

# Deep Dive Into Modern Web Development

Full Stack open 2022

Start course

Learn React, Redux, Node.js, MongoDB, GraphQL and TypeScript in one go! This course will introduce you to modern JavaScript-based web development. The main focus is on building single page applications with ReactJS that use REST APIs built with Node.js.



## Announcements

The year 2022 is over but the course continues! See [this](#) for more details.

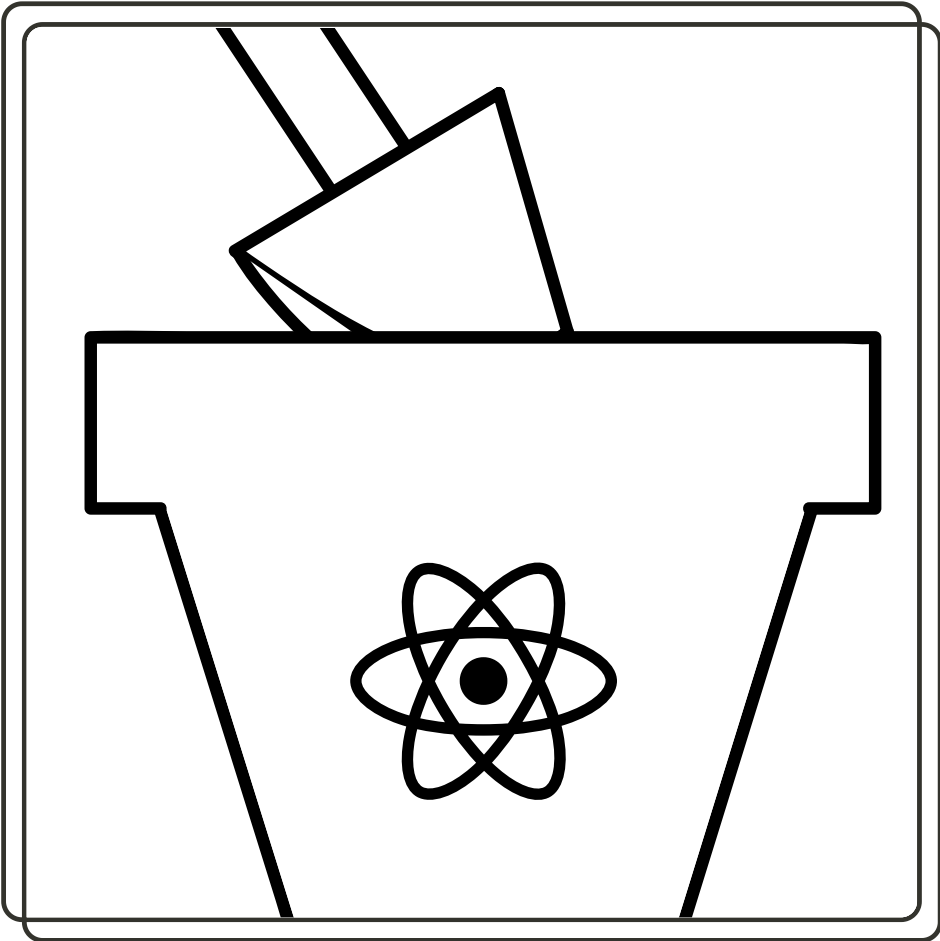
You can discuss the course and related topics in our dedicated group on Discord <https://study.cs.helsinki.fi/discord/join/fullstack> and on Telegram: <https://t.me/fullstackcourse>. Please join the conversation!



## Authors and License

Parts 0-8 and 13 of the course material is written by [Matti Luukkainen](#). The content of part 9 is written by developers from [Terveystalo](#). Part 10 is written by [Kalle Ilves](#). The content of part 11 is written by developers from [Smartly](#) and part 12 is by [Jami Kousa](#). Numerous [people](#) have improved and corrected the material both in content and spelling. You can also make improvements to the course material yourself. The course webpage is designed and created by [Houston inc](#), who have also audited the content of the course material. Chinese translation by [Zhang Wei](#). Spanish translation by [Sebastian Torres](#) and [Cynthia Vico Vacca](#).

