A3.SW1 - Software Designer

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1. Keyfacts

Duration	6 months (6 practice days + homework)
Language	English or German
Setting	on-site or remote

2. Target Group

Aspiring Software Designer

3. Training Goal

The ultimate goal of this training is to deepen the knowledge on Software Design and to improve the individual skills by practicing. The particular focus in this training is put on the aspects

#1 - Software Design with UML
Participants deepen their knowledge on designing Software by means of UML. This involves the specification of Requirements, structural and functional design

#2 - Design for X
Participants are able to interpret given architectural drivers and to derive a corresponding Software Design

#3 - Software Test
Participants are able to maintain testable code and to write corresponding Unit Tests

3. Training Content

Variation Points
This training is available for different programming languages. At present, the following languages are implemented and maintained:
- Python
- C#
- C++
- C

Software Design with UML
- Recap on the essential design concepts with UML
- Developing Unit Requirements as basis for development and testing
- Structural and functional design
- Control-Path and Data-Path

Design for X
- Understand Architectural Drivers
- Indicating trade-offs
- Concepts for realizing design for X

Software Test

- Design for Testability
- The "Incrementality" principle as basis for "Continuous X"
- Black-box and white-box testing
- Test-Case Development

4. Learning Methods and Didactics

This training puts a major focus on the practical application. Thus, all modules are structured as follows

1. Theory-Block: Theoretical Introduction and basic concepts (1/2 day)
2. Homework: Practical application on a given example, guided by trainer (~3weeks)
3. Theory-Block: Reflection and Introduction to next module (1/2 day)

5. Your Benefit

"The best way to learn programming is to write programs". Though this is a clear concept, in reality often the specific track is missing, that guides you on the development of particular skills. In this training, you will be taken on a structured journey to develop or improve the most fundamental skills that will help you become a great Software Engineer!

6. Your Trainer

FH-Prof. Dr. Christian Neureiter
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Christian is Professor at the School of Information Technology and Digitalisation at Salzburg University of Applied Sciences. As head of the "Center for Dependable Systems Engineering" he is an expert in this field and has profound knowledge on the matter.

Asides his academic role, Christian has 10+ years of experience as consultant and trainer at the Successfactory Consulting group with a particular focus on Leadership, Software, and Systems Engineering related topics.

For more information on scheduled trainings or the organisation of a closed group contact us:

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