CSCI 578 - Software Architectures
Course Project

*Due: Tuesday, April 28, 11:59:59pm*

**Summary**

We have come to coolest part of your application’s life cycle — implementation!!! In groups of two, you are going to implement what you have planned during the previous two assignments. The result of this part will be a working version of your application and a brief summary of your opinions about your own design decisions and implementation choices. This project’s objective is to sum up a number of things that you have learned this semester.

**Pre-implementation**

Before we get to the details of the project, there are some “housekeeping” things that should be taken care of.

**Groups**

As mentioned before, you are supposed to do the project in groups of two. But since every student in the class has a specific architecture, in order to find the best teammate for you, with the most similar architecture and platform, you need to fill an [online form](#). If you have already identified a teammate, you do not need to fill out the form. Information on the form will be shared with other students so you can find someone with a similar project configuration.

DEN students are allowed to work alone if they so choose, but on-campus students must work in a team.

**Choosing an Architecture**

It is strongly recommended that you find a teammate with a very similar architecture to yours. Once you form a team, the choice of architecture you will end up implementing is up to you. Each group can continue with one of these options for its architecture:

1. Choose one of your two architectures and ignore the second one. This option is only possible if both architectures have the same style and configuration platform.
2. Integrate your two architectures. If your design decisions for this project do not match, you will have to merge the two architectures. This process will be supervised by the TA.
Implementation
Having a skeleton code and a platform on which to run it as a starting point, in this part you are going to complete your work to reach the final, complete product.

Client-Side
On the client side, you should complete the skeleton code from the previous assignment. Your solution should fully support all the functionalities mentioned in assignment. Your code will be reviewed to ensure that it matches your chosen architecture. All guidelines of architectural style that you have chosen should be reflected in your code, and no style rules should be violated. You can use the guidelines about going from the architecture to the implementation that we discussed in class and that are covered in the textbook.

Server-Side
As mentioned before, you either can implement your own server or use an API that will be given to you with documentation. Implementing your own server will take a bit of time, but it will have the benefit of supporting all the functionalities and data types of your application, which can lead to better functionality and control over the application.

Deliverables
There are three deliverables for this final phase:

1- Your complete project — all of the source code, configuration files, build scripts, and anything else you used — which needs to be fully functional. If you have any problems with submitting the whole project via email, you can use GitHub, or any other git repo system. Timestamps will be checked. The last commit time should be before the deadline. Unlike prior homework assignments, given that this is the end of the semester, no late projects will be accepted for credit.

2- Project demo, which will be scheduled within the next couple of weeks.

3- A PDF file containing any additional information you want to share about your project to help us understand its details:
   a. the final architecture on which you settled,
   b. the architectural style(s) you chose in the end,
   c. the overall structure of the code and its relationship to the architecture,
   d. any system requirements we should be aware of when trying to run the system,
   e. any implementation details you want to point out (remember to mention if you use your server program or the provided API), and
   f. anything else we should be aware of.