ASB
Future of Web3 Education

2024

FULL STACK &
BLOCKCHAIN COURSES

Full Stack -Development

ASB

Become a Full Stack Developer with ASB's Certification Course!

Embark on a transformative journey into the dynamic world of technology with our Full-Stack Developer Course. In an era where versatility is the key, a Full-Stack Developer certification is your gateway to mastering both front-end and back-end technologies. Whether you are an experienced programmer looking to expand your skill set or a beginner eager to dive into the realm of web development, our comprehensive course is designed to equip you with the expertise needed to thrive in the ever-evolving technology landscape.

Our course covers a spectrum of programming languages, frameworks, and tools, ensuring you gain proficiency in creating robust and scalable solutions. Crafted by industry experts and seasoned developers, our curriculum is meticulously crafted to provide you with a well-rounded skill set to tackle real-world challenges.

Through hands-on projects, collaborative sessions, and mentorship, you will gain insights into best practices and industry trends that define successful development teams.

A global study reports that in 2023, full-stack and back-end developers were the most in-demand IT professionals. Developer jobs are expected to expand by 27% in 2024, according to the U.S. Bureau of Labor and Statistics.

Key Features

COURSE LENGTH
6 months

CLASS SIZE
20 Students

EFFORT
15 Hours a Week

LIVE PROJECTS

MODEL
Instructor - led

TRAINING
80% Practical, 20 % Theory

Tools You Will Learn

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- HTML
- React
- node JS
- MySQL
- CSS
- JS Java Script
- mongoDB
- Saas SAAS

Syllabus / Curriculum

Module 1
HTML Fundamentals

✓ **HTML Structure**

HTML Structure
Text Formatting
Lists and List Items
Links and Navigation

✓ **More HTML Elements**

Forms
Multimedia (Images, Audio, Video)
Tables
Semantic HTML (Header, Footer, Section, Article)

✓ **CSS Basics**

Selectors and Properties
Box Model
Colors and Typography
Backgrounds and Borders

✓ **Layout Techniques**

Flexbox
Grid Layout
CSS Floats (for historical context

✓ **Responsive Design**

Media Queries
Responsive Layouts
Mobile-First Design

✓ **Advanced CSS**

Transitions and Animations
Transformations
Advanced Selectors (nth-child, pseudo-elements)

✓ **CSS Preprocessors and Frameworks**

Introduction to SASS/SCSS
CSS Frameworks (e.g., Bootstrap)

✓ **Project and Portfolio Development**

Build a Personal Project
Create a Portfolio Website

Module 2
How JavaScript Works

✓ **JavaScript Basics**

History and evolution
JavaScript in web development
Variables, Operators and Data Types
Primitive and reference data types
Conditional and Looping statements
String, Number, Date and Time Methods

✓ **Functions and Objects**

Functions in JavaScript
Function declaration and expressions
Parameters and return values
Arrays and Objects
Creating and manipulating objects

✓ **Document Object Model (DOM) Manipulation**

Understanding the DOM structure
Accessing and modifying elements
Events and Event Handling
Handling user interactions, Form Validations
Event listeners and callback functions

✓ **Asynchronous JavaScript**

Introduction to Asynchronous Programming
Callbacks and the callback hell
Promises and the async/await syntax
AJAX and Fetch API
Making asynchronous requests
Handling API responses

✓ **Advanced JavaScript Concepts**

Closures and Scope
Understanding lexical scope
Creating and using closures
ES6+ Features
Arrow functions, template literals, destructuring
Let and const, spread, and rest operators

✓ **Socket Programming**

✓ **Project and Practice**

↗ info@asb.guru

Module 3
Responsive web apps with React

☑ **Introduction to React**

Understanding React and its role in web development
Setting up a React development environment
JSX syntax and its relationship with JavaScript

☑ **Components and Props**

Creating functional and class components
Understanding props and state
Component lifecycle methods

☑ **State and Events**

Managing state in React components
Handling events in React
Form handling and controlled components

☑ **React Router**

Introduction to React Router for Navigation
Setting up routes and navigation in a React application

☑ **Styling in React**

CSS-in-JS libraries (e.g., styled-components)
Theming and styling best practices in React

☑ **State Management**

Introduction to State Management in React
Context API for state management
Global state with Redux (basic concepts)

☑ **Hooks**

Understanding React Hooks (useState, useEffect,
useContext, etc.)
Building custom hooks for reusability