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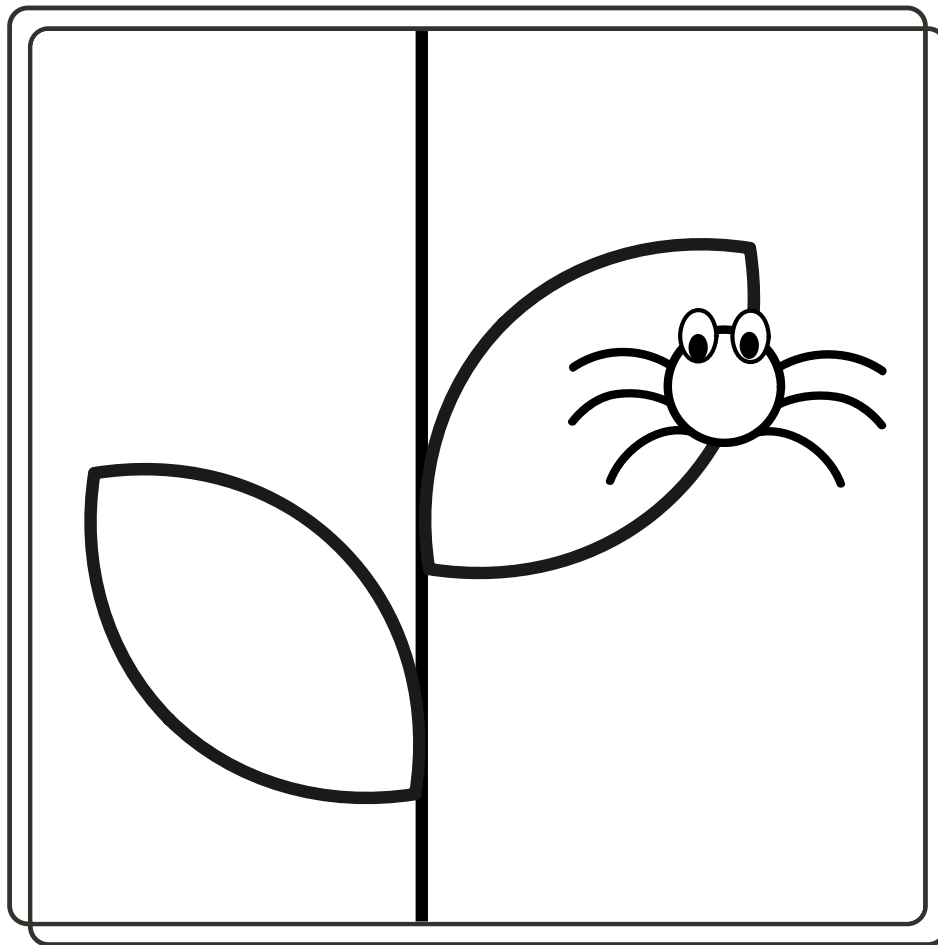
Part 0

