

# Vision and Scope for Interactive Simulation Virtual Classroom

---

By: Katrina Connors, Steven  
Aldridge, Tavon Pourboghrat

# Background

---

- This project was created with two goals in mind
    1. Providing a simple online resource that will allow teachers to easily access online simulations
    2. To give those teachers a way to easily distribute these simulations among their students.
-

# Business Requirements

---

- ❑ Increase the ability of teachers to use online resources in their lessons
  - ❑ Provide students with more opportunities to use these resources for hands-on learning.
-

# Stakeholders and Users- Educators

---

- Benefit for a few reasons
    - Will easily be able to send simulations to students in their class
    - Easily run simulations with limited computer experience
    - Give students an online progress report
    - Easily search simulations with our search function
-

# Stakeholders and Users- Students

---

- Benefit for a few reasons
    - Look up assignments online, even if absent from class
    - Check their grade progress
    - Easily use simulations with limited computer experience
    - Can easily check homework for all classes on one webpage
-

# Risks

---

- ❑ Short development time
  - ❑ Lack of knowledge of needed resources
  - ❑ Difficulty in meeting with the stakeholders
-

# Assumptions/Dependencies

---

- ❑ Major users will be middle school and high school teachers
  - ❑ Some of our users will not have a lot of experience with computers
  - ❑ The open-source sites we get our simulations from will not drastically change
  - ❑ The open-source sites will always be available
  - ❑ One person will administer teacher accounts
-

# Vision of the Solution

---

- Must be able to run all simulations in a web browser
  - Ease of use
  - Simplified process for the teachers to run and share simulations
-



# Vision Statement

---

- Enable teachers to create “classes”
  - Search and choose simulations for their class
  - Edit the simulations from the web browser
  - Students should be able to join their classes
  - Restrict access to those students and teachers in the school
-

# Major Features

---

- Login
  - Create Account
  - Simulation Search Bar
  - Add Student Button with Input
  - Add Class Button with Input
  - Link Simulation Button with Input
-

# Major Features cont.

---

- Add Homework/Quiz Button
  - Homework/Quiz Customization Tool
  - Simulation Customization Tool
  - Error Handlers
  - Sessions
-

# Scope of Release

---

- ❑ Centralized database of open-source simulations
  - ❑ Ability for simulations to be run in a web browser
  - ❑ Student and teacher profiles
  - ❑ Possible gradebook and quiz functions
  - ❑ Security of the login process
-

# Operating Environment

---

- ❑ Will run in any web browser
  - ❑ Will mostly be accessed during school hours, but expect 24 hour access
  - ❑ Server will be run on Google Apps Engine
  - ❑ Coding will mostly be done in Java
  - ❑ MySQL will be needed for the database of simulations
  - ❑ AJAX needed for some browser functions
  - ❑ HTML needed for user interface
-

# Functional Requirements

---

- Separate user name and password
    - Will allow each user to have unique view when logged in
  - Separate teacher and student accounts
    - Each account requires different features
    - Teachers require functions for adding students and searching simulations
    - Students require functions that allow them to view simulations and answer questions about them.
-

# Functional Requirements Cont.

---

- ❑ Should only work with a valid login.
  - ❑ Search through the database function
    - Project should be able to handle search cases with multiple or no results.
  - ❑ Homework and quiz customization
  - ❑ Homework and quiz submissions
  - ❑ Simulation customization (if time permits)
-