BABEȘ-BOLYAI UNIVERSITY CLUJ-NAPOCA
FACULTY OF MATHEMATICS AND COMPUTER SCIENCE

SPECIALIZATION MATHEMATICS AND COMPUTER SCIENCE

DIPLOMA THESIS
Audio Streaming in React and .NET Core

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ABSTRACT

The paper aims to demonstrate how an audio streaming tool can be built using mainstream, state-of-the-art technologies like React and .NET Core. While these two tools were chosen for this paper's implementation, there are many popular tools which are able to deliver such functionalities, with vast communities of passionate users willing to provide any required support.

The first chapter proposes one of the many options for achieving the desired goal, while presenting pros and cons for other solutions.

The second chapter is split into three sections which present the application in theory, the decisions taken and technologies used to develop this thesis' tool. The first section lays out the client-server architecture used. The second section presents the backend, offering a technical description of the project structure, the way the blobs are being handled and served and of the architectural decisions taken. The last section goes in depth into the tools used to build the web application and into how unopinionated tools like React can be leveraged.

The third chapter showcases the example implementation of the application and provides a step-by-step description on how it was built. This includes a presentation of the design system used.

The last chapter is the author's conclusion regarding this paper's proposal towards solving the presented issue using the proposed tools. That includes a reflection on the developer's experience working with said tools.

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