☑ **Advanced React Patterns**

Higher-Order Components (HOCs)
Render Props
Component composition patterns

☑ **Testing in React**

Introduction to testing libraries (Jest, React
Testing Library)
Writing unit tests for React components

☑ **Final Project and Optimization**

Building a larger React project
Performance optimization techniques

Module 4
Dynamics Web Apps with Node.js & MongoDB

☑ **Introduction to Node.js and MongoDB**

Basics of Node.js and its event-driven architecture
Install Node.js, npm (Node Package Manager), and MongoDB
Connect Node.js to MongoDB: Install MongoDB driver
Create a simple "Hello World" application with Node.js

☑ **Building with Node.js**

Node.js modules and the CommonJS pattern
Set up package.json for dependency management
Asynchronous JavaScript concepts in the context of Node.js
Work with file operations and the fs module using callbacks
Introduce Promises and the async/await syntax in Node.js

☑ **Express.js Framework**

Introduction to Express.js for building web applications
Create a basic web server with Express
Explore routing and middleware concepts in Express

☑ **APIs with Node.js, Express, and MongoDB**

Design RESTful APIs using Express
Integrate MongoDB with Node.js using Mongoose
Connect Node.js to MongoDB: Establish connections.
Perform CRUD operations with MongoDB and Mongoose
Handle HTTP methods (GET, POST, PUT, DELETE)

☑ **Authentication and Authorization**

Implement user authentication with Passport.js
Secure routes and implement access control
Use JSON Web Tokens (JWT) for stateless authentication
Apply authentication and authorization concepts.

☑ **Testing and Debugging**

Introduction to testing frameworks (e.g., Mocha, Chai)
Write unit tests for Node.js applications
Mocking and stubbing techniques in testing
Debug and troubleshoot Node.js and MongoDB applications

☑ **Real-time Applications with Socket.io**

Introduction to real-time communication
Build a real-time chat application with Socket.io
Handle events and broadcasting in Socket.io with MongoDB

☑ **Full-Stack Development**

Integrate Node.js with a frontend framework
Build a complete full-stack application

On successful completion of the programme,
you will earn a coveted certificate as **Antier School of Blockchain.**

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CERTIFICATE OF COMPLETION

This Certificate Is Awarded To

Rakesh Mehra

In Recognition Of Your Successful Completion Of Certificate In Full Stack Development.
Your Hard Work, Dedication, And Commitment To Learning Have Enabled You To Achieve
This Milestone, And We Are Proud To Recognize Your Accomplishment.

_____
Date

_____
Signature

* The Certificate shown above is for indicative purpose only. The actual certificate may vary.

Internship and Placement Opportunity on Successful Completion.

Career Options After Course Completion.

- ⊘ Business Analysts
- ⊘ Product Managers
- ⊘ Entrepreneurs
- ⊘ Project Managers and Team Leads

- ⊘ Professionals Working with Managerial, Strategic, or Operational Functions
- ⊘ Developers and Software Engineers
- ⊘ Technology Leaders

Blockchain - The Future.

Become a Certified Blockchain Expert With ASB's Blockchain Certification Course.
Get prepared for the business revolution with our blockchain certification program. In this blockchain certification course, participants can delve deep into the blockchain technology and learn directly from practical applications of the technology. ASB is proud to present this first-of-its-kind blockchain technology certification program that allows professionals to unlock the future of their careers or business.

ASB's blockchain certification program gives you the tools to discern the applicability of blockchain technology to any given business model. Study how digital assets use blockchain to facilitate P2P transactions. Gain a solid understanding of the mechanics behind blockchain protocols and discover how these can solve problems to support business goals.

Led by Antier and joined by leaders and industry experts from blockchain and AI startups, investment firms, and other leading institutions, this certification program gives you knowledgeable content and relevant frameworks so you can drive innovation using blockchain technology.

About **83% of global suppliers, business partners, competitors, and customers** are talking about working with digital assets and moving to blockchain in context to their strategies or solutions. Although blockchain has been synonymous with digital assets, its applications and use cases go far beyond financial transactions.

