Product Design

**Team DASS43**

**Naren Akash R J** **P Meena Raja Sree**
**Mayank Goyal** **Jalees Jahanzaib**

### Design Overview

# Architectural design

The DASS project is intended to migrate from the existing external dependencies of the code of 'Circular Dichroism Spectroscopy' virtual lab to JavaScript. The existing architecture is expected to be continued. The virtual lab has 10 experiment modules and we intend to rewrite the codes of the simulation of these 10 experiments only.

# System interfaces

## User Interface

The project aims at porting the existing experiments written in Flash, PHP and other external dependencies to JavaScript. The user interface of the virtual lab has already been developed by the client. The user may not find any difference in the view-experience as most of the work is aimed at the back-end.

## APIs

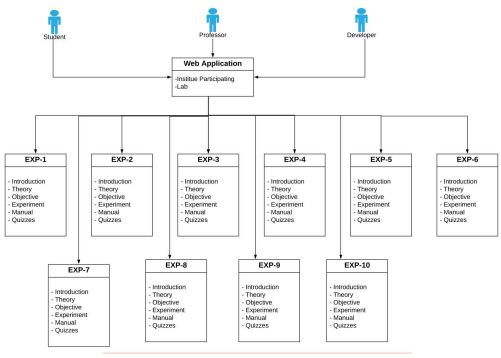
We do not use any APIs in our project.

# Model

| | |
|---|---|
| Experiment Simulation | The experiment simulation is expected to be able to run with no-external dependencies using JavaScript |

.

### Sequence Diagram(s)



## Design Rationale

*Note: This following is a running list of issues that arise as your design process proceeds.*

1. Choosing the right JavaScript library for molecular visualization.

- Our first choice was to go with 3Dmol.js as it is a light-weight as well as widely used module across the world.

- As the previously used Java applet module Jmol, we intend to use Jsmol, the HTML5 modality of Jmol. The functionalities of Jsmol being similar to Jmol is an added advantage.