Fundamentals of Web apps



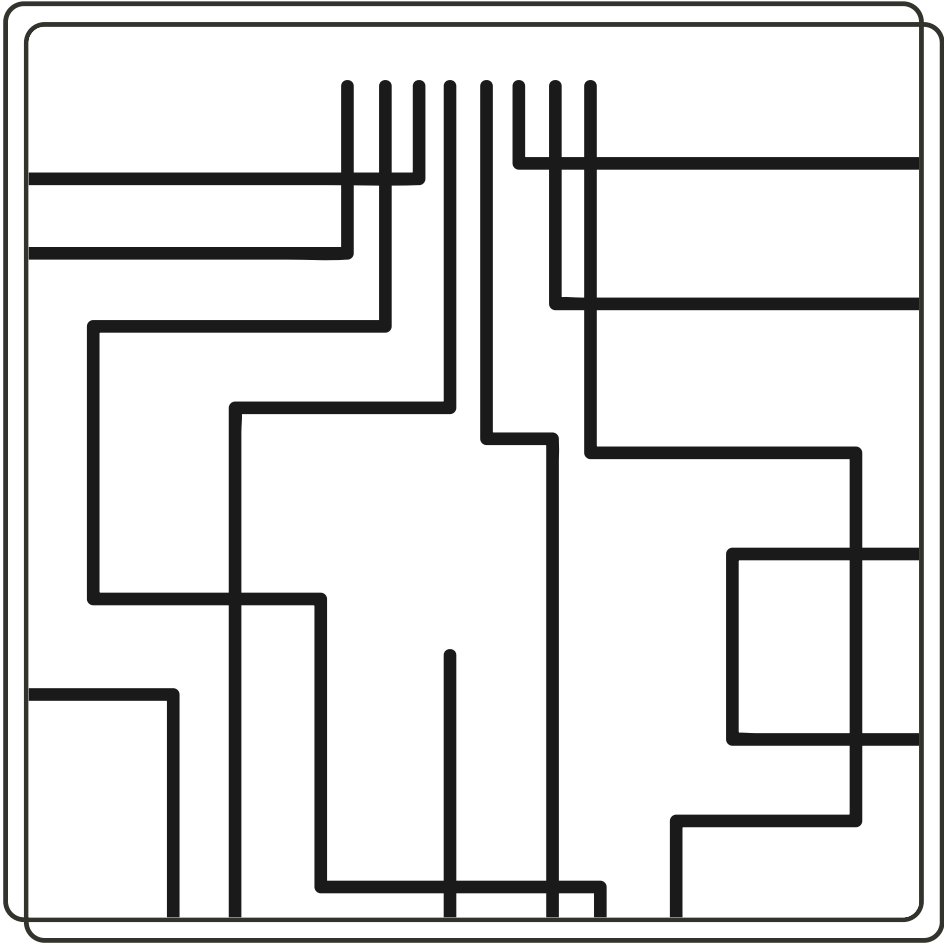
## Part 1

Introduction to React



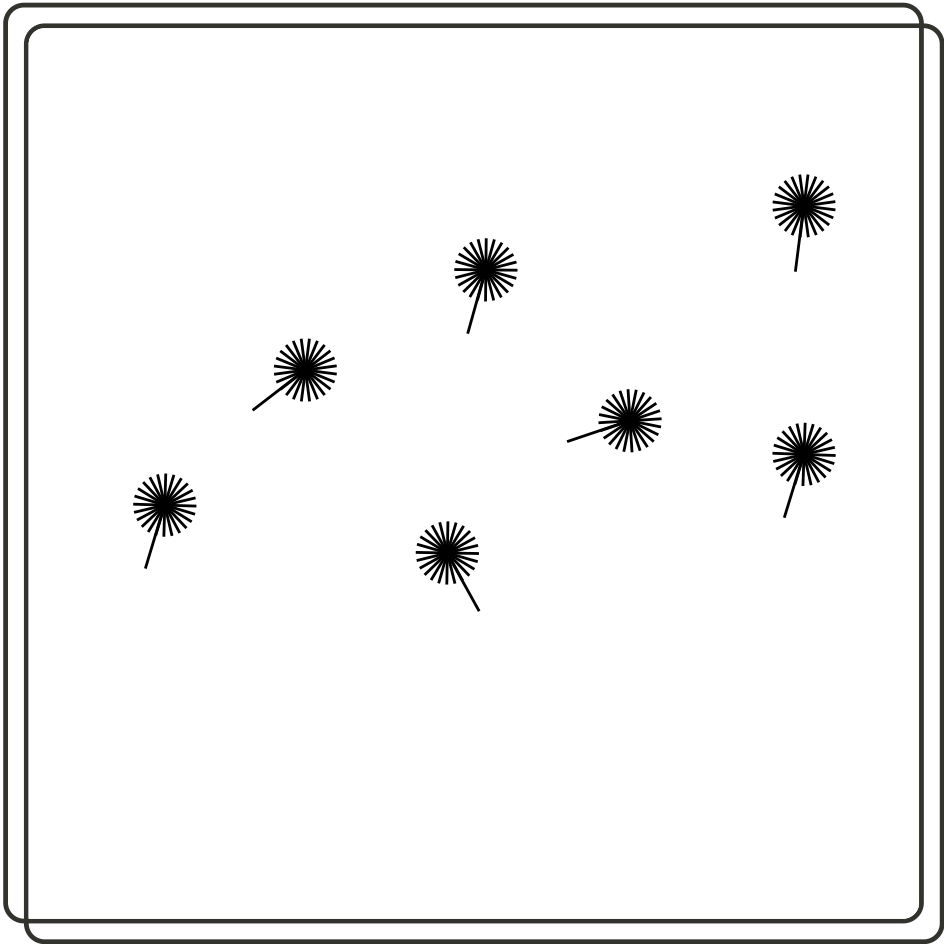
## Part 2

Communicating with server



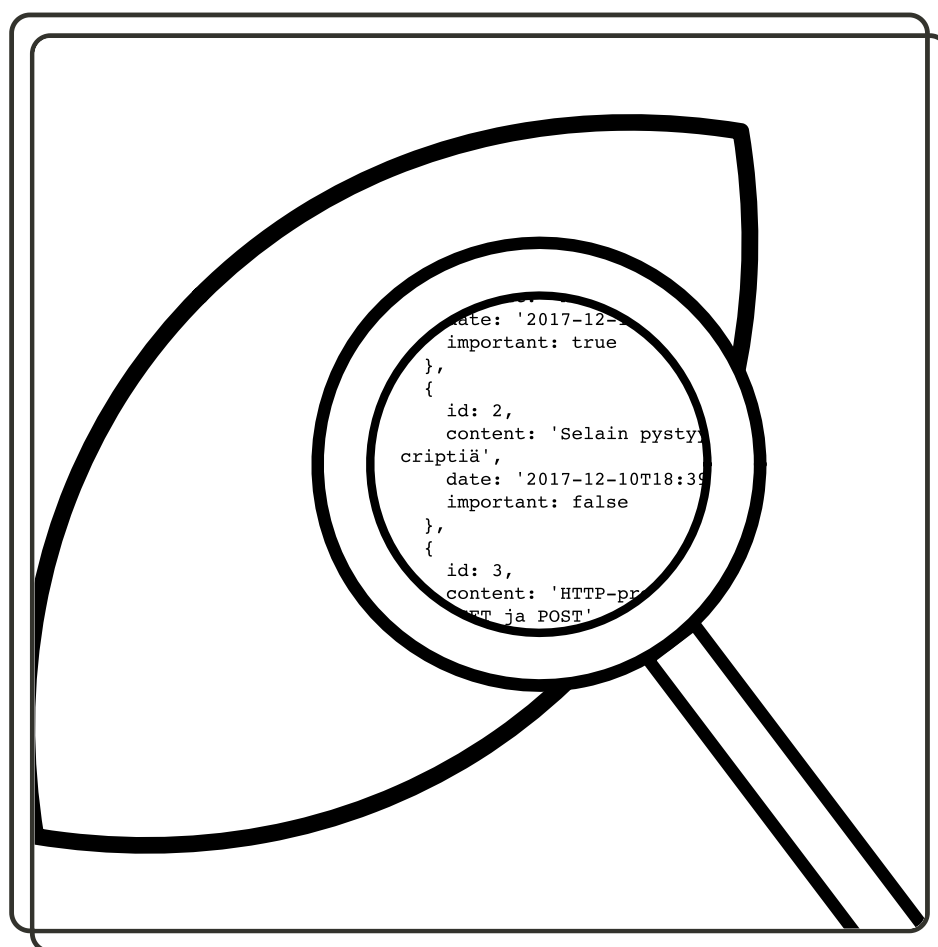
