Requirements elicitation:

Requirements:

1. Both user roles must be able to create an account, and login to an existing account with the correct username and password.

   1.1. For sign up, users must be able to enter an email,password, and confirmation of password .User should also be able to indicate their role at sign up. If the email is already in use, password and confirmation do not match, or password is invalid, the user should receive an error message informing them when attempting to submit the form, and sign up should not go through .

   1.2. For login, if the email exists and the entered password matches the password in the database, the user should be logged in. If one of the previously listed conditions is not met, the user should receive an error message when attempting to login and login should not go through.

2. Registrant must be able to:

   2.1. Select their desired degree and see the required classes for said degree.

      2.1.1. When degree is selected the registrant should be able to see the names and course numbers of that degrees required classes, as well as the amount of electives both open and restricted (ie: non-computer science science elective) and classes that must fit a specific requirement (ie:math or stat above 200 level, 400 level computer science)

   2.2. Create, save, rename, and delete Semesters

      2.2.1. When a new semester is created it should appear next to the previous created semester

      2.2.2. When a semester is renamed the new name should appear instead of the old for the remainder of the session.

2.2.3. When a semester is saved, if the user logs out and logs back in it should have the same title and courses as it did when it was saved

2.2.4. If the semester is not saved after changes have been made, and the user logs out and back in, it should appear the same as it did when it was last saved.

2.2.5. If a semester is deleted it should vanish.

2.3. Drag and drop classes from the requirements for their degree into the semesters they wish to take said classes in.

2.3.1. The user should see a list of classes that are required for their selected degree.

2.3.2. Once a class has been placed into a semester it should appear in that semester unless moved or removed.

2.4. Save schedule and view it again on subsequent logins.

2.4.1. The user should be able to save a schedule in its current state and logout, then on subsequent logins the user should see the previously saved schedule.

2.5. Verify degree plan

2.5.1. When the user hits the "check degree for validity" button, they should either receive a message indicating their plan is valid and complete, or receive an error message indicating the issue

3. Registrar should be able to:

3.1. View scheduling data:

3.1.1. Registrants should be able to see the total number of registrants who have chosen to take a given degree in a given semester. Registrants who

have a co-op term in said semester will be counted, but registrants who have a gap semester should not.

    3.1.2. Registrants should be able to see the total number of registrants who have chosen to take a given class in a given semester.

    3.1.3. Registrants should be able to see the top ten classes chosen for a given semester order by number of registrants descending.

Software Qualities:

Correctness:

Registrant:

- When a class block is dragged into a semester and dropped there, it should be displayed there and no longer appear in the to be scheduled list.

- When a registrant enters the correct username and password, they should be logged in and their previously saved schedule should be displayed, or if they have not previously saved a schedule a blank four year schedule should be displayed.

Registrar:

- When a registrar enters the correct username and password, they should be logged in and the registrar home page..

- When a registrar selects a degree and the information to be displayed, they should see the chosen information for the chosen degree.

Robustness:

Registrant:

- When a registrant places a class that has a prerequisite and the prerequisite has not been placed before it, when they verify their degree they should receive an error message indicating the issue.
- If a registrant attempts to place a class anywhere except within a valid semester, the class should return to the to be scheduled list

Registrar:

- Any user attempting to reach the registrar homepage without being logged in as a registrar should be redirected to the login/signup page.
- If a registrar attempts to sign in with an incorrect password, or an email for which there is no account, they should receive an error message indicating the issue and not be logged in.

Time efficiency:

Registrant:

- When a course is dragged from the to-be- scheduled list to a semester, it should disappear from the to-be-scheduled list and appear in the semester within ten seconds.
- When a registrant verifies their degree, they should receive feedback within ten seconds

Registrar:

- When a registrar logs in they should see the registrar homepage within five seconds..
- When a registrar selects a degree and the information to be displayed, they should see information within ten seconds.