PLANA (Planning of Assignments for Lecturers).

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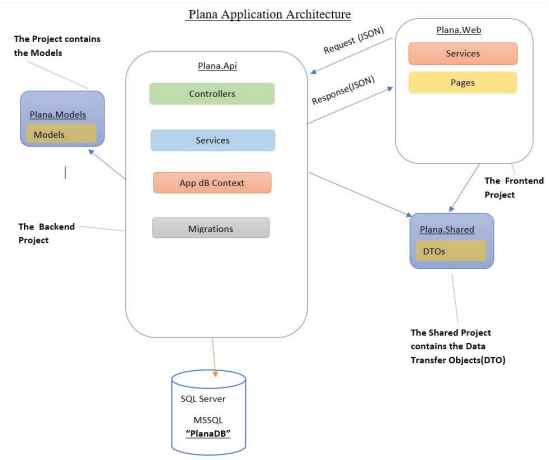
PLANA (Planning of Assignments for Lecturers) is a web application tool for effective teacher planning. With PLANA, teachers can participate in the planning process, make suggestions about the modules which they teach, and schedule hourly workloads for specific modules.

In this thesis, we improve the planning of assignments for lecturers by implementing a web application using ASP.NET Core Blazor. We also describe the application's system architecture and system design and perform domain analysis.
Additionally, we justify our choice of implementing PLANA as a web application by exploring the advantages of web applications over Microsoft Excel solutions and desktop applications.

Introduction

At our school at the Department of Technology and Computer Science, teacher assignment planning is done using Microsoft Excel. This plan is handled by one person. In the modern world, with the rapid growth of new technologies, it is possible to improve various systems, giving them more and more possibilities, automating many functions and saving a lot of time. This thesis aims to develop an information system that eases assignment planning for lecturers. But unlike the existing system, it should fulfill the following criteria.

- The teachers themselves should be involved in the planning process
- The ability to create groups of modules and groups of teachers
- Increased planning flexibility



Plana Application Architecture

The Plana application uses a layered **architecture** and its design is partially based on the domain-driven design (DDD) pattern from Eric Evans. In this application, however, the business logic is in the Service layer and the Repository layer is not used.
In a previous project, we researched **ASP.NET Core Blazor**. Blazor's main advantage over other frameworks is that it allows the developer to write the entire program using only C#.

Conclusions

The technologies that we used for the project are fully suited to the goals. ASP.NET CORE Blazor is easy and intuitive to use.
In this thesis, we have achieved the following goals.

- The teachers are involved in the planning process
- The ability to create groups of modules and groups of teachers
- The person responsible for planning is able to make concrete and provision plans for several years.

Thus, the development went through all phases of product creation, namely:

- Analysis of trends in new technologies
- Elicitation of customer requirements
- The idea of creating a product based on selected technologies and concepts
- Product implementation
- Product testing

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