ADVANCED PROGRAMMING IN C++

Organizational

Patrick Bader · SS 2023

About Me

Patrick Bader (just call me Patrick)

2005-2010: Studied MIB & CSM @ HdM

2010-2018: Research Assistant @ HdM and University of Stuttgart

Since 2018: CTO @ ThingOS GmbH

Since 2022: CTO @ ThingOS GmbH & Co KG

Goals Of This Lecture

Learn fundamentals of C++ programming

Thorough understanding of basic language concepts

Know how certain language features are implemented

Get a feeling for how design decisions map to hardware

Not Goals Of This Lecture

Become a C++ expert

Create fancy GUI applications

Web programming

Learning lots of frameworks and libraries

Lecture

EDV-Nr: 113409

Location - Hybrid

Scope - 2 SWS / 4 ECTS

Language - Lecture: German - Slides & materials: English

Prerequisites

Good knowledge of at least one programming language (e.g. Java)

Basic knowledge of Git (you have to teach it yourself otherwise)

Communication

I am looking forward to discussions and questions on Mattermost

You can also send me a mail baderp@hdm-stuttgart.de, it sometimes takes some time for me to answer

Script

There is **no script**, you should **attend the lectures**.

You can download the slides from https://ap-cpp.pages.mi.hdm-stuttgart.de/lecture/latest/

From time to time I will do demonstrations directly in code.

There is also a GitLab repository for the slides: https://gitlab.mi.hdm-stuttgart.de/ap-cpp/lecture

If you find **errors**, or have **questions** just create an **Issue in GitLab**.

I am also happy about **merge requests**.

Exercises

There is a GitLab repository for exercises: https://gitlab.mi.hdm-stuttgart.de/ap-cpp/exercises

Instructions are included, see the repository `README.md`

You can check your progress with unit tests which will be provided for all future testable exercises

If you find **errors** or have **questions** or **suggestions** just create an **Issue in GitLab**.

I am also happy about **merge requests**.

Exam

Written exam on paper

No extra materials are allowed

90 minutes time

Approx. 7 tasks

One programming task

Important

Add the course to your **personal timetable** to **receive updates** regarding the lecture from me.

Ask Questions if something is unclear during the lecture.