TECHCURIOUS

WEB DEVELOPMENT CURRICULUM

CRINTEX SOLUTIONS

LAMP STACK

LINUX | APACHE | MYSQL | PHP

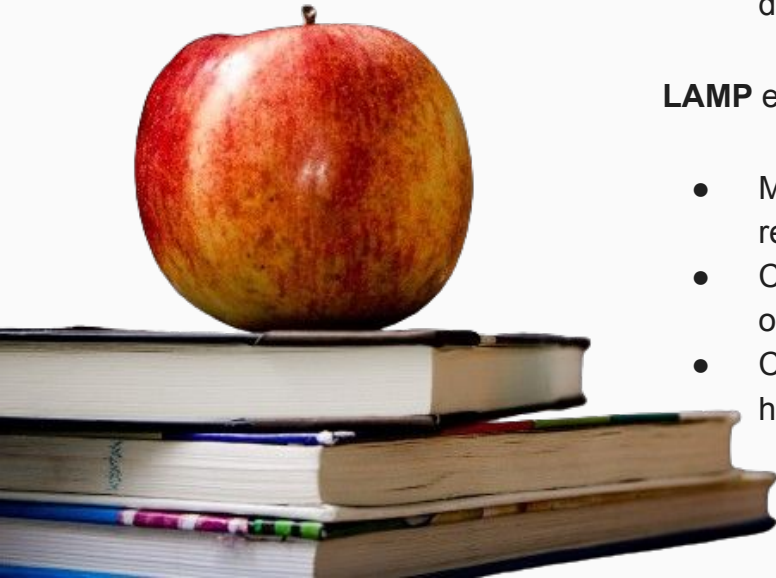crintexsolutions@gmail.com

PLEASE NOTE:

If the student is new to programming, there will be need for one to two month (Depending on speed of understanding) to learn DATA STRUCTURES AND ALGORITHM @ 50000 NGN per month

For decades, **LAMP** has been the workhorse of web development, powering countless websites and applications. Its components are time-tested and reliable:

- Linux, the open-source operating system, provides a stable and secure foundation.
- Apache, the web server, handles incoming requests and delivers content efficiently.
- MySQL, the relational database, stores and manages structured data with ease.
- PHP, the scripting language, powers the server-side logic and interacts with the database.

LAMP excels in:

- Maturity and stability: Its long history translates to extensive documentation, resources, and a vast pool of experienced developers.
- Cost-effectiveness: Open-source components make LAMP a budget-friendly option.
- Customization: LAMP offers fine-grained control over every layer, allowing for highly tailored applications.

Month 1: Introduction to Web Development and HTML/CSS	2 hours per class

50,000 NGN

Per

WEEK

Week	Class 1	Class 2
Week 1	Introduction to Web Development	Overview of Lamp Stack
Week 2	Client-side vs. Server-side	HTML Fundamentals: Structure
Week 3	HTML Fundamentals: Elements	Basic CSS: Selectors and Styling
Week 4	Basic CSS: Layout Techniques	Responsive Design and Media Queries

Month 2: Intermediate HTML/CSS and JavaScript	2 hours per class

50,000 NGN

Per

WEEK

Week	Class 1	Class 2
Week 5	Intermediate CSS: Flexbox, Grid	CSS Preprocessors (e.g., Sass)
Week 6	Media Queries and Responsive Design	Introduction to JavaScript
Week 7	JavaScript Basics: Variables, Types	JavaScript Functions and DOM
Week 8	DOM Manipulation and Event Handling	JavaScript: Control Structures

Month 3: PHP and MySQL	2 hours per class

75,000 NGN

Per

WEEK

Week	Class 1	Class 2
Week 9	Introduction to PHP Basics	PHP Variables and Control Structures
Week 10	PHP Forms and Data Handling	Introduction to MySQL
Week 11	MySQL Database Management	SQL Queries and CRUD Operations
Week 12	PHP and MySQL Integration	PHP Sessions and Cookies

