

OASYS

Online Attendance System for Universities

Ertuğrul SAĞDIÇ – 150116061
Melisa DÖNMEZ – 150116030

1. INTRODUCTION

The project is to provide a online platform to improve attendance process in classes. In addition, it improves the connection between lecturer and students.

This design document presents the designs used or intended to be used in implementing the project. The designs described, follow the requirements specified in the Software Requirements Specifications document prepared for the project.

a. Purpose

The purpose of this document is to present a detailed description of the Online Attendance System (OASYS). This document can be used for designers who try to understand the general design of the project. Throughout the document design assumptions, considerations and system environment, architectural system design, and class diagrams will be explained in detail.

b. Scope

This document gives a detailed description of the software architecture of the Online Attendance System. It specifies the structure and design of some of the modules discussed in the SRS. It also displays some of the use cases that has transformed into diagrams. The intended audience is the ones who will implement the project, hence it is aimed that this document to be a guideline for those developers.

c. Definitions

OASYS – Online Attendance System

SRS – Software Requirement Specifications

Android – An operating system which works on mobile devices

IOS – An operating system which works on Apple devices

OS – Operating System

Windows – An operating system

d. References

Software Requirements Specification, OASYS. Last modification: April 10, 2020.

Design Specification Document, MUMA

Craig Larman, Applying UML and Patterns: An Introduction to Object-Oriented Analysis and Design

and Iterative Development (3rd Edition), Prentice Hall.

2. DESIGN CONSIDERATIONS

a. Design Assumptions

It is assumed that users have smart devices and have enough knowledge to use it. Application can operate on smart devices with android operating system, iOS operating system. It is assumed that the students use the OASYS have the code for participating the class in the system.

b. Design Considerations

The system is implemented using React Native. Also, need for android or iOS operating system.

c. System Environment

Application will be developed on Windows and Mac OS while using Visual Studio IDE. In addition an android or IOS emulator or device will be used during development. The system is accessible through and android or IOS device accessible at all time.

3. SYSTEM DESIGN

a. Architectural System Design

The block diagram below represents the principal operational parts of the system and their interactions.

