

Autogame Studio

Automation tool for board game design

1. Introduction

The goal is to create a web software module that automates board game design process and rule book writing. End users include game designers and game companies.

2. Project Goal

The end result is a working web application. The tool automates menial parts of game design, assists with rule book writing (suggestion AI), and formats design files for manufacturing specs.

There are 3 main software components:

1. Game design automation
2. Pattern matcher AI for rules writing assistance
3. Exporting design files to manufacturing specs

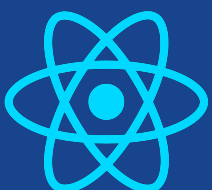
Learning outcomes

During the project you will learn:

- ❖ Software development in a real environment, covering all stages of the project, and communication with stakeholders and end-users
- ❖ Back-end / Front-end web programming
- ❖ Modern project management and version control tools (Git, Azure DevOps)
- ❖ UX & UI design

To support your learning, the client representatives is able to provide programming, domain knowledge and agile assistance as you need.

3. Technologies



Our Full Stack utilizes React in front-end, Scala in back-end and PostgreSQL as database. The software is deployed to Azure cloud service. We prepare the version control & project management system, for which we arrange training during Sprint 0. In addition, we provide technical assistance for these languages and technologies.

We have already set up the architecture and base case for the program, so the project is ready for feature implementations immediately. In general, we provide all the development software tools.

Technologies & Languages

- ❖ Front-end (React)
- ❖ Back-end (Scala in functional style)
- ❖ Database (PostgreSQL)
- ❖ Azure (Cloud platform)

4. Requirements for students

The only “requirement” is interest either in the game design or programming with Scala or React. It is possible to learn React during the course, and we are prepared to teach it. Our backend utilizes Scala, which students likely have familiarity with from prior courses already.

You can choose which language interests you the most, or try both.

Difficulty

Project base difficulty is moderate.

The difficulty can be scaled to demanding if the team wishes to tackle the challenging aspects of AI development. We will of course provide assistance like domain expertise.

Many features are adjustable, so the difficulty can be scaled even midway during the project.

Team language can be either Finnish or English.

5. Legal Issues

Client gets all IPRs to the results.

Confidentiality: The client will share some confidential information.

6. Client

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Autogame Studio is a startup focusing on developing game design tools, and it was founded around this project’s parent project. Our representatives are Jesper Hjorth and Emilia Ruha.

- ❖ Jesper Hjorth (Senior developer)
- ❖ Emilia Ruha (Frontend developer)

We have actual end-users & stakeholders present during later Sprint Reviews.

We can provide meeting rooms for the big Sprint meetings. We are open to discuss any possible needs of the team. And if the COVID situation relaxes we are open to provide workspaces in Otaniemi.

We are really excited about Autogame and we want to make this project your most memorable university course ever!

Preselected student members, we are open for more:

Saara Virkkunen, Simeoni Kangasmaa, Meri Teeriaho.

7. Students