MARMARA
UNIVERSITY

Course Diary

Design Specification Document

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INDEX

1. INTRODUCTION

a. PURPOSE

While we are designing the project, we aim to ensure that the user is comfortable to use and adapt to the working principles of the applications we use in our daily life. We aimed to design an interface in which you can easily manage your scheduled education life which requires saving necessary and important course materials to access them easily when they are needed.

b. SCOPE

This Design Specification Document is to be used by developers as a definition of the design that shall be used to implement the Android application “Course Diary”.

c. DEFINITIONS, ACRONYMS & ABBREVIATIONS

Course Diary - Project name
GUI - Graphical User Interface
UI - User Interface
Android - It is a free and Linux based operating system developed by Google and Open Handset Alliance for mobile devices. Even though the system is open source, a small but very important part of its code is kept closed by Google.
Android Studio - Android Studio is the official programming tool and recommended by Google for Android applications. It has high-level and effective features.
Application - The application is software that is developed through application development languages for a specific computer architecture, allowing computers to be used in a variety of jobs.
Room/Room Library/Room Database - Room is a library that simplifies database operations in Android applications.

Course The name of the student's courses in the curriculum.
Audio- The student's voice recordings during the course.
Photograph- Photos of the students about the course.
Attendance- Knowledge of whether the student attends the class.
Document- All notes related to the course.

d. REFERENCES

- **Android Studio:** https://developer.android.com/studio/index.html
- **Genymotion:** https://www.genymotion.com/
- **Room Database:** https://developer.android.com/topic/libraries/architecture/room
- **Project’s GitHub repository:** https://github.com/yildirimozge/cse3044spring2019p1_bsenkus_syalcin_oyildirim

2. DESIGN CONSIDERATIONS

When designing this project, we have some considerations about environment of development and target devices.

a. ASSUMPTIONS

- It is assumed that the application will not work with a large number of courses and semesters (over a thousand) to facilitate implementation.
- It is assumed that courses which have attendance obligation have “attended”, “absent” and “cancelled” options to define attendance status.
- The GPA calculation of the courses will be based on the coefficients specified by the user.

b. CONSTRAINTS

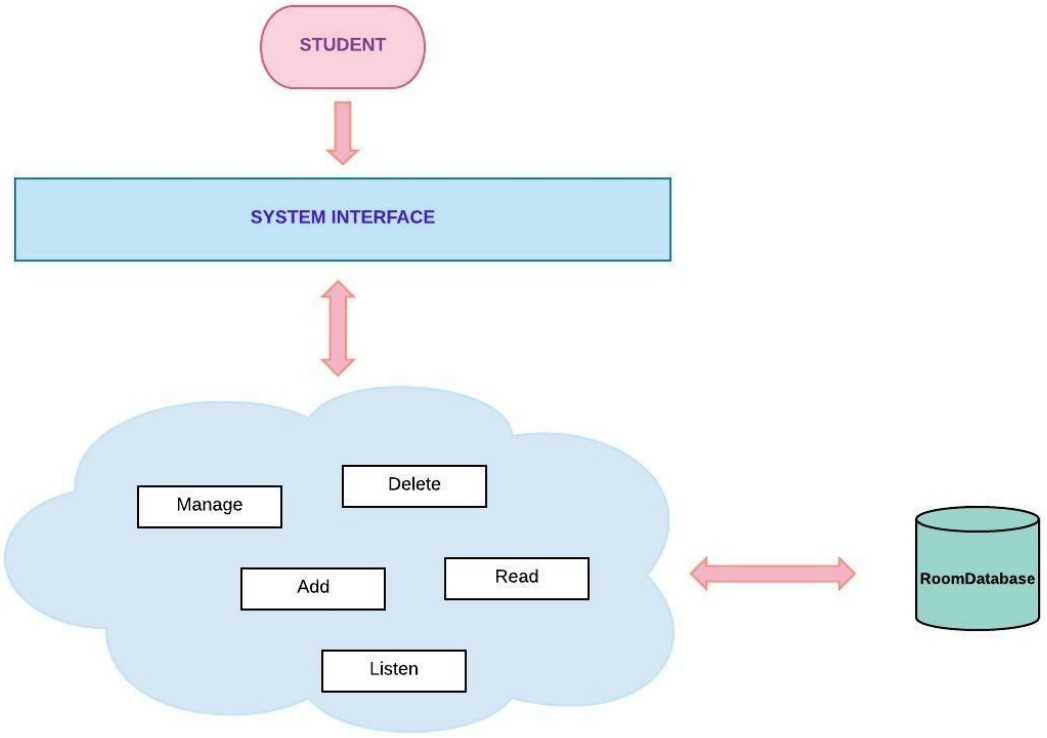
- The application will run on devices with Android 5.0+ operating systems because of its high usage rate and practicality.
- For the feature of adding media to the lesson, which is a basic feature of the program, a device with camera and microphone support should be used.