Part 3

Programming a server with NodeJS and Express



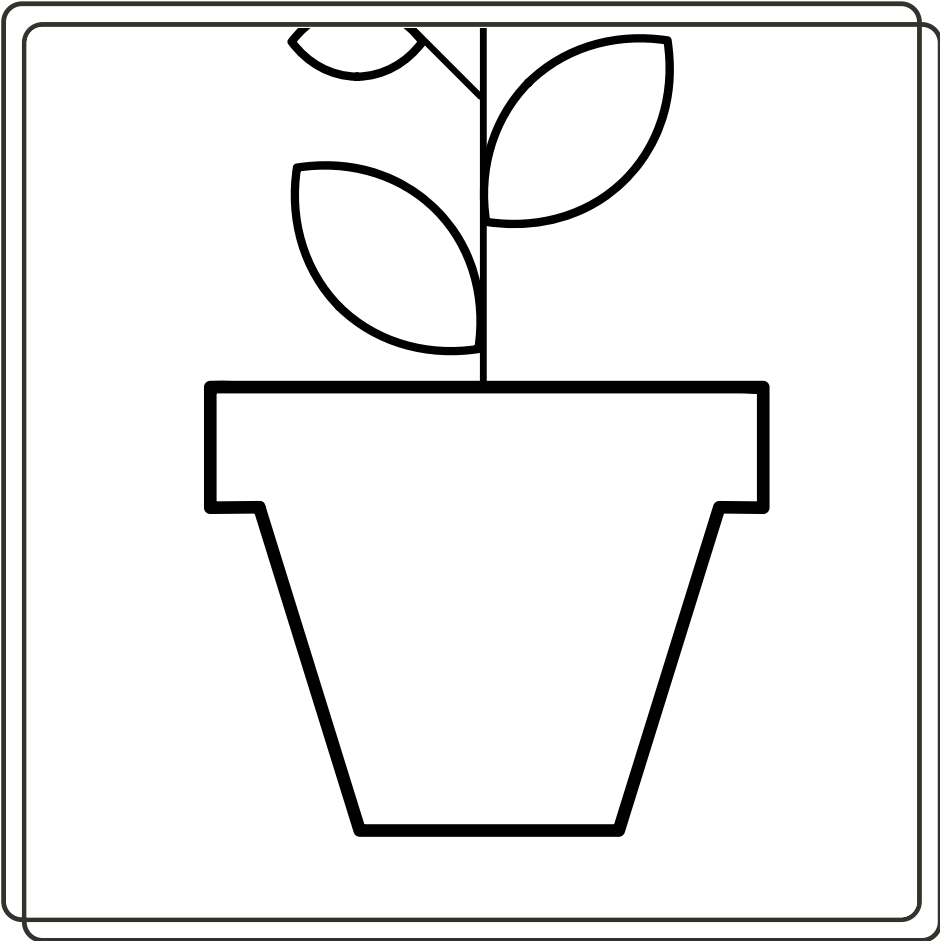
## Part 4

Testing Express servers, user administration



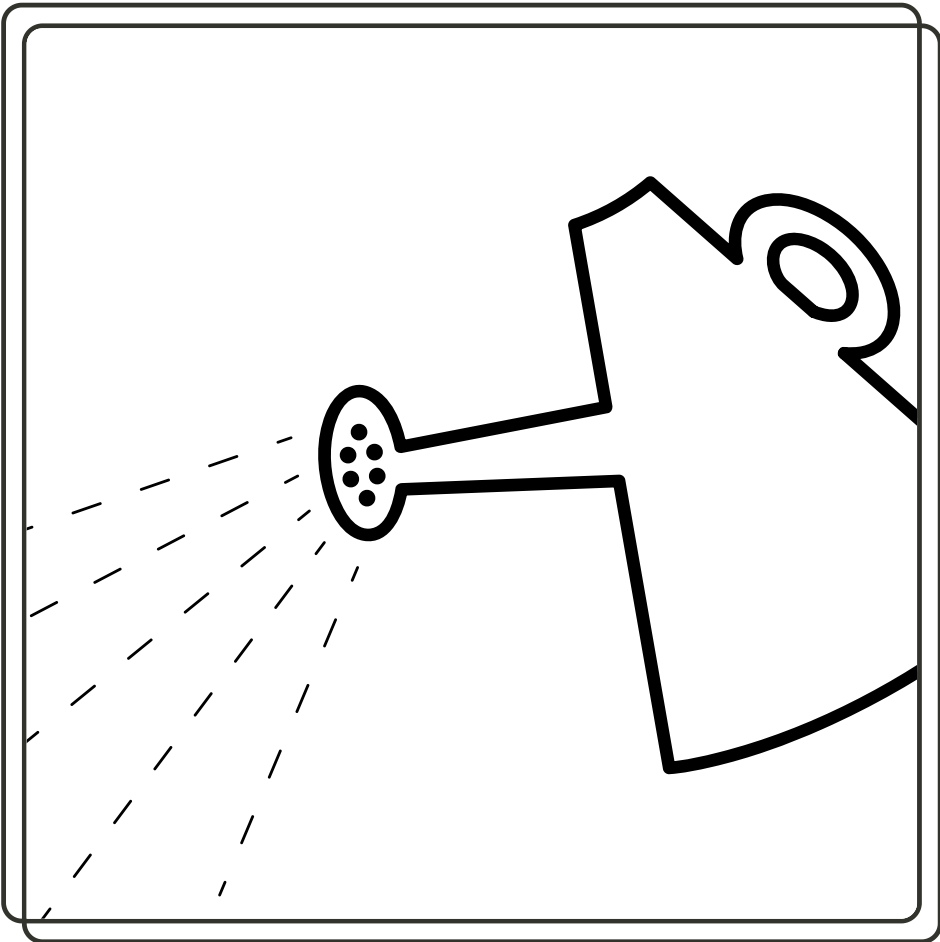
## Part 5

Testing React apps



