

Class Attendance Mobile App

Software Architecture

Submitted to:

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In partial fulfillment of Academic Requirements
for the course
CS 191 Software Engineering I
of the
1st Semester, AY 2017-2018

Revision Control

History Revision:

<i>Revision Date</i>	<i>Person Responsible</i>	<i>Version Number</i>	<i>Modification</i>
11/29/17	Arielle Gabriel	1.0	Initial Document
12/01/17	Ronnel Austria	1.1	Filled out the remaining tables

Purpose:

This document provides information on the project's software architecture.

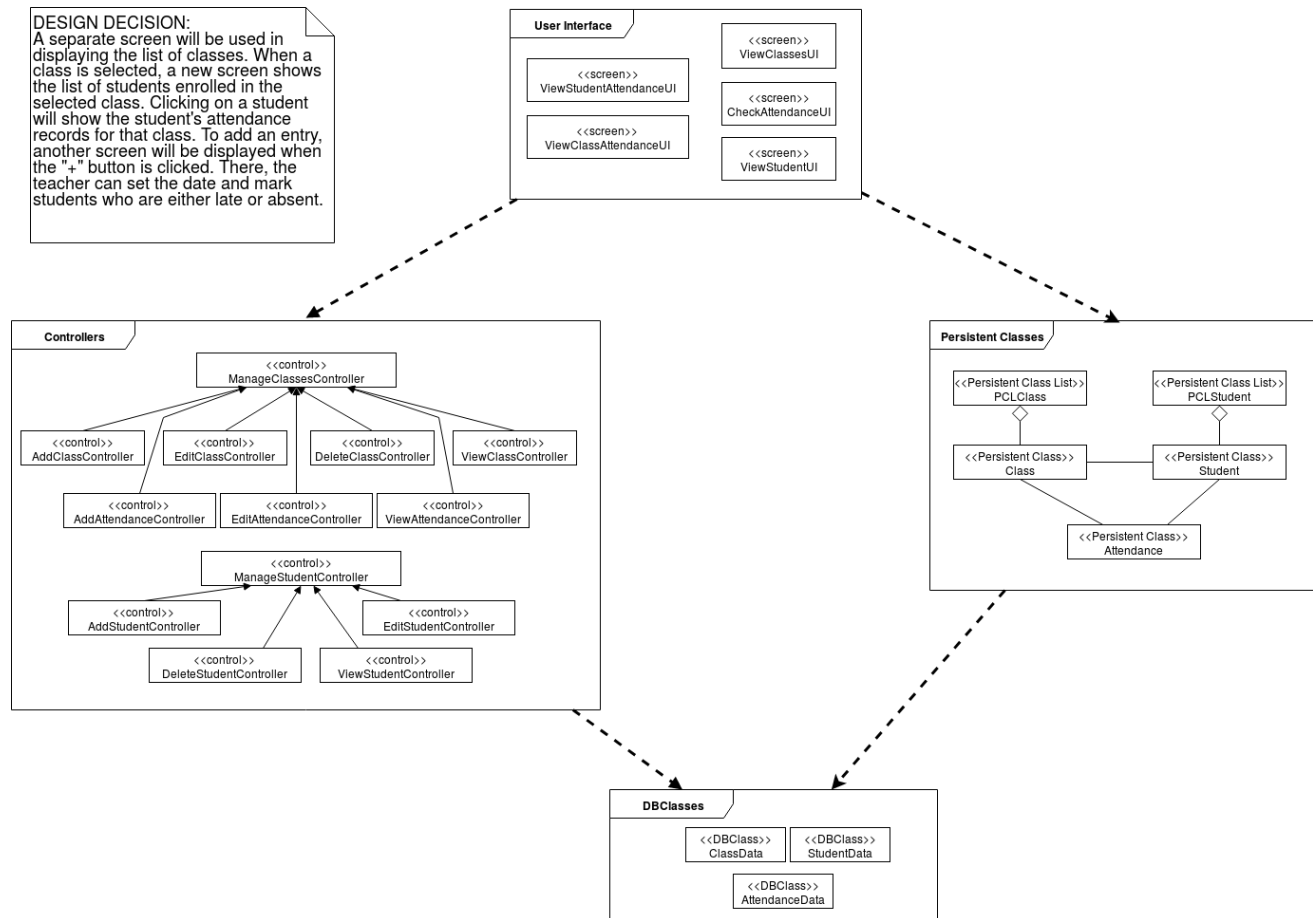
Audience:

The target audience of the document are: the developers of the software, future developers who wish to extend it, and the professor.

System Name: Class Attendance Mobile App

Description: Class Attendance Mobile App is a mobile application that allows the teacher to record the attendance of the students digitally using a smartphone. The user will be able to see the attendance record of the class, the student, and be notified if a student is about to reach the maximum allowable absences. This project is an extension of the previous CS191-192 project Attendance Checker (<https://github.com/CrowCakes/Attendance-Checker>)

Software Architecture Diagram:



User Interface Design Classes:

Screen Name	Description
ViewClassesUI	This interface allows the teacher to navigate through the class list and selects a class to view. Once a class is selected, it sends a signal to ViewClassController to retrieve details of the selected class.
ViewStudentsUI	This interface allows the teacher to navigate through the student list in a class. The teacher can select a student to view and this sends a signal to ViewStudentController to retrieve details of the selected student.
ViewClassAttendanceUI	This interface allows the teacher to navigate through the class list and select a class to view the attendance record of that class. Once a class is selected, it sends a signal to ViewAttendanceController to retrieve the details of the attendance record of the selected class.
ViewStudentAttendanceUI	This interface allows the teacher to navigate through the student list and select a student to view the attendance record of that student. Once a student is selected, it sends a signal to ViewAttendanceController to retrieve the details of the attendance record of the selected student.
CheckAttendanceUI	<p>This interface allows the teacher to manage the attendance of the Students in a Class. The teacher can add new attendance and the entry should be "Present" by default. The teacher can choose to mark a Student "Late", "Absent", or retain the "Present" entry. This sends a signal to the AddAttendanceController.</p> <p>The teacher can also update an existing attendance record. This sends a signal to the EditAttendanceController which handles updating of Attendance records.</p>

Business Logic Classes:

Control	Description
ViewStudentController	This controller retrieves the data of a selected Student in a class. This includes the Student's name and student number.
ViewClassController	This controller retrieves the data of a selected Class in the class list.
AddAttendanceController	This controller adds a new entry of Attendance for a given Student in a given Class at a given date.
ViewAttendanceController	This controller retrieves the Attendance record.

Data Design Classes:

Class Name	Description
Class	This contains the classes added by the teacher. Each class entry has following attributes: ID that is auto incremented, name which usually the course name, and a text description about the course (whether it is the class schedule, room, etc).
Student	This contains students identified by their student number and the class that they are enrolled in. Each student entry has following attributes: class id that is the same as the ID from the Class class, student number without a hyphen, and the student's last name and first name.
Attendance	This contains the attendance record identified using the class id, the student number, and the date. Each attendance entry has following attributes: class id that is the same ID as it is in the Class class, student id from the Student class, date which is the day of the attendance record, and entry whether the student is late, absent or present represented by ``L``, ``A``, and ``P`` respectively.