c. SYSTEM ENVIRONMENT

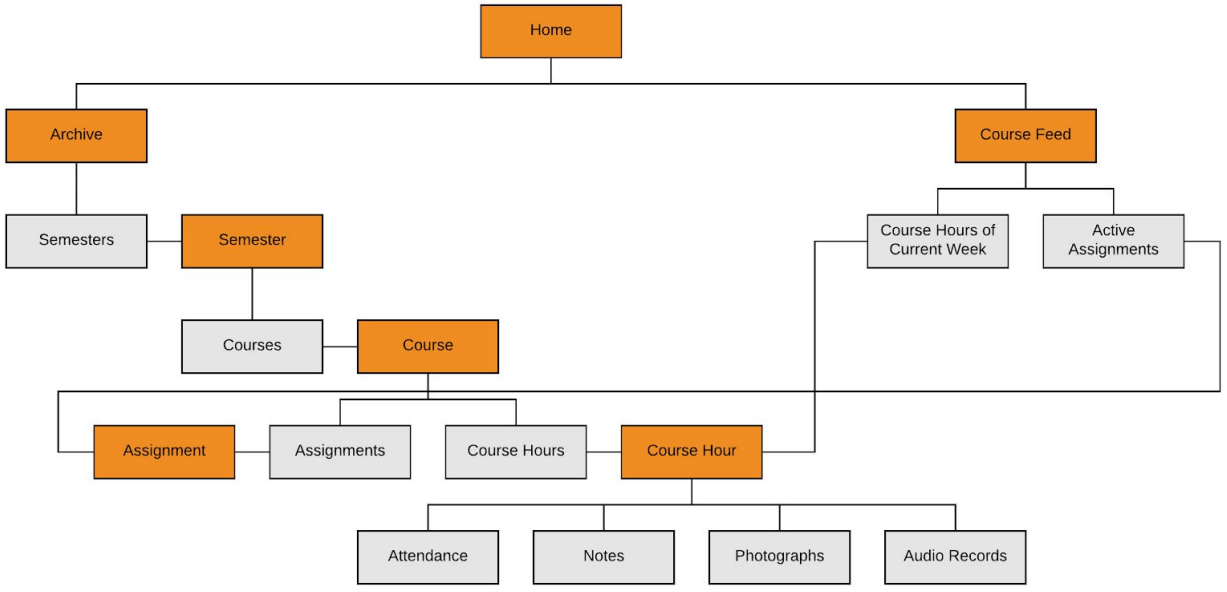
In terms of development environment, our program will be implemented on Android Studio with Java SDK and an Android Emulator (preferably Genymotion) installed on a Microsoft Windows 7 or higher operating system. Each team member has to have minimum hardware requirements be able to run the highest version of Android Studio in their computers. Moreover, Android Studio must be integrated with GitHub version control system with repository referenced in *References* section.

