Course Description

In this course we will learn the fundamentals of full stack development. How web servers operate, and the various ways clients interact with them. Modern front-end web development techniques starting with HTML/CSS/JS all the way to single page applications built with React. We will utilize your previous knowledge of the Python programming language to build state-of-the-art back-end services, exposing REST API and employing persistent storage on top of a MySQL database. With those building blocks we will create an end-to-end Blog application running first on your local laptop, and then take it to the next level learning of the AWS (Amazon Web Services) cloud and harnessing its power to turn your project into a publicly available testimonial to your capabilities as a software engineer.

Course Goals
The most important practical skill that the students are expected to pick up during this course is the ability to design, create and deploy a full operating web-application to the cloud while using the top technology-stack available today.

**Grading**

Project checklist with several milestones.

**Learning Outcomes**

In this course, the students will build a blog and will create the required components to support and deploy such a project, components such as:

1. Front-end: What your blog will look like and how to get data into your web-application.
2. API server: the “brain” that receives requests from the client and returns the desired response.
3. Database: How to store and access your application’s data.
4. AWS: What is Amazon Web Services and how to harness its services to our use.

Each aspect of this course will be a milestone of the final project and will showcase “real world” scenarios and technologies, that can be implemented individually by the students.

**Lecturer Office Hours**

Monday 12:30 - 14:00 in room PEB14

**Reading List**

- https://docs.aws.amazon.com/index.html
- https://reactjs.org/
- https://docs.python.org/3/tutorial/
- https://www.mysqltutorial.org/