Advanced Topics module

**Java, Spring Boot, Cloud Native Approach: Advanced Concepts** (2 weeks)

**Option 1:** UI/UX: Build and Test Single Page Applications with **Angular** (2 weeks)

**Review/Re-Architect Capstone Project**

(Based on learnings from Advanced concepts) (2 weeks)

Day 1

Cloud native concepts and Principles

Google:

https://cloud.google.com/blog/products/application-development/5-principles-for-cloud-native-architecture-what-it-is-and-how-to-master-it

IBM:

https://www.ibm.com/cloud/architecture/architecture/practices/cloud-native-principles

Microsoft:

https://learn.microsoft.com/en-us/dotnet/architecture/cloud-native/definition

Amazon:

https://aws.amazon.com/what-is/cloud-native/

1. Single concern principle is same as - Single responsibility Principle of SOLID.
2. High observability principle
3. **Continuous Integration/Continuous Delivery**

**POD point of delivery**

**AWS, Jenkins**

**Deploy the project**

**Update the project and push the same**

**Scale up and scale down**

## Principle 2: Be smart with state

State management is ability to retain or share information across multiple requests.

# 12 Factor App Principles and Cloud-Native Microservices

<https://dzone.com/articles/12-factor-app-principles-and-cloud-native-microser>

Microservices Patterns and principles

<https://www.qbrainx.com/blog/microservice-design-patterns-and-principles/>