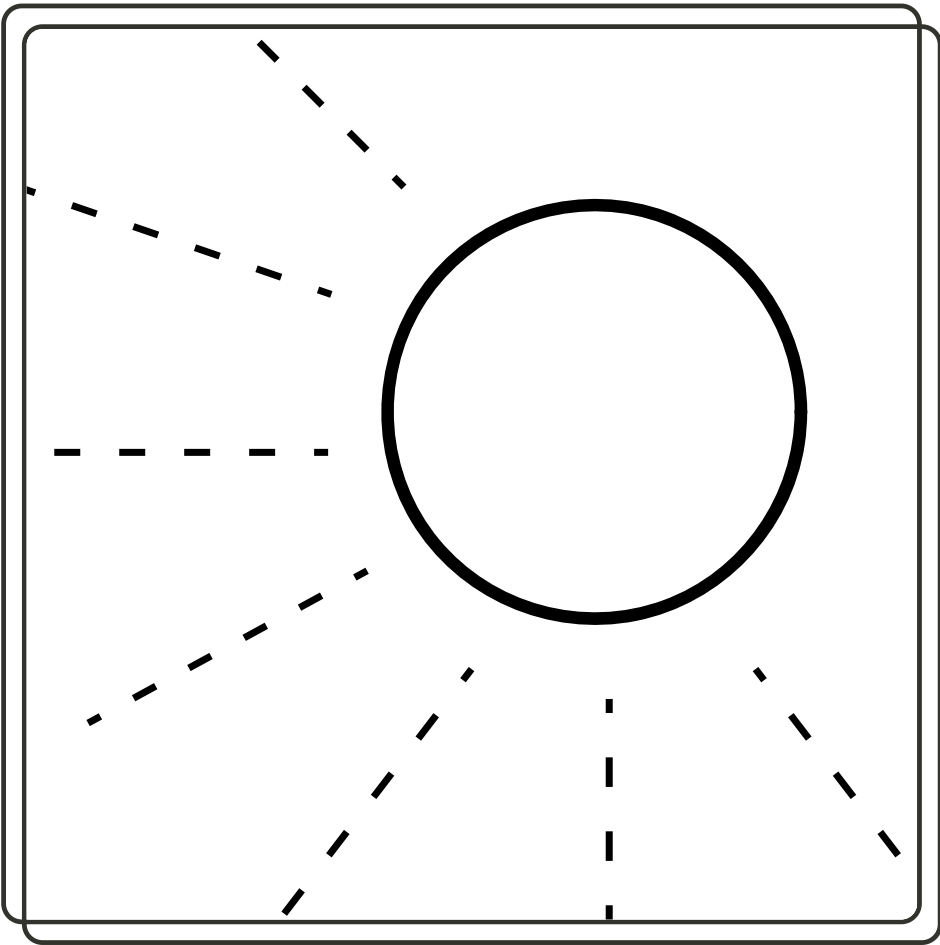
Part 6

State management with Redux



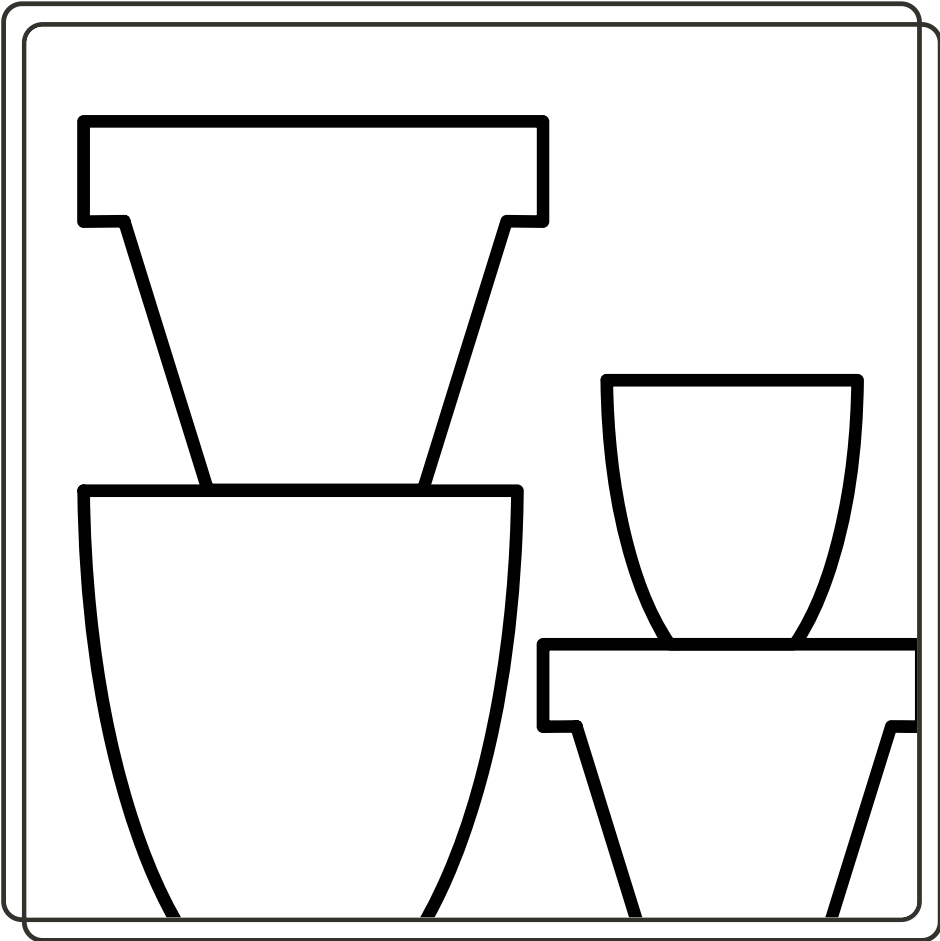
Part 7

React router, custom hooks, styling app with CSS and webpack



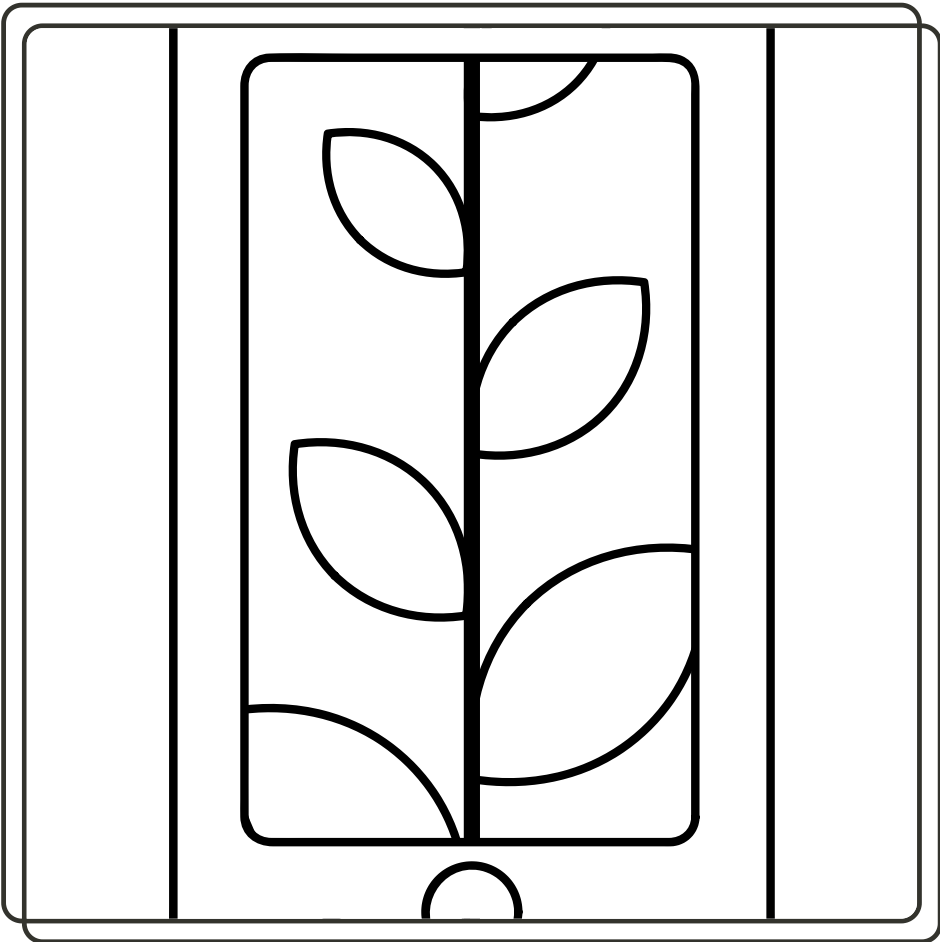
