**Full Stack Java Development**

**Month 1: Introduction to Java and Front-End Development**

Week 1: Introduction to Programming and Java

* + Overview of programming concepts
  + Installing Java and an IDE
  + First Java program

Week 2-3: Java Basics and Object-Oriented Programming

* + Variables, data types, operators
  + Control flow (if statements, loops)
  + Functions, classes, and inheritance

Week 4-5: Front-End Development with HTML, CSS, and JavaScript

* + HTML5 and CSS3 basics
  + Introduction to JavaScript and the Document Object Model (DOM)
  + Basic front-end project

Week 6: Introduction to Front-End Frameworks

* + Overview of front-end frameworks (e.g., React, Angular, Vue)
  + Setting up a simple project with a front-end framework

**Month 2: Back-End Development with Java and Spring Boot**

Week 1-2: Introduction to Back-End Development

* + Basics of server-side programming
  + Setting up a Java project for back-end development

Week 3-4: Introduction to Spring Boot

* + Overview of the Spring framework
  + Building a basic RESTful API with Spring Boot

Week 5-6: Database Connectivity and Persistence

* + Introduction to databases (e.g., MySQL, PostgreSQL)
  + Connecting a Spring Boot application to a database
  + Implementing CRUD operations

**Month 3: Full Stack Development Integration**

Week 1-2: Connecting Front-End and Back-End

* + Integrating the front-end framework with the Spring Boot back-end
  + Handling data exchange between the client and server

Week 3-4: Security and Authentication

* + Introduction to security best practices
  + Implementing user authentication and authorization

Week 5-6: RESTful API Design Best Practices

* + Advanced topics in RESTful API design
  + Documenting APIs and using Swagger

**Month 4: Advanced Topics and Final Project**

Week 1-2: Advanced Spring Boot Features

* + Spring Boot data repositories
  + Handling exceptions and error responses
  + Introduction to Spring Boot testing

Week 3-4: Deploying Full Stack Applications

* + Deployment strategies for Java applications
  + Deploying the full-stack application to a cloud platform (e.g., Heroku, AWS)

Week 5-6: Final Project and Project Presentations

* + Guided work on a full-stack project
  + Final project presentations and feedback