

# CodingNOMADS

Java & Software Engineering Fundamentals  
4 week online syllabus

20+ hours/week

Mon & Weds: 90 min online lectures + live Q&A

2 Private mentor sessions/week

Team Slack channel for questions & collaboration

Instructor - Ryan Desmond

10+ years software engineering experience

3 years teaching experience

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Got questions? Get in touch!

[kim@codingnomads.co](mailto:kim@codingnomads.co)

Please note that this syllabus is subject to modification on a group-by-group basis.



# SYLLABUS

4 week online intensive

## Core Java

### Java Fundamentals

Software engineering principles & applications

Intro to Java - when & why to use it

Constructors, Data Types, Variables

Operators, Flow Control

Methods, Objects, Classes

Exceptions & Exception Handling

Generics, Lambdas, Documentation

Libraries, Conventions, Identifiers, etc.

### Java Development

JDK, JRE and Virtual Machines

Command Line Interface

IntelliJ IDE

Debugging & Deployment

### Java Programming

Intro to Object Oriented Programming

Abstraction, Inheritance, Polymorphism, Encapsulation

Application architecture – Design, Packaging, Reusability

## Engineering Fundamentals

### Version Control & Collaboration

Git, GitHub, Syntax and Usage

Collaboration: Atlassian Jira

Agile Software Development Methodology

### Databases & Data Management

SQL Syntax

MySQL & JDBC

Database Management

### Intro to Advanced Concepts

Spring Framework

RESTful APIs, client libraries

Model View Controller (MVC)

Amazon Web Services (AWS)

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