

Problem

At the end of each semester, graduating undergraduate students partake in a project to showcase the skills and knowledge they gained throughout their academic career. During the Senior Project Showcase, they are granted the opportunity to present their work to qualifying judges so that their projects can be evaluated accordingly.

Mobile Judge is used to ensure that the setup for the showcase goes as smoothly as possible.

The features currently implemented in the system are functional, but new ways to ease the process of obtaining and storing data were considered.

Current System

- Administrators can:**
 - Start setting up the Senior Project Event by syncing data from VIP.
 - Send invitation e-mails to judges.
 - Inspect various statistics regarding judges and students.
 - Assign grades to students.
- Judges can...**
 - Register for the Showcase Event.
 - Choose the course to grade for and pick students that are of Conflict of Interest.
 - Check the event map to find out where everything is situated.
 - Grade students' performance.
- Students can...**
 - Check the event map and find out where their stations are.
 - Verify the grades that they received.

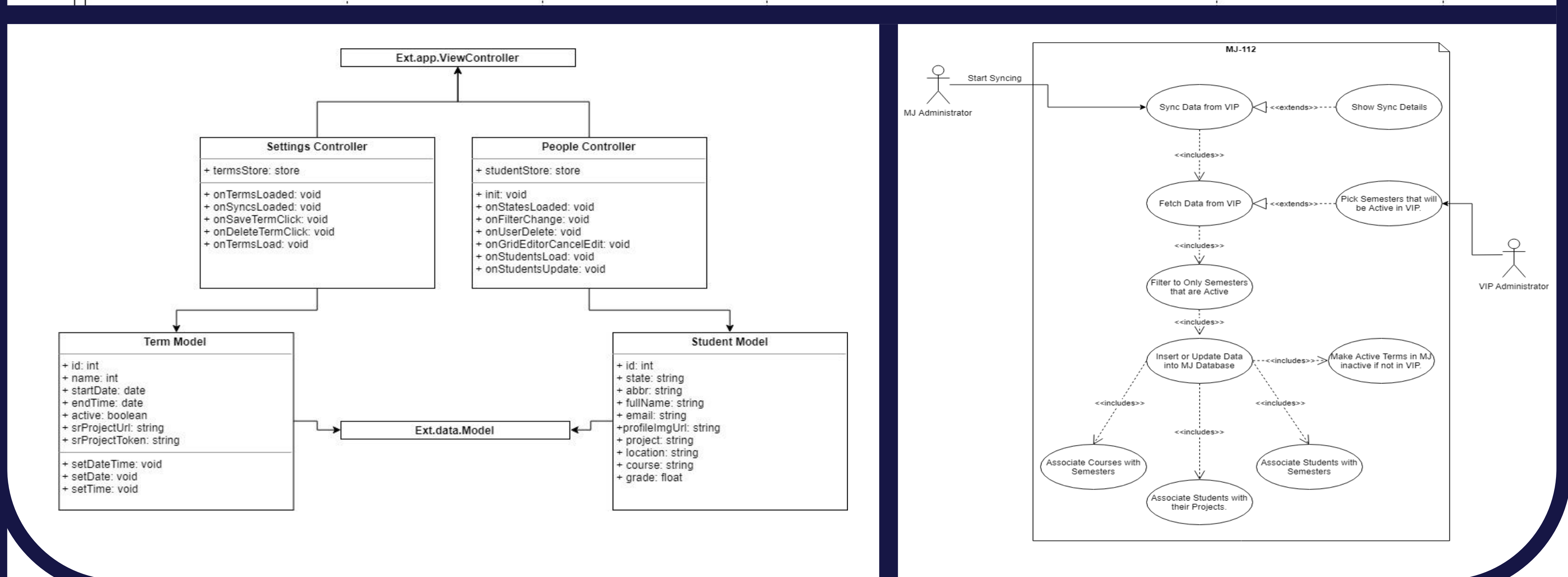
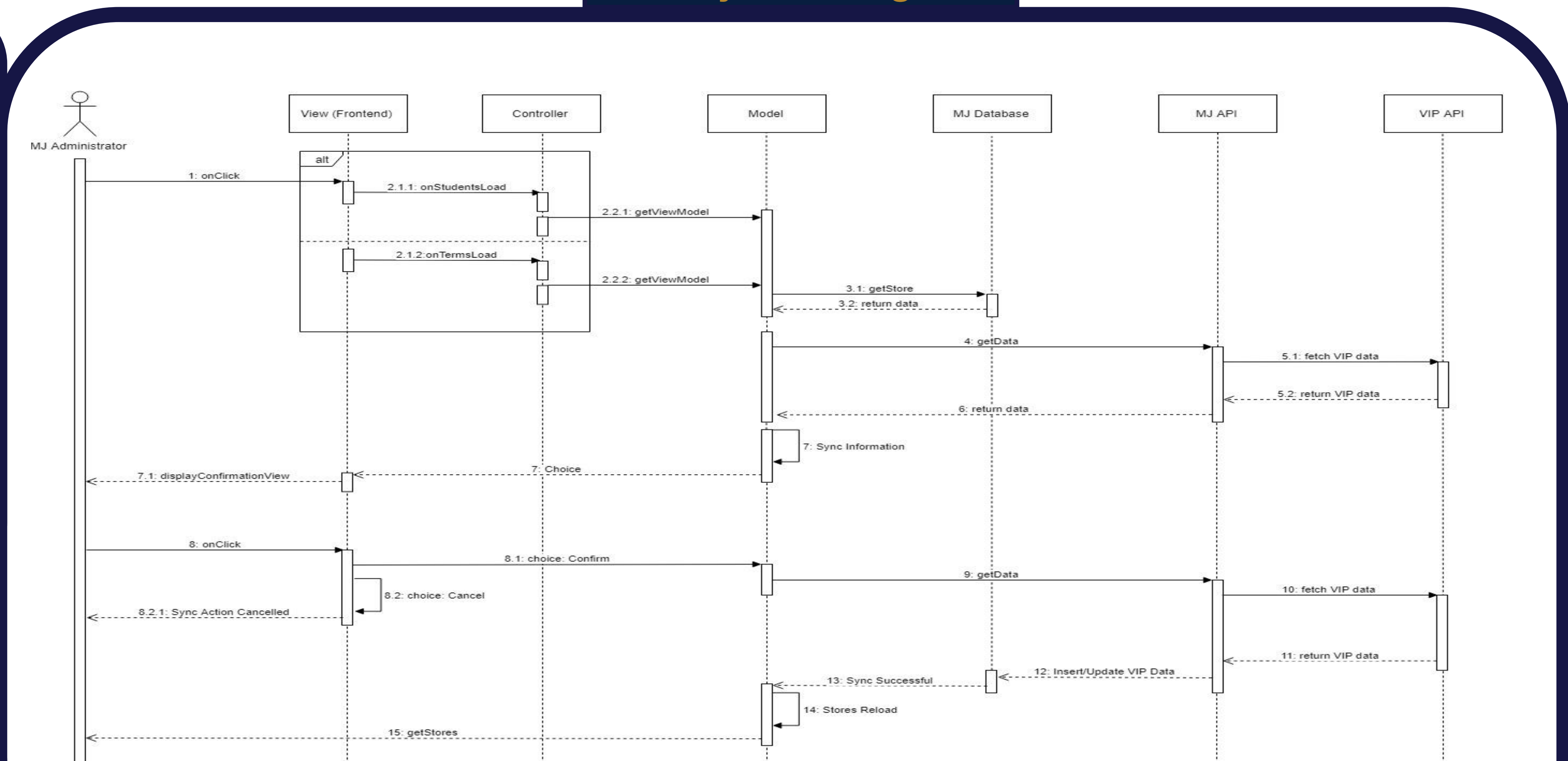
Implementation

- Sencha ExtJs:** Used for cross-browser/mobile support and view renders.
- Sencha CMD:** Used to compile and build production versions of frontend.
- NodeJS:** Used to handle routing and API requests.
- Oauth:** Used for third-party authorization.
- NGINX:** Server used for NodeJS and Oauth.
- MySQL/MariaDB/phpMyAdmin:** Database used for data manipulation.
- NPM:** Used to manage the required node modules.
- Vagrant/Ubuntu:** Development environment.
- Notepad++:** Text Editor used.
- POSTMAN:** Used to test API connections.