Month 4: Dynamic Web Development and Projects	2 hours per class

75,000 NGN

Per

WEEK

Week	Class 1	Class 2
Week 13	User Authentication in PHP	Authorization and Security
Week 14	Project Planning and Design	Project Development: Implementation
Week 15	Project Development: Testing	Deployment Strategies and Hosting
Week 16	Project Presentation and Review	Final Review

MERN STACK

MONGO DB | EXPRESS JS | REACT JS | NODE JS

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Imagine building a website or web application where the front-end and back-end seamlessly blend, powered by a single programming language: JavaScript. That's the magic of the **MERN** stack!

MongoDB, a NoSQL database, acts as the flexible storage layer, storing data in JSON-like documents. Express.js, a Node.js framework, handles server-side logic and routing, while React.js, the popular JavaScript library, builds the dynamic and interactive user interface. Finally, Node.js itself serves as the runtime environment, allowing JavaScript to run outside the browser.

MERN is ideal for single-page applications (SPAs) and real-time web experiences. Its strengths:

- Modern and Versatile: Built on JavaScript, offering a unified codebase for front-end and back-end.
- Flexible and Scalable: MongoDB's schema-less structure and Node.js event-driven architecture adapt to changing needs.
- Rich Community and Resources: Boasting active communities for React and Node.js, providing ample support.

Month 1: Introduction to Web Development and MongoDB	**2 hours per class**

50,000 NGN

Per

WEEK

Week	Class 1	Class 2
Week 1	Introduction to Web Development	Overview of MERN Stack
Week 2	Client-side vs. Server-side	Introduction to MongoDB
Week 3	MongoDB: Basics and Data Modeling	MongoDB Queries and CRUD Operations
Week 4	MongoDB Aggregation Framework	Building RESTful APIs with Express

Month 2: Backend Development with Node.js & Express.js	2 hours per class

	Week	Class 1	Class 2
50,000 NGN Per WEEK	Week 5	Introduction to Node.js	Node.js Modules and NPM
	Week 6	Node.js Events and Streams	Express.js Basics and Routing
	Week 7	Middleware in Express.js	Error Handling and Debugging in Node
	Week 8	Building APIs with Express.js	Authentication with JWT

Month 3: Frontend Development with React		**2 hours per class**

50,000 NGN

Per

WEEK

Week	Class 1	Class 2
Week 9	Introduction to React	React Components and JSX
Week 10	State and Props in React	React Forms and Handling Events
Week 11	React Router and Navigation	Managing State with Context API
Week 12	Redux Fundamentals	Redux Actions and Reducers

| | Month 4: Advanced React and Full-stack Integration | 2 hours per class |

Month 4: Advanced React and Full-stack Integration — **2 hours per class**

75,000 NGN

Per

WEEK

Week	Class 1	Class 2
Week 13	Advanced Redux: Thunk, Saga, etc.	Consuming APIs in React
Week 14	React Hooks: useState, useEffect	MERN Stack Integration
Week 15	Project Planning and Design	Full-stack Development: Implementation
Week 16	Full-stack Project Development	Deployment Strategies

| Month 5: Advanced Node.js and Express.js | 2 hours per class |

75,000 NGN

Per

WEEK

Week	Class 1	Class 2
Week 17	File Handling in Node.js	Asynchronous Programming in Node.js
Week 18	Building Real-time Apps with Socket.io	Advanced Express.js Middleware
Week 19	Security Best Practices in Node.js	API Testing and Validation
Week 20	Error Handling and Debugging	Performance Optimization

Month 6: Final Projects and Deployment

2 hours per class

50,000 NGN

Per

WEEK

Week	Class 1	Class 2
Week 21	Final Project Development: Refinement	Final Project Development: Testing
Week 22	Final Project Presentation	Deployment and Hosting Strategies
Week 23	Code Review and Optimization	Review