JAVA FULL STACK DEVELOPMENT

Course Syllabus

Duration: 60 Day Program

Chapter	Topic	
1	**Introduction to Java**	
	• Introduction to Java programming language • Object-oriented programming concepts • Java syntax, data types, and operators • Control flow statements and loops	
2	**Front-End Development**	
	• Introduction to HTML, CSS, and JavaScript • Building responsive and interactive web interfaces • Introduction to front-end frameworks like Bootstrap and Angular • DOM manipulation and event handling	
3	**Back-End Development with Java**	
	• Introduction to server-side programming with Java • Setting up Java development environment (JDK, IDE) • Building RESTful APIs with Spring Boot • Handling HTTP requests and responses	
4	**Database Management with MySQL**	
	• Introduction to relational databases and SQL • Setting up MySQL database server • CRUD operations (Create, Read, Update, Delete) with JDBC • Database connectivity and transactions	
5	**Advanced Java Concepts**	
	• Exception handling and logging • Multithreading and concurrency • Generics and collections • Serialization and deserialization	
6	**Full Stack Development Projects**	
	• Building full-stack web applications using Java technologies • Integrating front-end and back-end components • Implementing user authentication and authorization • Deploying applications to cloud platforms	

Chapter	Topic	
7	**Version Control with Git**	
	• Introduction to version control systems • Setting up Git repositories • Basic and advanced Git commands • Collaborative development and branching strategies	
8	**Software Development Best Practices**	
	• Code quality and code review • Unit testing and test-driven development (TDD) • Continuous integration and continuous deployment (CI/CD) • Agile development methodologies	

Course Overview:

The Java Full Stack Development course is designed to equip participants with the skills and knowledge required to become proficient in both front-end and back-end web development using Java-based technologies. Through a combination of theoretical concepts, practical exercises, and hands-on projects, participants will learn how to design, develop, deploy, and maintain full-stack web applications.