Practical course: Interactive Learning

Info Meeting

03. February 2025

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Teaching Philosophy

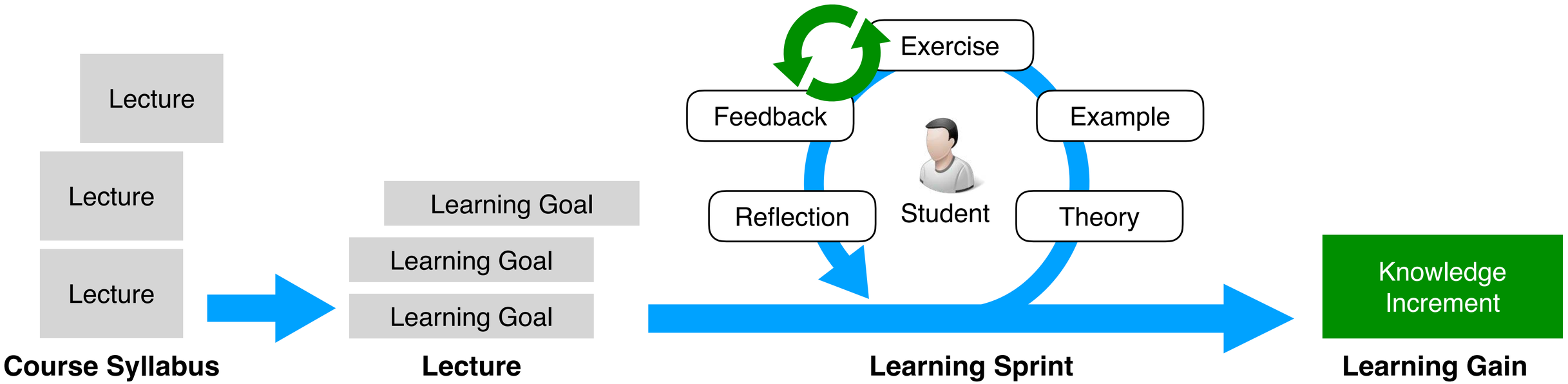
“Tell me and I will forget.

Show me and I will remember.

Involve me and I will understand.

Step back and I will act.”

Continuous Interactive Learning



- Learn and exercise small chunks of content in short cycles
- Get guidance and immediate feedback to prevent misconception
- Reflect on the content and increase knowledge incrementally

