Technical University  
of Applied Sciences  
Würzburg-Schweinfurt

Faculty of Computer Science and Business Information Systems

Würzburg, on  
27.04.2023

# Cloud Native Computing

**Exercise: Main Concepts of Cloud Computing and Software Architecture**

**Exercise 1: Check Your Understanding (multiple-choice)**

What is not the advantage of software architecture?

( ) The architecture prevents or enables the driving quality attributes of a system

( ) The architecture make the software more attractive to customers

( ) The architecture makes it possible to analyze and manage changes as the system evolves

( ) The analysis of the architecture enables early predictions of the later system qualities (under certain assumptions)

What problems can the agile approach address and the traditional waterfall method cannot?

( ) Examples of agile testing methods are Scrum and Kanban

( ) Delivers work in small, but consumable, increments.

( ) Requirements, plans, and results are evaluated continuously.

( ) Reduce the complexity of the software architecture

If you want to describe your software architecture, what can't you use to explain your model?

( ) Kanban board

( ) UML

( ) C4-model

( ) whiteboard

What is not a tool to help deploy an application as a microservice?

( ) Docker

( ) Kubernetes

( ) Ubuntu

( ) Rancher

**Exercise 2: Check Your Understanding (freetext)**

Why do we need software architecture patterns?

Your answers

What are the differences between Software design, Architectural design, Detailed design?

Your answers

What are the differences between Conceptual architecture, Software technical architecture and Systems engineering architecture?

Your answers

What is Abstraction in context of Software Architecture?

Your answers

Define 3 Responsibilities of Software Architect

Your answers

What is UML?

Your answers

Why “Aging of Software” important is to be considered?

Your answers

**Exercise 1.3: draw.io and C4-model**

Download the C4 model library in draw.io

In Form board, click “+ More Shapes...” -> check “C4”

Draw the following C4-model with Draw.ioEin Bild, das Diagramm enthält.

Automatisch generierte Beschreibung

Draw the higher level (level 2) of abstraction of the following diagram (level 3)

Ein Bild, das Diagramm, Plan enthält.

Automatisch generierte Beschreibung