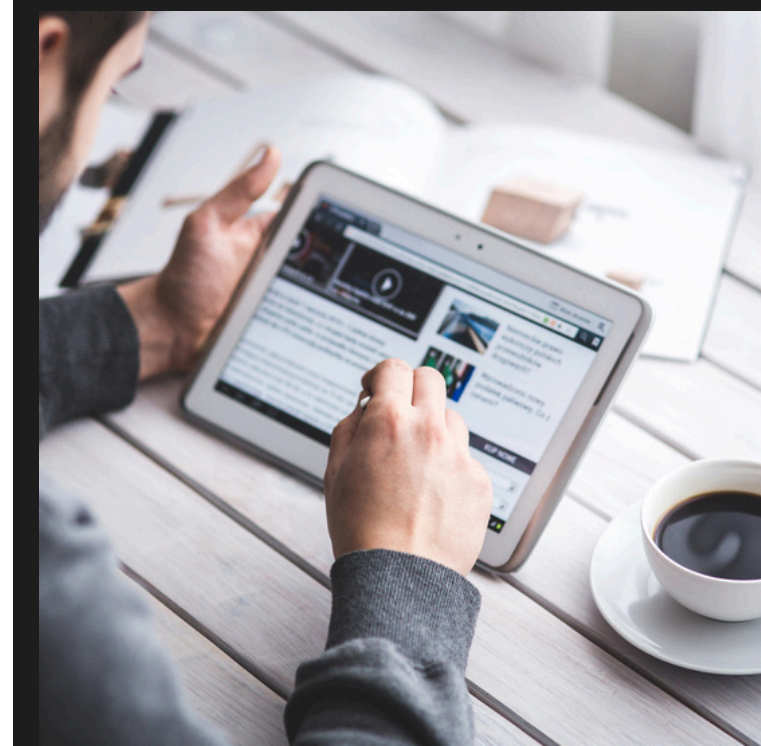
01 Basic computer literacy and familiarity with operating systems like windows

02 Access to a laptop/PC with a minimum of 8GB RAM (16GB recommended).

03 No prior coding skills is required.

04 A strong interest in web development and a passion for learning





## KEY FEATURES

- ✓ Globally Recognized Certificate
- ✓ Extensive practical exercises with industry-standard tools.
- ✓ Lifetime Access to recorded sessions & study materials
- ✓ Direct access to industry professionals for mentorship.
- ✓ Weekday and weekend class options.



# Course Modules

**WEBSITE**

*design*

*content*

*marketing*

**SEO**



**MONTH 1**

# **Introduction to Full Stack Web Development**





## Week 1-2

### Introduction to Web Development

- Overview of Full Stack Development.
- Introduction to the Web (HTTP, DNS, Browsers).
- Setting up Development Environment (VS Code, Git, Node.js, terminal commands).
- Understanding Client-Server Architecture.
- Introduction to Version Control with Git and GitHub.

### Practical Exercises

- Set up a GitHub repository and commit initial files.
- Create a basic HTML webpage and deploy it on GitHub Pages.

## Week 3-4

### Product Design Basics

- UI/UX Design Principles: Importance of user-centric design.
- Tools: Figma and Adobe XD for prototyping and wireframing.
- Design Thinking Process: Ideation to prototype.
- Collaborative Design: Working with designers and stakeholders.

### Practical Exercises

- Create a basic wireframe and prototype using Figma for a personal portfolio website.

### Mini Project for Month 1

- Design a landing page layout for a small business website.

**MONTH 2**

# **Front End Development Fundamentals**



## Week 5-6

### HTML & CSS Basics

- Semantic HTML and Accessibility.
- Responsive Design (Media Queries, Flexbox, Grid Layout).
- Styling with CSS: Colors, Fonts, Box Model.

#### Practical Exercises

- Build a personal portfolio website with HTML and CSS.
- Create a responsive layout for a blog page using Flexbox and Grid.

## Week 7-8

### Advanced CSS and JavaScript Basics

- CSS Frameworks: Introduction to Bootstrap.
- JavaScript Basics: Variables, Functions, Loops, DOM Manipulation.
- Working with APIs: Fetching data using AJAX and APIs.

#### Practical Exercises

- Create an interactive webpage with JavaScript and APIs.

#### Mini Project:

- Build a multi-page static website for an online portfolio.



**MONTH 3**

**Advanced Front-  
End Development  
(Frameworks and  
Libraries)**



## Week 9-10

### JavaScript and React.js Basics

- Introduction to Bootstrap for Responsive Design
- Modern JavaScript (ES6+ Features): Arrow Functions, Classes, Promises.
- Introduction to React.js: Components, Props, and State.
- Building a Single Page Application (SPA).