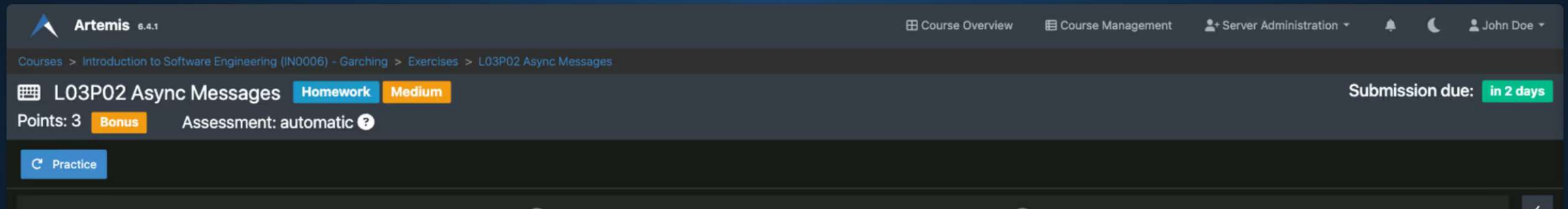
Artemis

Interactive Learning with Individual Feedback

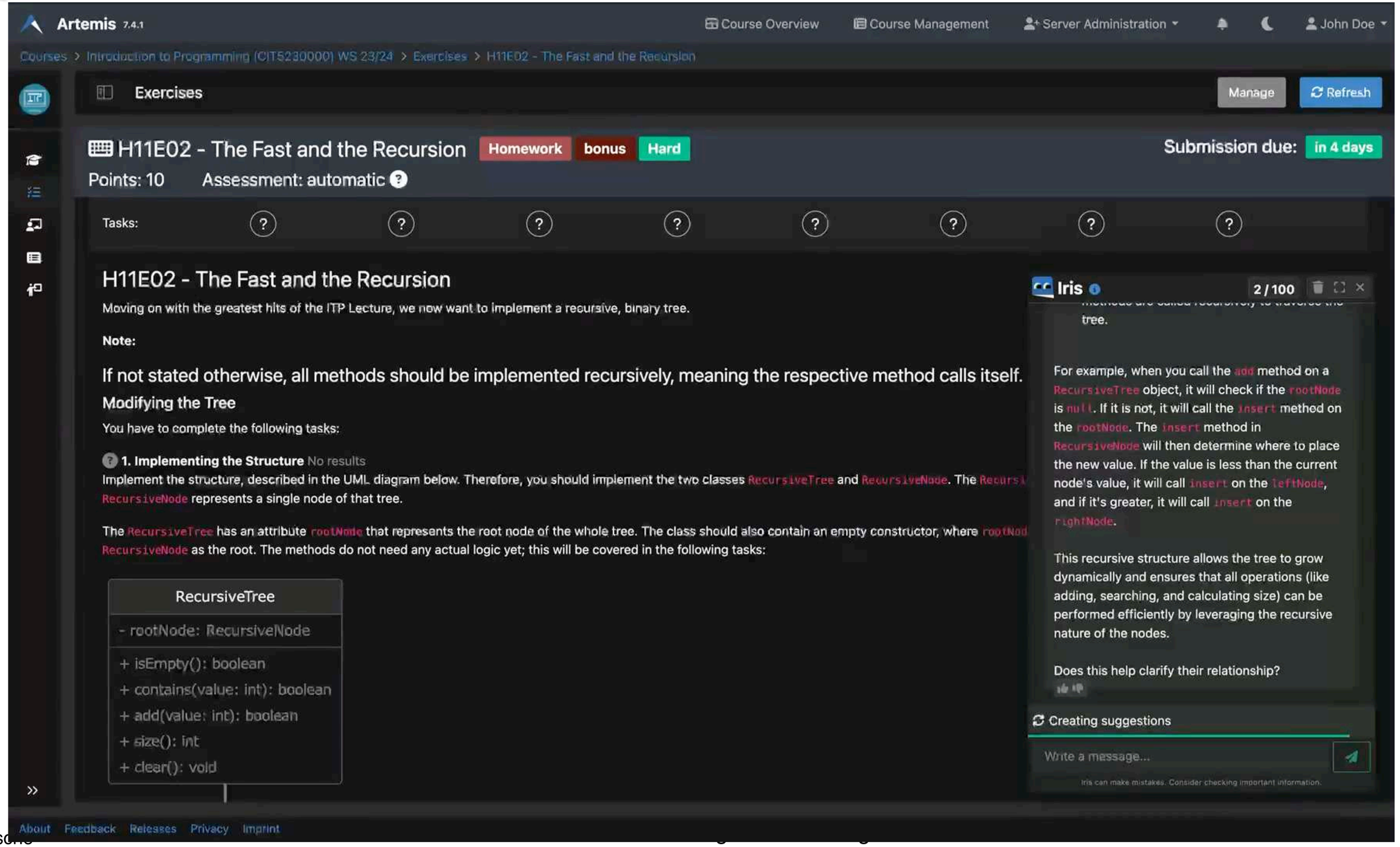
Artemis brings interactive learning to life with instant, individual feedback on programming exercises, quizzes, modeling tasks, and more. Offering customization for instructors and real-time collaboration for students, this platform bridges creativity and education. Embrace a new era of engaging, adaptive learning with Artemis, where innovation meets inclusivity.

Artemis is open-source. Meet the the future of educational excellence.

View on GitHub | Get in touch



IRIS – AI-Driven Virtual Tutor



Prerequisites

- You have extensive experience in software engineering
- You have passed the course **Introduction to Software Engineering** and/or **Patterns in Software Engineering** or you have equivalent knowledge
- You have experiences with **git** and **Docker**
- You are highly motivated to learn new concepts
- You are enthusiastic to help other students
- You can work independently
- Beneficial
  - You have experiences with distributed systems, microservices, and monitoring
  - You have experience with cloud integration, deployment strategies / platforms and Kubernetes

Learning Goals

- **Supervise a team of students who are working on a project related to DevOps**
- Investigate existing learning tools and best practices for teaching
- Become familiar with best practices for teaching software engineering
- Deepen your knowledge in software engineering
- Customize and extend existing tools for university and online courses (e.g. Artemis, Iris, Athena)
- Apply incremental, agile, and adaptive development methods
- Apply continuous integration and continuous delivery

DevOps: Engineering for Deployment and Operations

- New course in the summer 2025
- Limited to ~150 students
- Workshop about the theory intermixed with small tutorials and in-class exercises: Friday, 12:00 - 14:00 in **EI-HS** (5901.EG.051)
- Main course components
  1. **Project Work** (50% of the grade): teams of 3 students work implement a project demonstrating their ability to implement DevOps principles effectively
  2. **Computer-Based Exam** (50% of the grade): 90m exam at the end of the course to assess individual understanding and application of the course material
- **Tutor responsibilities**
  - Support the students during project work
  - Help in workshop and exam conduction (onsite)
  - Participate in the workshops on Friday and help with live tutorials
  - Answer students' questions (online via Artemis)

Additional Tasks in the Practical Course

- Participate in the development of Artemis
  - **Requirements elicitation**, analysis, design, implementation and **testing**
- Improve the usability and user experience of Artemis
  (in particular from the perspective of students)
- Bring in your own ideas!
- Create a project report at the end of the course
- **Voluntary**: participate in the development of Artemis, Iris, Athena, …

Application

1) Fill out the application on
   https://prompt.aet.cit.tum.de/apply/faac9014-a698-41e7-bdfb-66f0a17ece9e
   (latest until **10 February 2025**, **9:00 am**)

2) We will review your application and invite you for an interview

3) Choose an interview time slot

4) Come **prepared** to an interview (virtual)

5) We will inform you about your participation (latest until **18 February 2025**)

6) Prioritize the practical course in the matching system
   (latest until 19 February 2025)

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