3. SYSTEM DESIGN

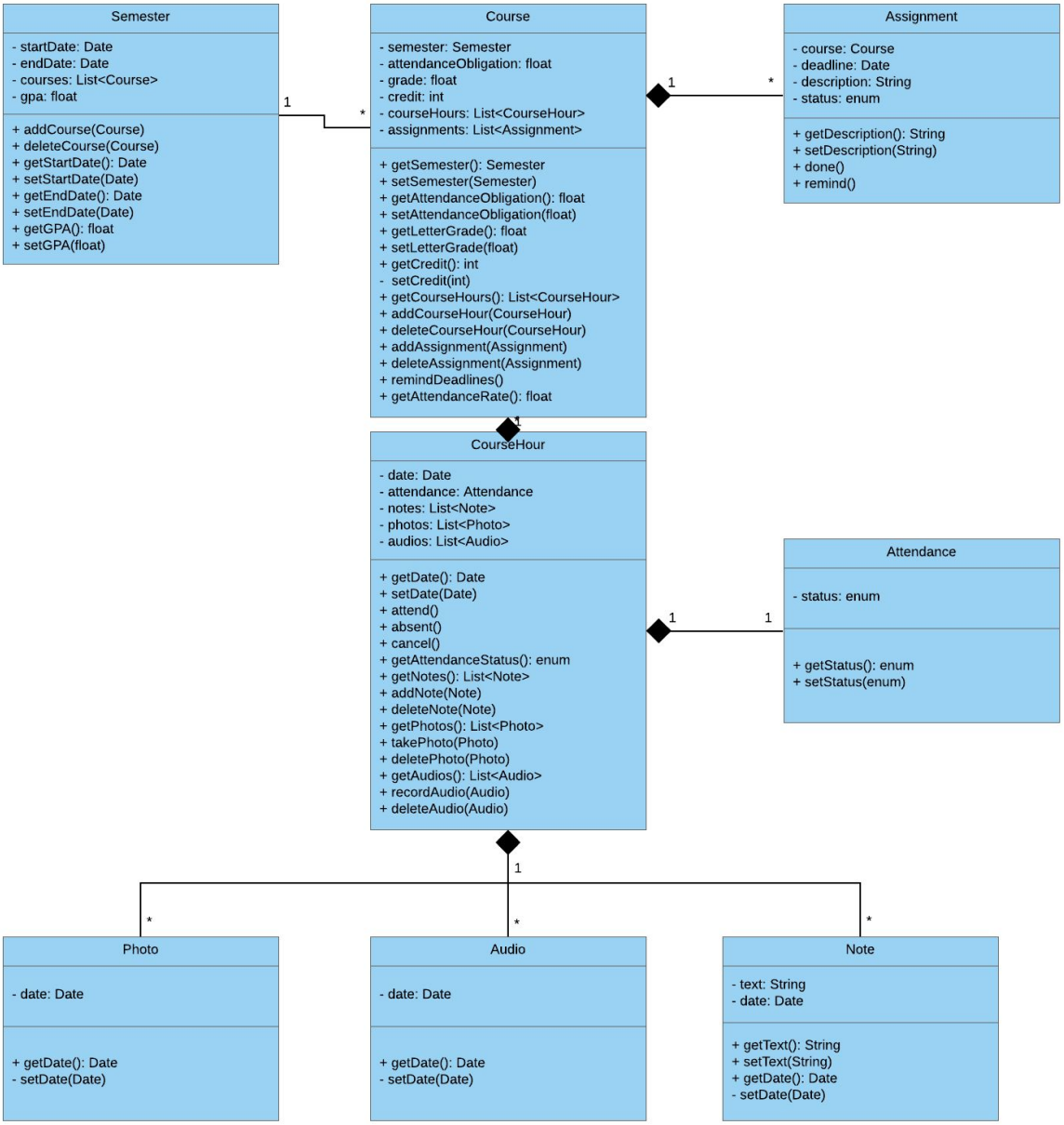
a. ARCHITECTURAL SYSTEM DESIGN



b. SYSTEM DECOMPOSITION



c. CLASS DIAGRAM



4. CONCLUSION

In summary, the application will run on devices that have Android 5.0+ OS. The application will have the highest possible ease of use and practicality as the it requires quick interaction during classes. All graphical components will be self-explanatory and easily accessible.

Burak Şenkuş	1.b, 2.a, 2.b, 2.c, 3.b, 3.c, 4
Sergen Yalçın	1.c, 1.d, 3.b, 3.c
Özge Yıldırım	1.a, 1.b, 1.c, 1.d, 2.a, 2.b, 2.c, 3.a, 4