395%
Growth of blockchain-related jobs in 2021

$176 Billion
Business value-add that blockchain is estimated to contribute by 2025

Key Features

COURSE LENGTH
3 months

CLASS SIZE
Min 20 Students

EFFORT
10 Hours a Week

LIVE PROJECTS
1 month to 4 month

MODEL
Instructor - led

TRAINING
80% Practical, 20 % Theory

Tools You Will Learn

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ethereum	React	node js
bitcoin	GitHub	SOLIDITY

Syllabus / Curriculum

Module 1
Building Blocks of Blockchain

- Blockchain as a Career
- Introduction to Blockchain+ Digital Signatures
- Concept of Hashing + Merkle Tree + Hash Cash
- Cocept of Networking TCP/IP + Peer to Peer
- Combining the Foundation of Technologies to form Blockchain Ecosystem

Module 2
Blockchain Beyond Basics

- Introducing types of Blockchain + Bitcoin Blockchain
- Introducing Ethereum Blockchain + Concept of Private Blockchain
- Introduction to Smart Contract + Web3 development tools
- Introduction to Solidity + Smart Contract Terminologies+ Gas Fees Optimization
- Loops, Operators, and Advanced Data Structures

Module 3
Smart Contract Development

- Concept of ERC 20 + Creation of Token in EVM Compatible Blockchain
- Creation of Own Token Advanced
- Creating a Staking Platform
- Advanced Concepts of Staking Platform
- Introduction to Hardhat and Foundry Frameworks (Smart Contract Frameworks)

Module 4
Non-Fungible Tokens

- Introduction to NFT Standard ERC721 + IPFS & Pinata
- Introduction to Basic Testing Text
- Advanced Test Cases
- Hands on training on Testing Scripts and Deployment Scripts
- Exploring Blockchain Explorers and Open Sea + Concept of ERC1155

Module 5
Case study

- ⊘ Understanding Various Use Cases of Blockchain- Launchpad, Staking Platforms

- ⊘ Understanding Various Use Cases of Blockchain - NFT Marketplaces , DEX

- ⊘ Understanding Various Use Cases of Blockchain - STO, Decentralized Lottery Platforms

- ⊘ Understanding Various Use Cases of Blockchain - Supply Chain

- ⊘ Understanding Vaious Use Case of Blockchain: Healthcare

Module 6
Testing and Audits

- ⊘ Workshop for Writing, Compiling, and Deploying of a Smart Contract

- ⊘ Post Deployment Writing Complete Test Suite

- ⊘ Testing on Remix and Monitoring Transaction on Explorer

- ⊘ Smart Contract Auditing Best Practices

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Career Options After Course Completion.

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- ✓ Solution Architects
- ✓ Product Managers
- ✓ Entrepreneurs
- ✓ Project Managers and Team Leads

- ✓ Professionals Working with Managerial, Strategic, or Operational Functions
- ✓ Developers and Software Engineers
- ✓ Technology Leaders

We provide both offline and online courses.

If you are unable to take our classroom courses, you can always opt for them in online mode. Whether you are a tech enthusiast, a professional, or an entrepreneur eager to upgrade your skills for the future tech industry, you can have the complete course available anywhere at the click of your smartphone!

With our Online courses for blockchain and full-stack development, we impart learning beyond the classrooms, letting you access our storehouse of knowledge at your fingertips.

Flexibility and Learning at your own pace
Our online courses allow you to set your schedule, making it convenient for working professionals and students alike.

Interactive Learning
You can interact with your peers and our trainers, via live online lectures and engage in active learning through hands-on tasks

Breaking the barriers of geographical limitations
You can access our courses from anywhere in the world with an internet connection.

24/7 Availability
Our course materials are available 24/7, giving you the freedom to study whenever it suits you best.

How It Works:

Enrollment: Choose your desired course and enroll online. The process is simple and can be completed in a few clicks.

Access Course Materials: Once enrolled, you can gain instant access to our online learning platform. Navigate through modules, download supplementary resources, and stay informed of the timing of live classes.

Engage with Instructors: Interact with experienced instructors through online classes, doubt sessions, webinars, and Q&A sessions. Get your queries answered and learn from industry experts.

Practice Hands-on Projects: You will be assigned real-world projects and assignments to work on. With this, you will be able to test your knowledge in industrial scenarios.

Earn Certification: After successfully completing the course, you will receive a verified certificate to showcase your achievements.

Placement Assistance: The toppers will also have the advantage of placement support and further career assistance.

················· Embark on Your Learning Journey Today! ·················

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VIKRAM R SINGH
CEO
Founder, Antier Solutions.

SHASHI PAL
Chief Operating
Officer

VISHAL SHARMA
Head - Learning &
Development

ANKIT BHATIA
Chief Training Officer/
Technical Project Manager

AJAY MITTAL
Academic Program
Advisor And Mentor

KARAN BHAI
Head - Business
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● Best-in-Class
Blockchain
Industry Experts