Simple Roll Call

Imagine you are an instructor at a university. Create an app that helps you track attendance of students for the classes you instruct. You should be able to see all of your classes as well as all of the students that are in each course.

Main View

1. Create a screen (Activity/Layout) that shows the users courses
2. The user should see a screen that shows at least 2 or more courses
3. The course widget should have:
    a. Course name (ex. Android Apps)
    b. Course extended name (CMP SCI 4222)
    c. Course Number (4222)
    d. Number of students in class
    e. Days the course is held (T/Th, M/W)
    f. The **attendance** (present) rate for the entire class as percentage or amount out of total (1/20)
    g. The **late** rate for the entire class as percentage or amount out of total (1/20)
    h. If there is an **unknown** attendance, determine how you want to reflect this in the UI
        a. Make a conscious decision to make a new data point or adjust the present/late values accordingly
4. The Widgets should be selectable
5. When selected it will start a **new** Activity
    a. The loaded content should be based on the selection (the right data for the selected course)
    b. The data should **not** be passed with a bundle
    c. The bundle/intent should only pass a small amount of identifying data as necessary
6. Data should be contained in a model class and not in the Activity class
7. Data has to be sent back from the "Details View" and stored in the model class (attendance rate for example)

Details View
1. Create a screen that lists all of the students in the course
2. The user should be able to interact with the data to set a student **present**, **absent**, **late, or unknown**
        1. The user should have a visual indication of each that is **easily** identifiable
3. The user should have the ability to **clear** or **reset** all students
4. The results of the data should reflect on the previous screen for **present** and **late** rates
5. Create at least one student that is in multiple courses
6. If the user selects values on this screen, goes back to the main, and comes back to the screen again for the same course, the previously selected values are displayed correctly
7. Course should have at least 5 students and should be (mostly) different from the other course

Grading

Grading is based on satisfying the requests listed above for the most part. There is not an exact point value assigned for each portion but some tasks do take more effort than others. I look for satisfying the criteria listed, code quality, and following MVC. Since this is the first project, it is understood that quality and MVC is not graded as harshly. This does not mean that you should not strive for code cleanliness and refactor what can be refactored. I do, however, want to avoid multiple classes in a single file still and creating large files over 500 lines (including blank lines).

The grading will look similar to the following:

[ ] - There are multiple courses listed on main screen
[ ] - Course Widgets contain the requested fields and all fields are visible
[ ] - Course Widgets show the correct calculations for attendance
[ ] - Course Widgets show the requested attendance values (present/absent, late, unknown)
[ ] - Attendance calculations are done correctly
[ ] - Selecting a course goes to the next activity
[ ] - Selected course contains the correct data
[ ] - Improper data is not passed via the bundle/intent
[ ] - Details Screen shows all students taking this course
[ ] - User can select, toggle, etc. the attendance for EACH student
[ ] - There are at least 5 students in each course
[ ] - Data changes are reflected on the Main Screen when the user goes back