#### Practical Exercise

- Build a responsive landing page using Bootstrap.
- Create a simple React.js app (e.g., a to-do list with add/remove features).
- Debug and optimize JavaScript code for performance.

## Week 11-12

### Advanced React.js

- React Router: Managing multiple pages in React.
- State Management with Redux.
- Integrating APIs with React.

#### Practical Exercises

- Build a React-based dashboard application.

#### Mini Project:

- Build a dynamic weather application using React.js and a third-party API.



**MONTH 4**

# **Back End Development Basics**





## Week 13-14

### Node.js and Express.js

- Introduction to Node.js: Basics and Event-driven Architecture.
- Express.js: Setting up Servers, Routing, and Middleware.
- RESTful API Development.

#### **Practical Exercise:**

- Set up a basic Node.js server to serve static files.
- Create RESTful APIs using Express.js..

## Week 15-16

### Database Management and Security Basics

- MongoDB: Introduction to NoSQL Databases, CRUD Operations.
- Database Modeling and Relationships.
- Authentication: Implementing user login/signup functionality.
- Security Basics: Encrypting passwords and securing APIs.

#### **Practical Exercise**

- Perform CRUD operations with MongoDB.

#### **Mini Project**

- Build a RESTful API for a simple e-commerce platform.

**MONTH 5**

**Advanced Front-  
End Development  
(Frameworks and  
Libraries)**





## Week 17-18

### Full Stack Integration

- Combining Front-End and Back-End: Fetching and displaying API data in React.
- Deployment Basics: Hosting apps on Heroku and Netlify.
- Debugging: Identifying and fixing bugs in full-stack applications.

#### Practical Exercise

- Build a front-end blogging React app that connects to a Node.js back-end API.

## Week 19-20

### Advanced JavaScript and Performance Optimization

- Asynchronous Programming: Promises, Async/Await.
- Advanced React Patterns and Optimization Techniques.
- Improving application performance: Caching, Lazy Loading.

#### Practical Exercise

- Optimize the blogging app for speed and responsiveness.

#### Mini Project:

- Build a blog application with user authentication and CRUD functionalities.

**MONTH 6**

**Capstone Project  
& Career  
Preparation**





## Week 21-22

### Capstone Project Development

- End-to-End Application Development: Idea to Deployment.
- Focus on UX, functionality, and performance.
- Regular feedback sessions with mentors.

## Week 23-24

### Career Preparation & Final Presentation

- Resume Building: Highlighting Full Stack Skills.
- Portfolio Development: Showcase completed projects.
- Soft skills Training
- Mock Interviews and Industry Insights.
- Presentation Day: Capstone Project demo to peers and mentors.

**MONTH 3**

**Advanced  
Cybersecurity  
practices**





# GRADUATE STARTER KITS

**GRADUATES OF THE WEB DEVELOPMENT PROGRAM WILL BE EQUIPPED WITH THE FOLLOWING RESOURCES TO CONFIDENTLY LAUNCH THEIR CAREERS;**

- **PERSONALIZED CV AND LINKEDIN OPTIMIZATION FOR WEB DEVELOPERS**
- **PROFESSIONAL PORTFOLIO WITH AT LEAST THREE COMPLETED PROJECTS, INCLUDING A CAPSTONE PROJECT SHOWCASING FULL-STACK CAPABILITIES.**
- **ABBFEM ALUMNI MEMBERSHIP**
- **EXCLUSIVE ACCESS TO INTERNSHIP & FREELANCING OPPORTUNITIES**
- **A CERTIFICATE OF COMPETENCE IN WEB DEVELOPMENT**



# TRAINING DELIVERY





## Duration

6-Months (3 classes weekly) each class is  
4hours

## Learning Mode

- Virtual Classes Conducted on Zoom
- Physical Trainings conducted at any of our Training hubs located in the United Kingdom and Nigeria

## Class Schedule

Weekday Option - 10am-2pm daily  
Weekend Option ; Saturday - 10am- 3pm daily  
Sunday- 3pm -7pm daily

Sign up now to secure your spot and take the first step toward a rewarding tech career

## Contact details

Email: [training@abbfem.com](mailto:training@abbfem.com)

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## Abbfem Training Hubs

Nigeria: Eleganza House, 15b Joseph Harden Street, Marina, Lagos Island, Lagos state. Nigeria

**United Kingdom:** 350A Icentre, Howard Way, Newport Pagnell, MK16 9PY, United Kingdom

