CISC / CMPE 327, Fall 2024
Project Assignment #3: Prototype completion and requirement test
Due: Monday, Nov. 4th (plus 24-hour automatic extension if needed)

In this assignment, you will complete the prototype and run all the unit tests you mention in your requirements document from Assignment 1. You should proceed as follows:

1. Develop your system's backend using database platforms, such as Firebase, MongoDB, or SQLite, and create sample records for the different functionalities you have identified so far. Both Firebase and MongoDB have a free cloud quota that should be sufficient for this project, and SQLite is a local SQL-based database that you may upload to GitHub with your project.

   Note: We recommend the database choices as above so that there is no trouble running the projects on a local machine from our end throughout the grading process.

2. Complete your implementation of the prototype you developed in Assignment 2 by integrating it with the database you just created. Therefore, this will be your near-complete prototype that integrates your front-end and backend database (some modification will be allowed in the upcoming assignments).
3. Run the test cases you described in Assignment 1 (e.g. the test scripts you have written in assignment 2) against the prototype you developed.
4. While we track contributions through GitHub commits, we also require you to create a table to list the contributions of each member in task-distribution file under Assignment-3 folder in your repository

What you should hand in:

1. Complete runnable project with backend database integration.
2. A **readme markdown/pdf file** under **Assignment-3** folder in your repository explaining how to run the projects and test scripts.
3. Screenshots of all the tests that you executed in this project under **Assignment-3 folder.**
4. The task distribution

What will be checked?

- Your assignment will be evaluated based on the clarity and readability of your code. We will also assess whether all team members have contributed equally to the project.

- The project will be executed and tested by the TAs. It should run smoothly, so ensure that the instructions for running the application and test scripts are clear and easy to follow.
- Ensure that the test scripts run correctly without any issues.

Marking Criteria: Marks will be assigned between zero and the number of marks shown to a resolution of 0.5 mark.

Completeness of the project (Integration of backend and database) **4 marks**

Structure and format
- code is structured and formatted such that architecture is clearly visible in code
- naming of classes and methods clearly reflect their role in the solution

Database integration
- Clarity in database integration
- Sample data in the database

- Internal
  - clear naming of all variables and constants to reflect their role in the solution
  - comments for class/method, clearly documenting their interface and intention
  - comment at beginning of main program, documenting:
    overall program intention,
    input and output info,
    how the program is intended to be run

Test case run **3 marks**
- success cases
- some failure cases and corresponding output

Overall Presentation & Quality **1 mark**

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Total marks **8**