

Attendance Checker

Data Design Document

Submitted to:

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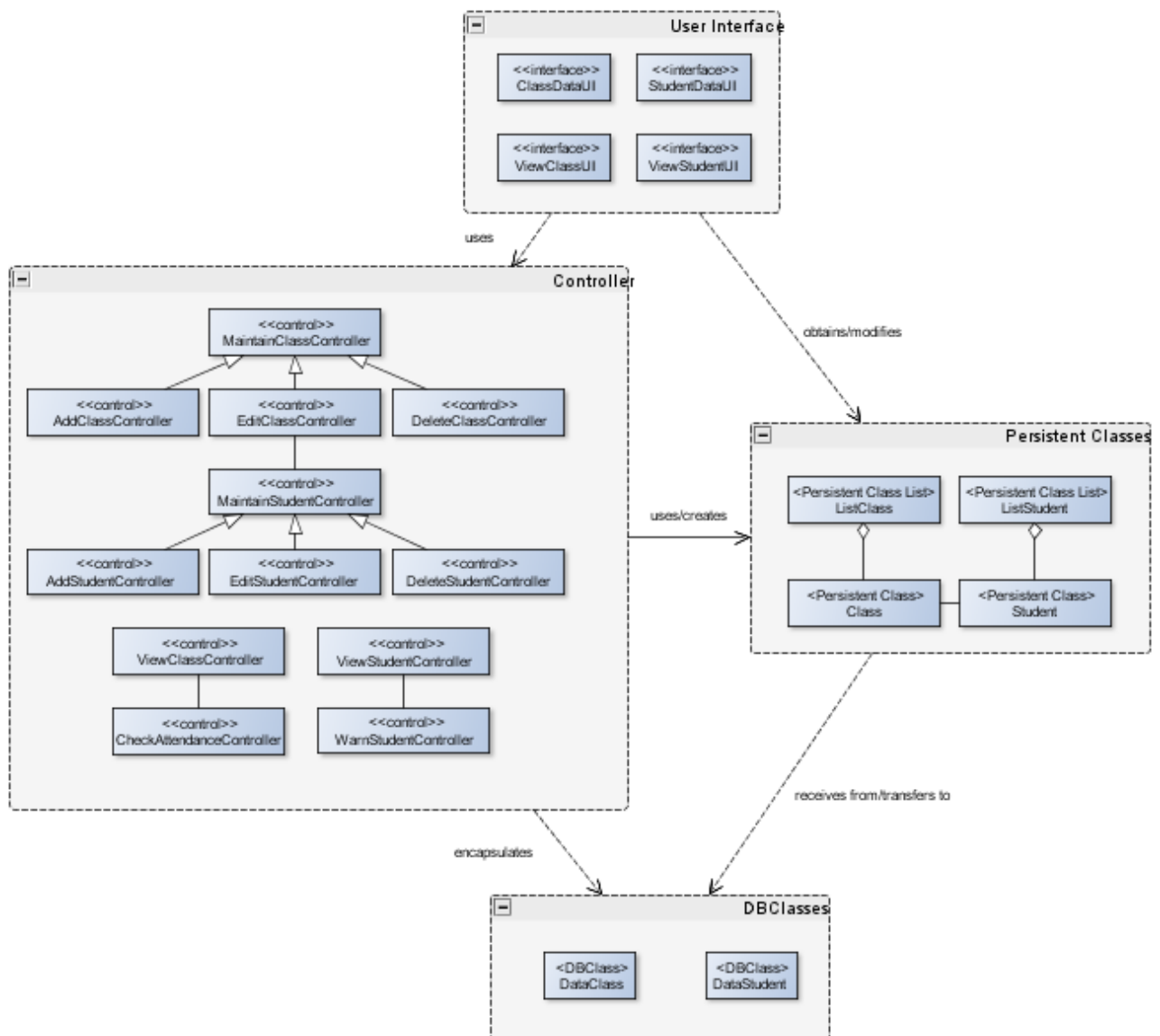
In partial fulfillment of Academic Requirements
for the course
CS 191 Software Engineering I
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Revision Control

History Revision:

<i>Revision Date</i>	<i>Person Responsible</i>	<i>Version Number</i>	<i>Modification</i>
11/14/16	Jeremy Micah Choa	1.0	Initial Document; Version number should match the one found in the footer.

Data Design:



Data Access Object (DAO) Classes:

Class Name	Description
MaintainClass/StudentController	Umbrella grouping for Add, Edit, and Delete Class/Student.
AddClass/StudentController	<p>Creates a persistent object Class/Student, supplies it with Class/Student details taken from ClassDataUI/StudentDataUI, and then passes it to DataClass/DataStudent to create a new Class/Student.</p> <p>Only AddClassController can call on AddStudentController to generate the list of students in the new Class.</p>
EditClass/StudentController	<p>Creates a persistent object Class/Student, supplies it with Class/Student details taken from ClassDataUI/StudentDataUI, and then passes it to DataClass/DataStudent to update the specified Class/Student.</p> <p>Only EditClassController can call on EditStudentController to update the students in the specified Class.</p>
DeleteClass/StudentController	Passes the intent to delete a specified Class/Student to DataClass/DataStudent in order to actually delete the specified Class/Student.
ViewClass/StudentController	<p>Creates a temporary class Class/Student to be populated with the specified Class/Students, and then passes it to DataClass/DataStudent to supply the specified Class/Data details.</p> <p>ViewClassController will additionally create a temporary list for Students to populate it with the Students in that Class.</p>
CheckAttendanceController	Creates two temporary lists for Students to populate them with Students whose attendance statuses for a certain Session are classified into Present or Absent AND who all belong to the specified Class, and then passes it to DataStudent to retrieve the qualifying Students.
WarnStudentController	Creates a temporary object Student to fill it with the specified Student's details retrieved by DataStudent, then prepares a message to send to the Student's contact detail using the data gathered in the temporary object Student.

TransferObject Classes:

Class Name	Description
DataClass	DataClass is in charge of adding Classes, editing Class details, and deleting Classes. Adding or editing Classes needs a provided Class name, number of sessions, and a list of Students. In the case of editing Classes, individual entries within the list of Students can be updated.
DataStudent	DataStudent is in charge of adding Students, editing Student details, and deleting Student. (This all takes place in the context of a Class.) Adding and editing Students requires a provided Student name, unique ID, and contact detail.

List of Data Source:

Data Source Name: greenbook.csv

Description: The comma separated details of Classes and their Students.

Sample Source File:

```
0,Sample Class 1,-1,0
```

```
CHOA Jeremy Micah,201440997,jeremychoa@gmail.com,0
```

```
1,Sample Class 2,14,2
```

```
CHOA Jeremy Micah,201440997,jeremychoa@gmail.com,1,2,1
```

Sample Tables from the Database:

Class

Name	Sessions	StudentListKey
VARCHAR(100)	SMALLINT	SMALLINT
X(100)	99	99
Sample Class 1	-1	0
Sample Class 2	14	1

Student

Name	Unique ID	Contact Detail	AttendanceKey
VARCHAR(100)	VARCHAR(100)	VARCHAR(100)	SMALLINT
X(100)	XX99(100)	XXXX9999@XXXXX.XXXXX	99
CHOA Jeremy Mi-cah	201440997	jeremychoa@gmail.com	0

Attendance

Session Number	Status
SMALLINT	SMALLINT
99	0 1 2
0	1
1	2
2	1
3	0