CMPS 278 Project Guidelines
Summer 2020-2021

The project is about the design and implementation of a learning website for elementary school students. We will restrict it to learning and testing English and math. For English, we focus on spelling and synonyms, whereas for math the emphasis is on the basic mathematical operations (addition, subtraction, multiplication, division, and modulo).
The website must obviously be interactive, and uses features that we discussed in class (the minimum set of features is listed below).

- The project is being scoped to be completed in groups of 2 students. See the list of groups, which is in a different document.

Your project should implement the following "technologies", as a minimum:
- A mix of server-side and client-side technologies.
- Ajax
- JSON
- DOM for manipulation of looks and structure
- Drag & Drop
- Multimedia – use sound or video to enhance the user experience.

Your implementation should minimize the trips to the server. That is, if it can be performed locally on the client's machine, then do it, otherwise, implement the capability on the server.

I suggested in today's lecture a possible idea of how to teach and assess a student's skills in doing some math operations. A simple example is illustrated in Lecture 12.
The following are left to you to determine:
- Exact features to integrate into the website
- How you adapt difficulty to the grade level (i.e., grade 2 versus grade 4)
- What data to store on the server or the database (if you wish to include a database). There has to be data that can only be retrieved from the server. An example would be a dictionary of English words, list of students and their grades (past performances), etc.

Project Deliverables:
- Complete code, multimedia objects, data on the server – Due July 28 through Moodle
- Demonstration to Lab Instructor: running, describing, and answering questions about the application – To be done of July 29 and/or July 30.

Project Evaluation:
- Application features (25%), Creativity (15%), Interface (15%), use of technologies (20%), practicality (15%), robustness and reliability (producing correct output) (10%).