Server-Side Swift

Info Meeting - July 7, 4pm

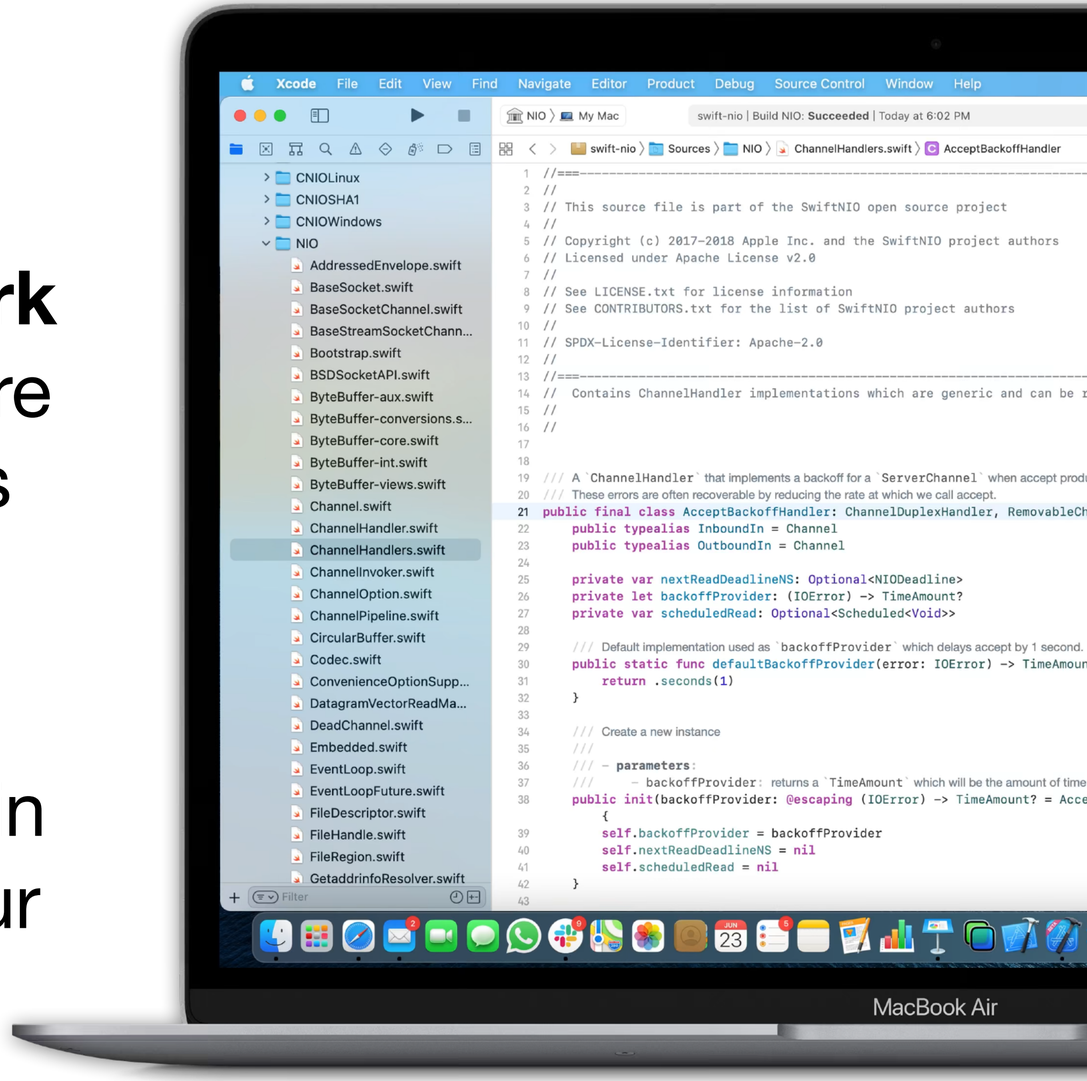
Paul Schmiedmayer

Goals

- Get the chance to contribute to the emerging field of **server-side Swift development**
- Learn about the bases of server-side development using, e.g., **SwiftNIO**
- Learn about best practices when **designing a framework**
- Gain input from each other and work on designing an consistent API

Course Content

- You will have the chance to **choose a topic** until the start of the semester
- As part of the **weekly standup** and **work meetings**, you discuss the project, share the progress, and get hands-on insights from fellow students and supervisors
- Showcase your current progress in the form of a short presentation and demo in the **intermediate presentation** and your final projects in the **final presentation**



Important Dates

- **Nov 3, 1pm - 2:30pm:** Kickoff
- **Tuesday, 1pm - 2:30pm:** Standup Meeting
- **Tuesday, 2:30pm - 6pm:** Work Meeting
- **Dec 15, 1pm - 5pm:** Intermediate Presentation
- **Feb 9, 1pm - 5pm:** Final Presentation

The TUM is currently discussing (and it is very likely) that the lecture period for the winter semester will start on 2 November, 2020 and will be three weeks shorter. The dates above reflect this scenario.

Project and Topics

- In this iteration of the Server-Side Swift practical course the main project will be the development of a **modern, declarative Server-Side Swift framework**
- The framework will be based on existing research and prototypes and should feature a **declarative API and exporter components** that enable the development of
  - **REST**, **GraphQL**, **gRPC** and **WebSockets** endpoints
  - Connect it to an **object-relational mapping (ORM) framework** like Fluent
  - Integrate existing **tracing** and **metrics** frameworks
  - Support features important to mobile application development such as **push notifications**, **OAuth** …

Prerequisites

- **Experience in Swift is highly recommended**. If you have no prior Swift knowledge, you should be a skilled programmer and should be willing to learn Swift before the practical course starts.
- Experience of using, e.g., REST, GraphQL, gRPC, WebSockets, …
- Refresh your Swift knowledge by reading the **Swift programming language guide**, check out **Swift NIO** and **Vapor** and related articles, examples, …

Grading

- **Project Work:** 70%
  - Functionality, Code Style, Test Coverage, …
- **Presentations:** 15%
- **Code Reviews:** 15%

Additional Requirements to pass the course: Attendance & participation in the seminar meetings

Application Process

1. Fill out the application form: ase.in.tum.de/ServerSideSwift until **July 15, 11:59pm**

2. Innovation for a personal interview by Friday. Interviews take place on **Monday, July 20, 2020**.

3. After we have accepted you, prioritize the Practical Course "Server-Side Swift” by **Tuesday, July 21, 2020, 11:59 pm**

Contact & Information

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