



JAVA FULL STACK DEVELOPER TRAINING PROGRAM

Course Description:

This course teaches participants the core skills needed to apply for Java developer positions. The focus is on developing high quality, working software that solves real problems. The course is designed for students with non-programming experience.

About the Course:

This is an interactive course. Students will learn by doing and from each other, as well as the instructor, text, guest lecturers, presentations, weekly assignments and a final project.

Professionalism is very important in this field, and therefore in this course. Class attendance, punctuality, civility, ability to get along with others, cooperation, collaboration, creativity, attention to details, resourcefulness and meeting deadlines are all critical elements of success.

Full Course Description:

Java

- Java full stack development; explanation of job
- Intro to Java
- Data types, example code, operators (truth tables)
- If statements, loops
- Arrays, for loops with arrays; multi-dimensional/associative arrays
- Inheritance
- Access modifiers
- Polymorphism
- Exception handling
- Code together
- Multithreading/Asynchronous

Front End

- HTML intro and how it works
- HTML tags, tables and bootstrap

HTML

- Create websites using HTML and CSS
 - Start JavaScript

CSS

- JavaScript functions, getting input and displaying that information on HTML

JS

- How JavaScript is used, and different variations like angularJs, jQuery
- Bootstrap grid system; in line calls to JavaScript.
- Have a review of Java concepts; coding websites

Web Services/API (http and REST)

AWS for Web Hosting and Security

Database + Project

- Route helpers, configure files and routes
- How databases work, why they are important and examples of real-life situations
- Relationships (one to many, one to one, foreign keys and primary keys; indexes)
- Data types, how queries work, server load and traffic
- How to map things, scaling databases for multiple records, database design
- Database benchmarking; adding, dropping, inserting, selecting
- Joins, all types of joins; where conditions AND OR
- Union, how to write subqueries and combine them
- How to optimize SQL queries based on joins and conditions

Web Development + Project

- MVC, Solid principles, MSVC, red, green refactors
- JDBC, CRUD, examples with forms
- Session management http status codes

Project Presentation

- Website Demonstrations

Course Duration:

- 13 weeks
- 3 classes per week, 6 – 9 p.m.
- Possibility of change in start time to 6:30 p.m.

Prerequisites:

A Bachelor's degree is preferred; algorithmic thinking and knowledge of the Microsoft Office suite.

Course Learning Outcomes:

- Learn the core Java skills needed to apply for Java developer positions
- Be able to demonstrate your understanding of Java to future employers
- Learn industry best practices in Java software development
- Acquire essential Java basics for transitioning to the Spring Framework and more