Part 8

GraphQL



Part 9

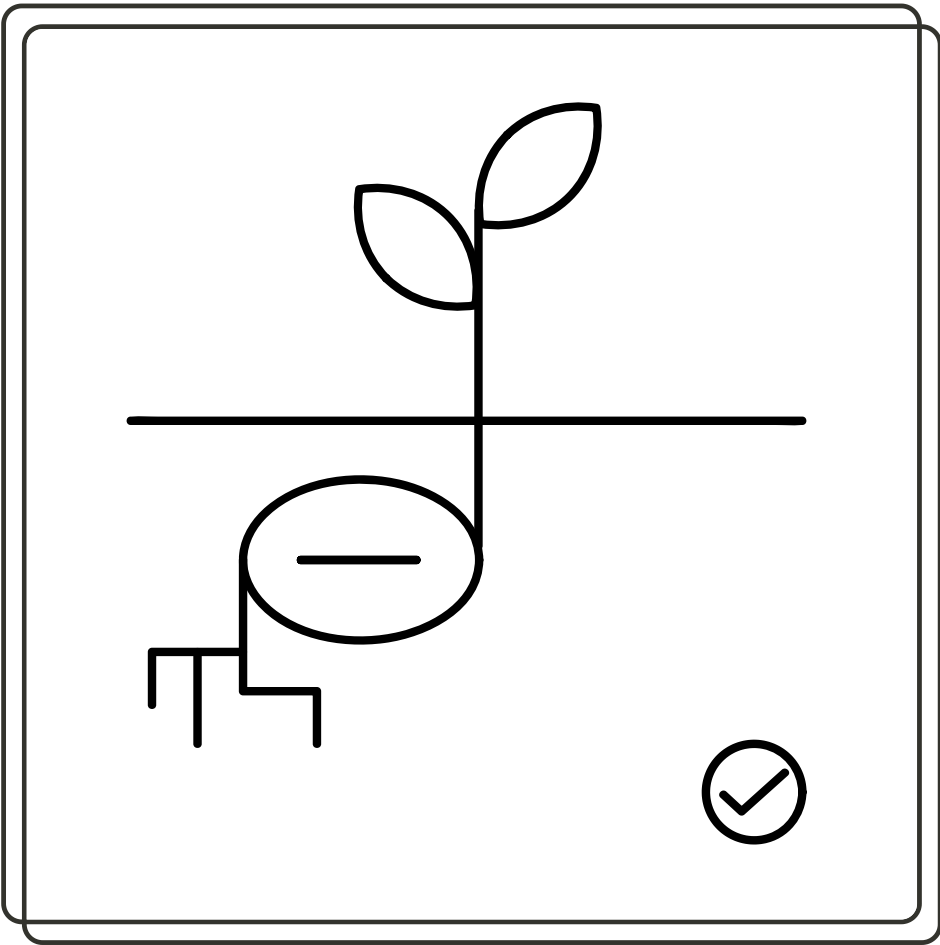
TypeScript





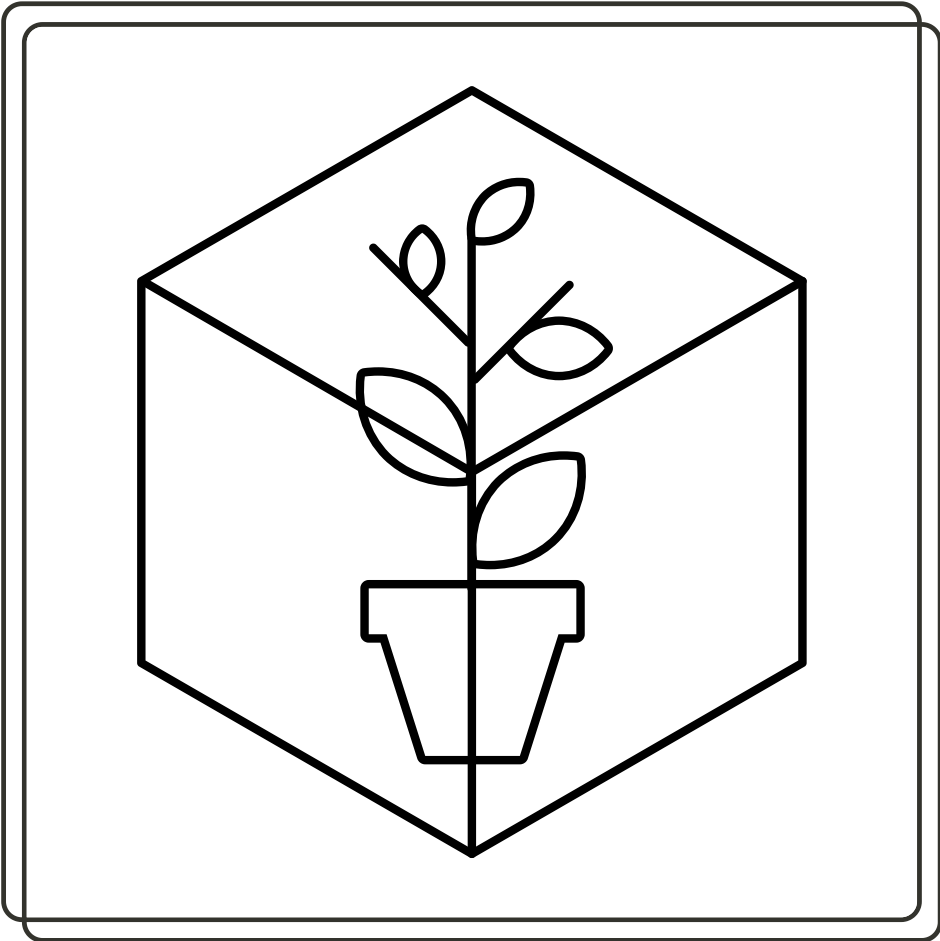
Part 10

React Native



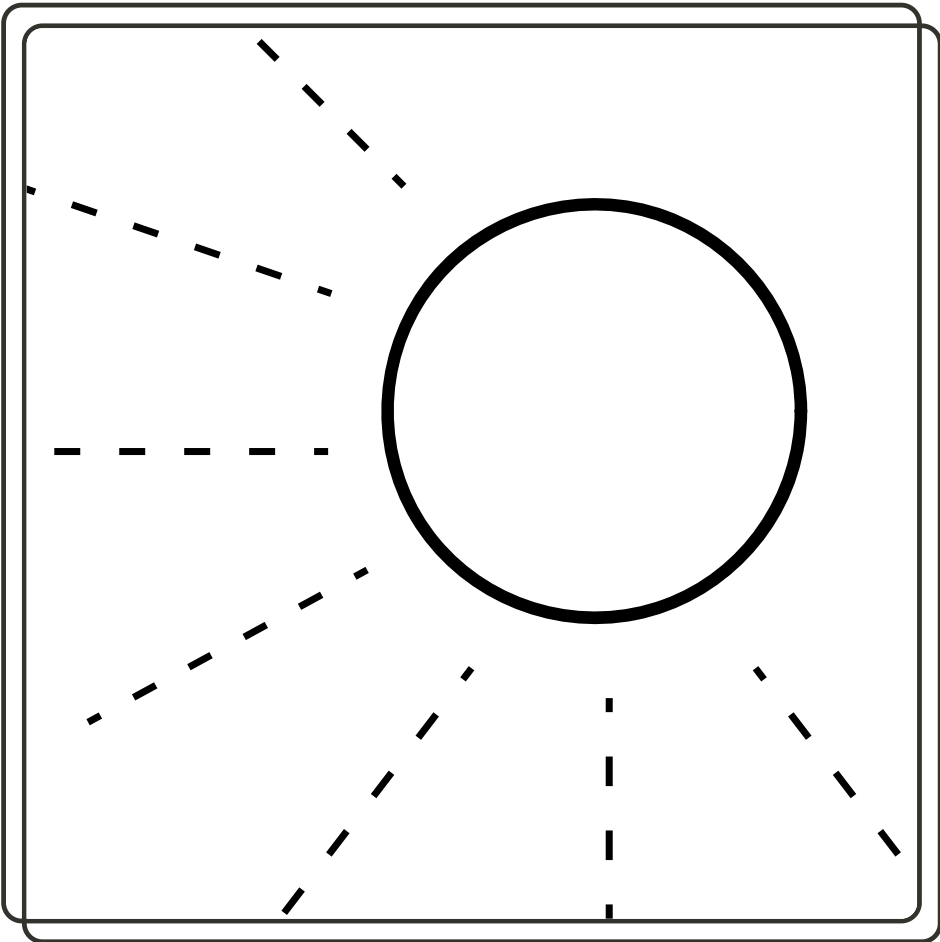
Part 11

CI/CD



Part 12

Containers



## Part 13

Using relational databases

In co-operation with





More about challenge



UNIVERSITY OF HELSINKI

The University of Helsinki is the oldest and largest science university in Finland, with an international scientific community of 40,000 people.





The Finnish Houston Inc. is an agile software company founded in 2003. We design and implement customized digital services for our business.

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