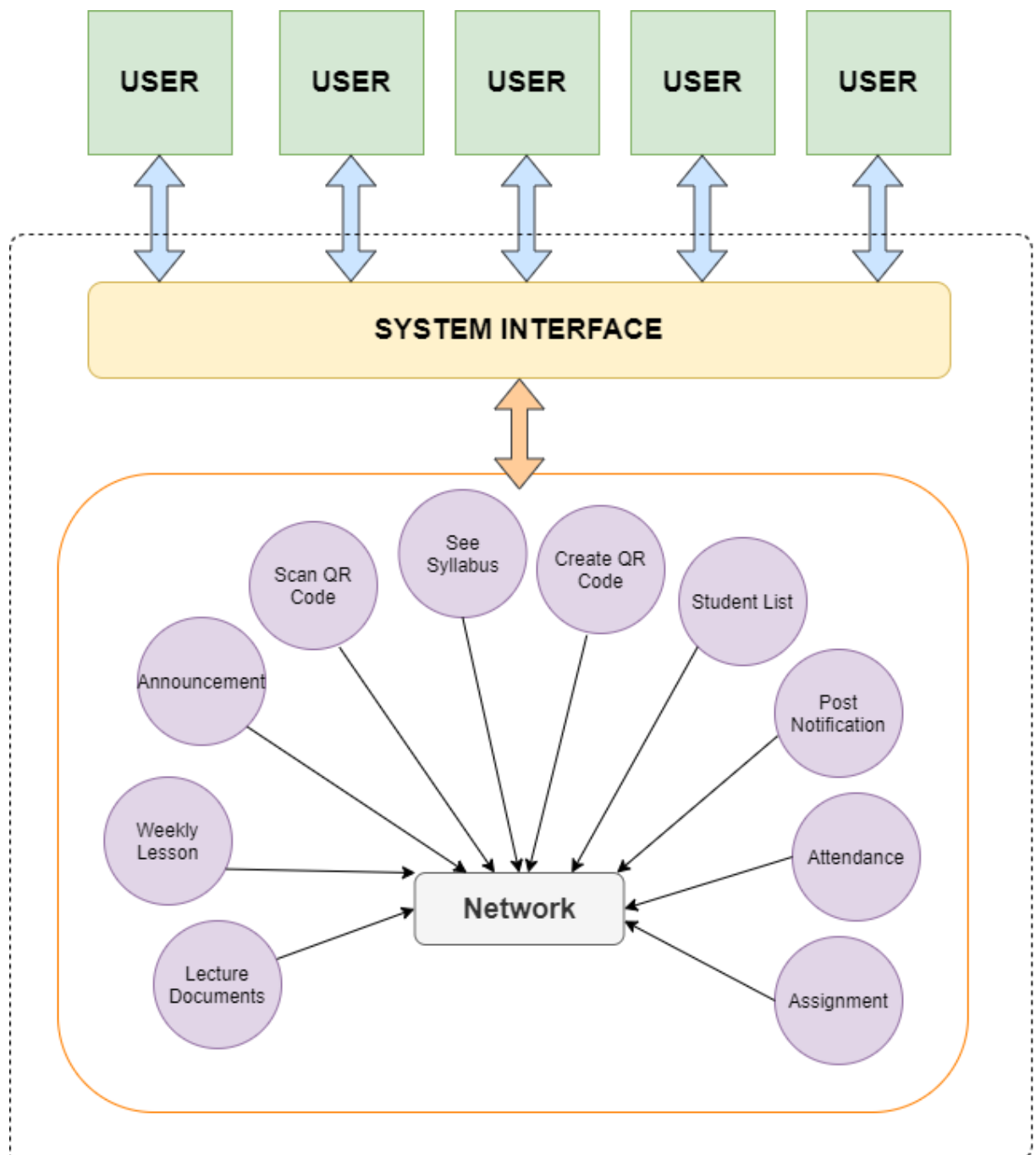


Figure 1. Block diagram for OASYS

The context diagram shows the main actors interacting with the system.

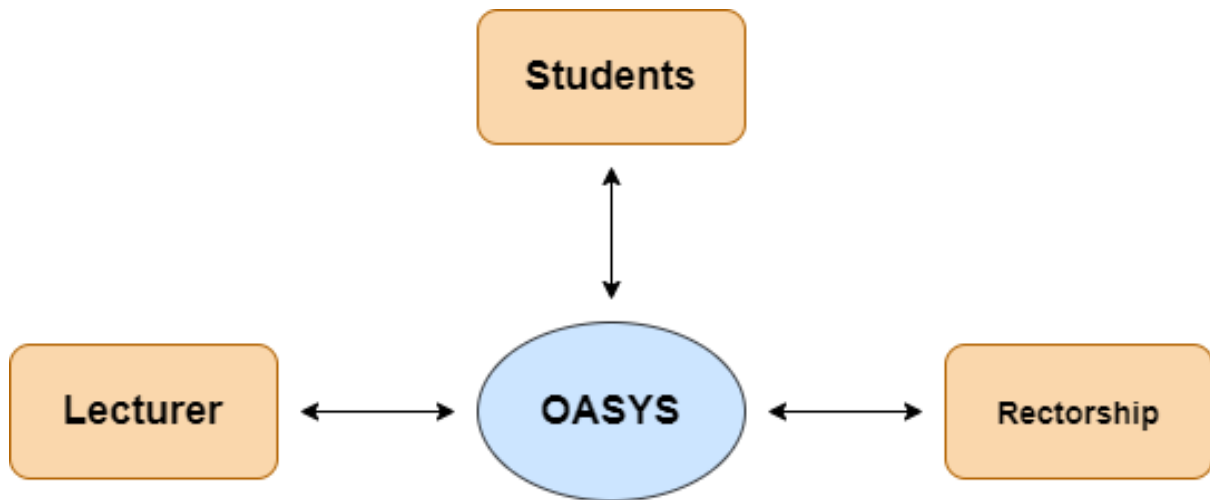


Figure 2. Context Diagram of OASYS

b. System Decomposition

The diagram below represents whole system as a decomposed version. The purpose is to show all the processes and identify relationships and dependencies among them. User need to log in to system in order to use it. If user has no account, user should sign up. After logging in, user can reach the rest of the components, with his/her accessibility.

