Introduction

In this lesson, we'll walk through what this chapter holds for us.

Motivation

Microservices provide much better decoupling. Therefore, they help to modularize and isolate software modules (see Advantages). However, microservices are modules of a larger system. Therefore, they must be integrated. This poses a challenge for the architecture:

- On the one hand, the architecture has to **ensure that the microservices can work together** to form the overall system.
- On the other hand, the freedom of the **microservices should not be too restricted since this would compromise their isolation** and independence which are required for most of the benefits of a microservice architecture.

Definition

For this reason, it is advisable to divide the architecture into a micro and a macro architecture.

- The **micro architecture** comprises all decisions that can be made individually for each microservice.
- The **macro architecture** consists of all decisions that can be made at a global level and apply to all microservices.

| Microservice 1 Micro Architecture 1 | Microservice 2 Micro Architecture 2 | Microservice 3 Micro Architecture 3 | Microservice 4 Micro Architecture 4 |

Macro Architecture

Micro and Macro Architecture
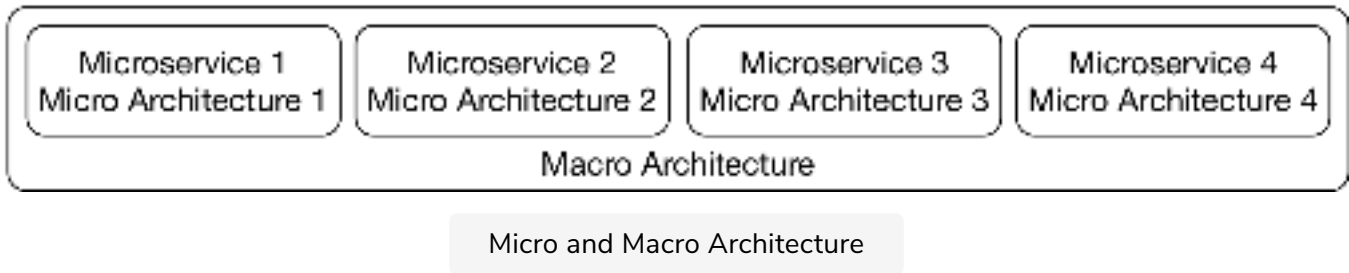
The drawing above illustrates this idea. The overarching **macro** architecture applies to **all microservices**, whereas the **micro** architecture deals with **individual microservices** so that each microservice has its own microarchitecture.

Chapter walkthrough

This chapter illustrates the following:

- The **division of domain logic** into microservices. *Domain-driven design* and *bounded context* are great approaches for such a division.

- The decisions that are part of the *technical micro and macro architecture* and how a **DevOps model** affects these decisions.

- The question of **who** divides the decisions into micro and macro architecture and creates the macro architecture.

Q U I Z

1 The e-commerce system discussed in the last chapter, can be divided into microservices like so:

- ordering
- registration
- product search

Suppose the product search team decides to optimize search with a new algorithm. Is this a micro or macro architecture decision?

In the next lesson, we'll look at domain-driven design and an introduction to bounded contexts and strategic design.