Cloud Foundry

In this chapter, we'll gain a quick introduction to the PaaS technology, Cloud Foundry.

We'll cover the following

Why Cloud Foundry?#

Cloud Foundry (https://www.cloudfoundry.org/) serves as PaaS technology for the example in this course. The following are the reasons for this:

Open source#

Cloud Foundry is an **open source project** involving a number of companies.

Cloud Foundry is managed by a **foundation**, in which Cloud Foundry providers such as **Pivotal, SAP, IBM, and Swisscom** are organized.

This ensures broad support in addition to the already many PaaS based on the Cloud Foundry.

Easy to install#

Cloud Foundry can be easily installed as a Pivotal Cloud Foundry for Local Development on a *laptop* to set up a local PaaS for developers to test microservices systems.

Common#

There are many public cloud providers who have an offering based on Cloud Foundry. An overview can be found at: https://www.cloudfoundry.org/how-to-try-cloud-foundry/ (https://www.cloudfoundry.org/how-to-try-cloud-foundry/).

Can be installed on your own data center#

Finally, Cloud Foundry can be installed in your own data center. Pivotal Cloud Foundry (https://pivotal.io/platform) is, for example, an option for this.

Flexibility

Cloud Foundry is a **very flexible PaaS**.

- Cloud Foundry supports applications in **different programming languages**. A buildpack must be available for the chosen programming language. The buildpack creates the Docker image from the application, which is then executed by Cloud Foundry. The list of buildpacks (https://docs.cloudfoundry.org/buildpacks/) shows which buildpacks can be downloaded from the Internet

Which buildpacks can be downloaded from the Internet.

- In a Cloud Foundry system, **modified or self-written buildpacks** can be installed. This enables support for additional programming languages or the adaptation of existing support to fit your needs.
- The **configuration of the buildpacks** can change memory settings or make other adjustments. Thus, an existing or self-written buildpack can be adapted to the needs of the microservice.
- It is also possible to deploy **Docker containers (https://docs.cloudfoundry.org/adminguide/docker.html) in a Cloud Foundry** environment. However, in this case, it is important to pay attention to the special features of Docker under Cloud Foundry. Ultimately, this makes it possible to run virtually any software with Cloud Foundry.

QUIZ

1 Cloud Foundry is ____.

You can choose multiple answers.

- [ ] A) an open source software
- [ ] B) a PaaS

C) a IaaS

Submit Answer

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In the next lesson, we'll look at a Cloud Foundry example.

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