Requirements

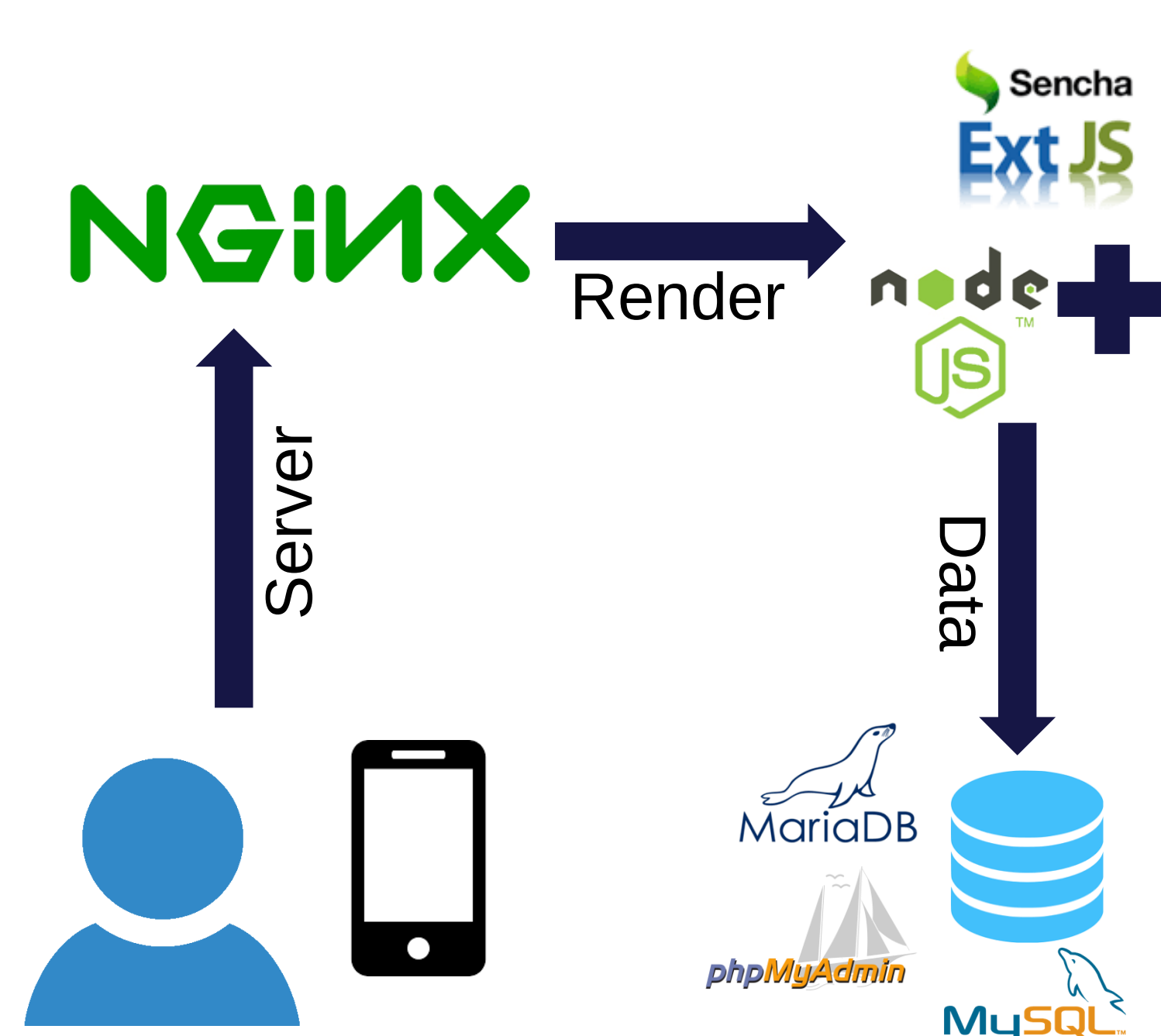
- Work with VIP developers to get active term data.
- Display important sync data upon clicking on Sync button in either the People > Students View or the Settings > Terms View.
- Change Setting View by separating data fields in the Terms Tab into their own views.
- Allow for multiple active semesters.