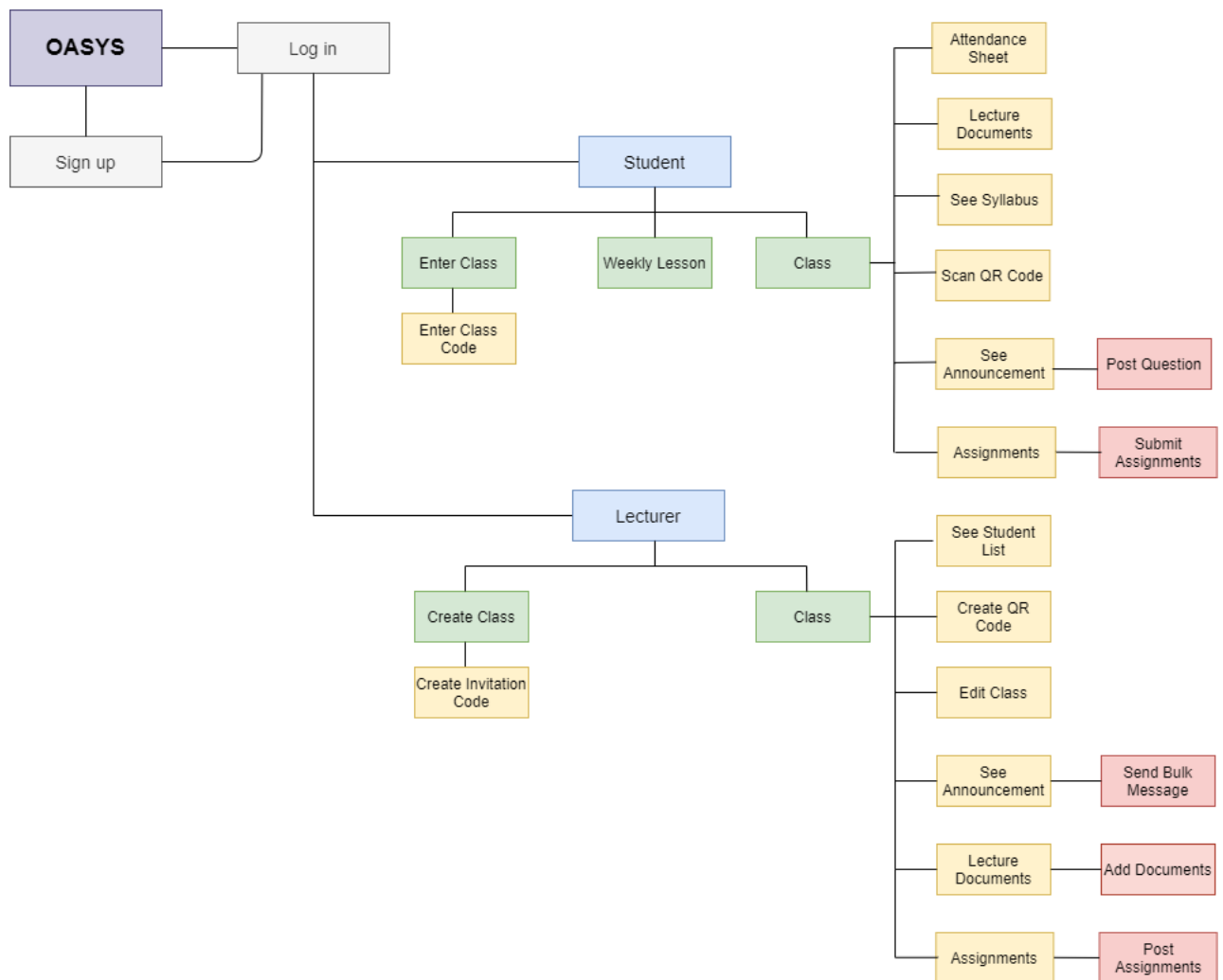
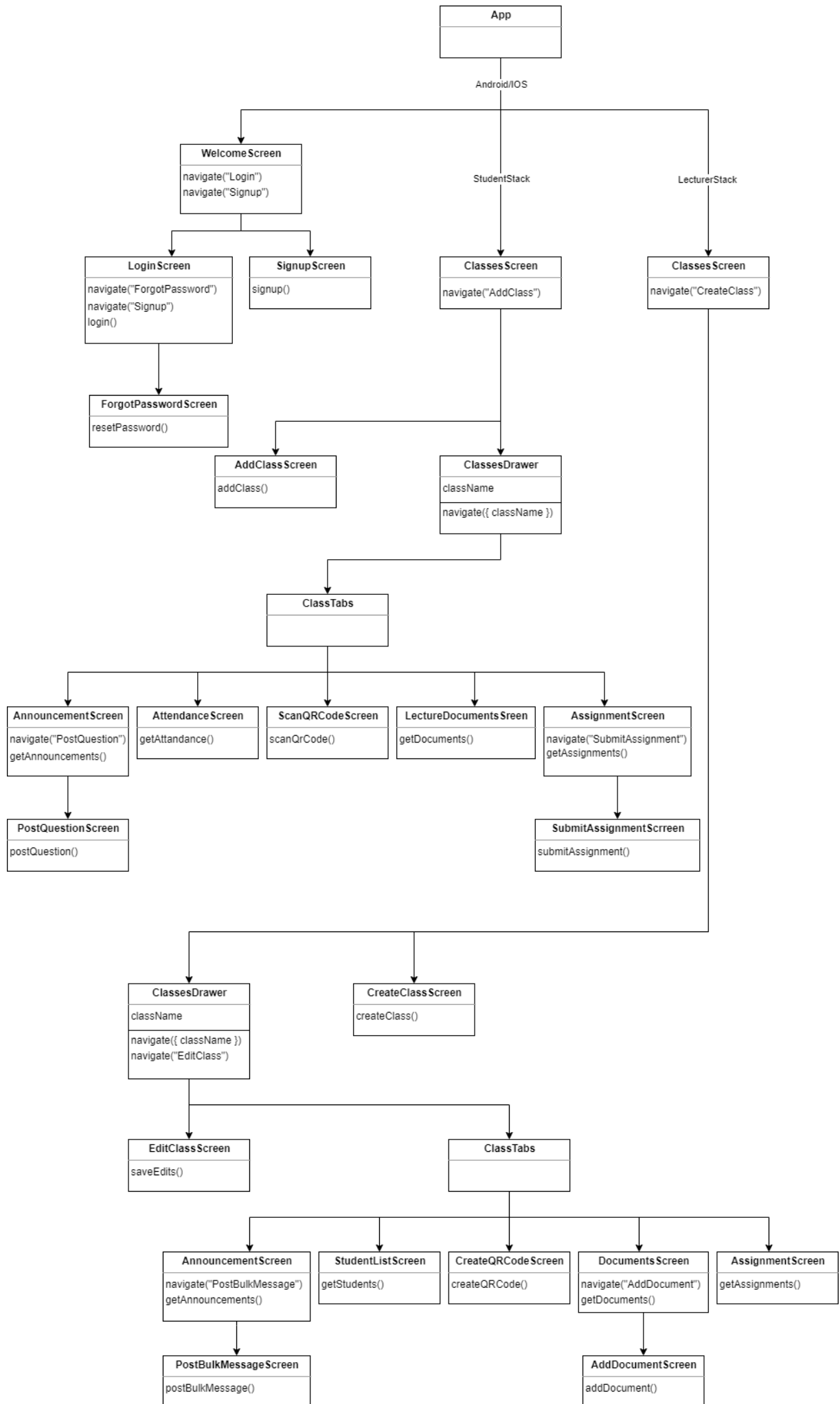


Figure 3. Decomposition Diagram of OASYS

c. Class Diagram



4. CONCLUSION

In conclusion, Detailed Design Report for OASYS gives the definition, purpose and scope of the project. The possible system design is explained. The tools that will be used during developing the project are decided. Block diagram, context diagram, decomposition diagram, and class diagram given within the document.

Ertuğrul Sağdıç	Introduction, Class Diagram, Conclusion
Melisa Dönmez	Design Consideration, System Design (Block Diagram, Decomposition Diagram, Context Diagram)