Object Design

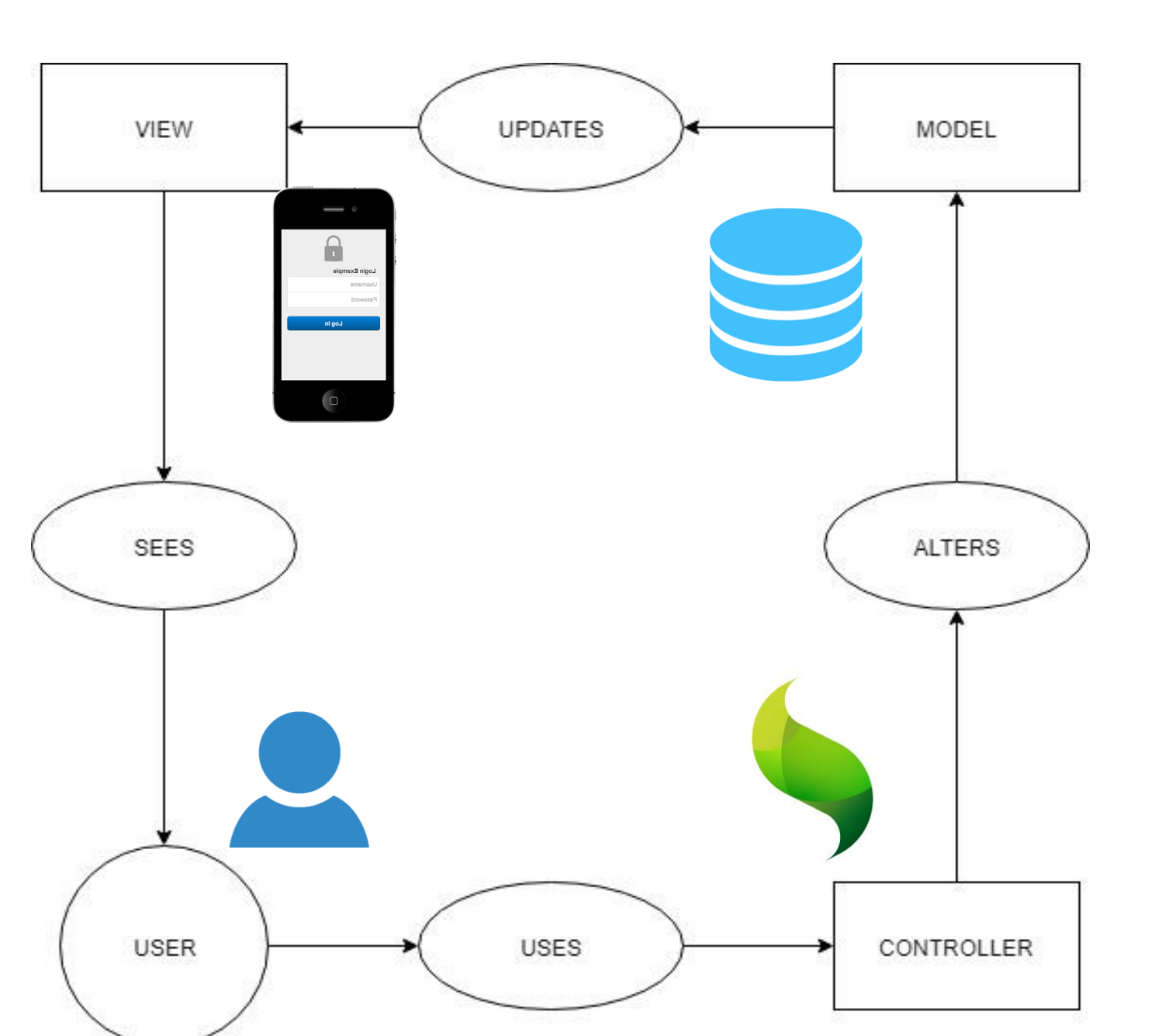


System Design

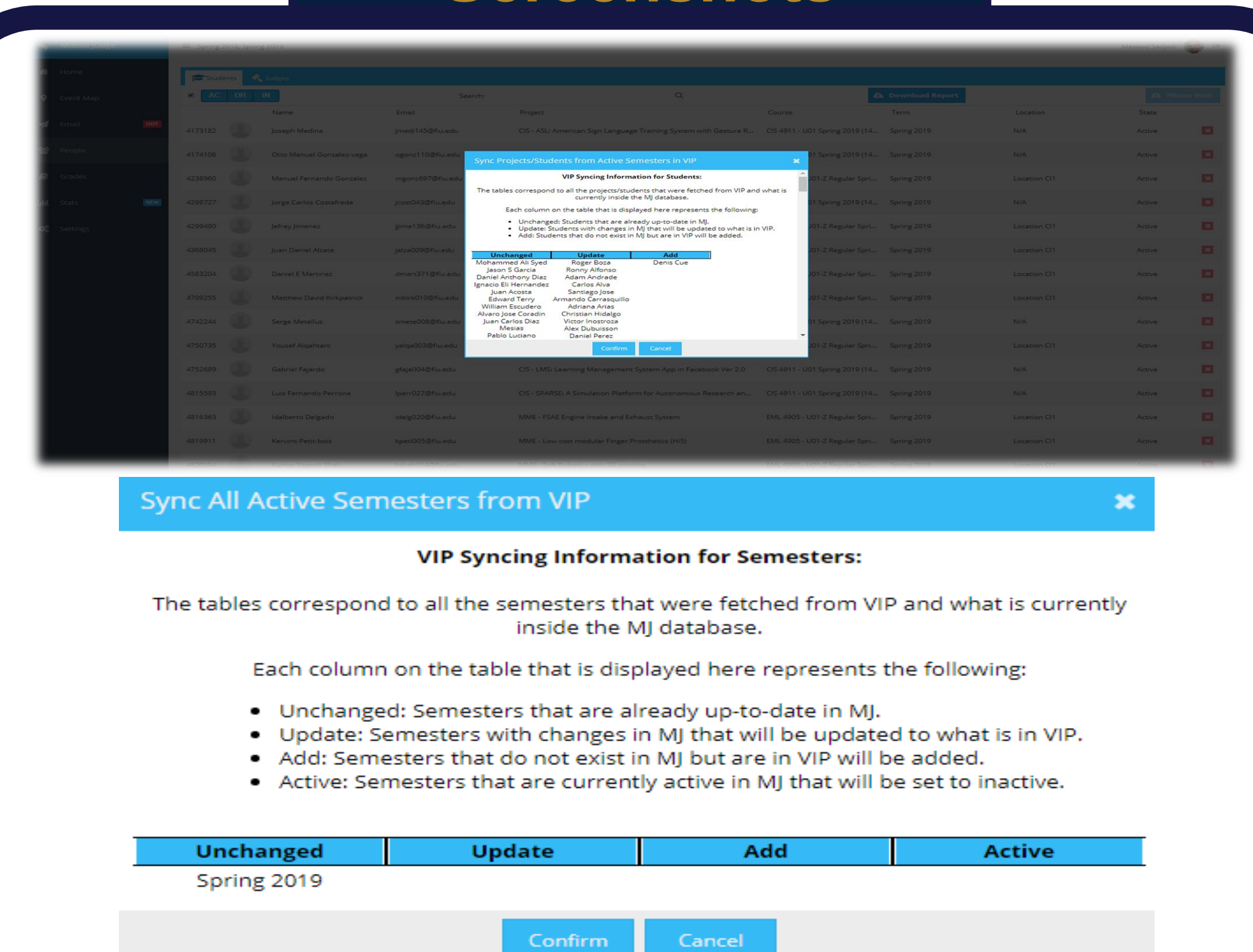
Client Server Model



Model – View - Controller



Screenshots



Summary

Mobile Judge Ver. 12.0 brought upon many new features that ultimately improve the process of organizing the showcase event. such as syncing data from Vertically Integrated Projects to Mobile Judge.

The development of these new features proved to be quite the challenge, but nonetheless it served as a means of exposing oneself to how the development process is practiced in the industry while also getting involved and learning new technologies.

Acknowledgement

The material presented in this poster is based upon the work supported by Dr. Masoud Sadjadi. I thank Jorge Velez, Ronny Pacheco, and Jesus Barrios for assistance, cooperation and mentorship that I/we received throughout this process