Findr

Requirements Specifications

TeamBATS

Aiden Dickson, Ben Kaufmann, Daniel Semenko, and Taylor West

Course: CptS 322 - Software Engineering Principles I

Instructor: Sakire Arslan Ay

Table of Contents

Document Revision History
Rev 1 2021-10-13 Initial Version

I. Introduction

This document is a Software Requirement Specification (SRS) which contains plans for the Findr application. This will go into detail who will be involved with this project, the use-cases, requirements for the application, and show mock-up designs to demonstrate how the final product will look and function.

I.1. Document Purpose

This Software Requirement Specification is written to lay out functional and non-functional requirements for Findr. This will also serve as a basis for the agreement between TeamBATS and Sakire Arslan Ay, who has commissioned the project for potential use by faculty and students.

I.2. Product Scope

The application requirements in this document are for the application called Findr. Findr is an app for both students and faculty, where students can find and apply for undergraduate research opportunities posted by faculty. Then, faculty can select the candidates they want to move forward with. This will be beneficial to both students and faculty as it will make finding connections between faculty and students easier since some faculty don't teach lower-level courses. The goal of Findr is to create a platform that allows this functionality to allow for these connections to be made as easily as possible by December 6th, 2021.

I.3. Document Overview

The rest of this document contains details about the uses of Findr, the exact functional/non-functional requirements, and mock-ups for the interface.

II. Requirements Specification

This section specifies the software product's requirements. Specify all the software requirements to a level of detail sufficient to enable designers to design a software system to satisfy those requirements, and to enable testers to test that the software system satisfies those requirements.

II.1. Customer, Users, and Stakeholders

A brief description of the customer, stakeholders, and users of your software.

In project management, the customers are the ones who define the requirements of the project and set the parameters such as budget and deadlines. Therefore, for Findr, the customers are the faculty members who are instating the use of this project. They need this online platform to connect their faculty with qualified students. These faculty members are the ones setting the requirements and specifications that the program must follow. They would also oversee our budget, if we had one, and the deadline for completion.

The users, on the other hand, would be anyone who actively uses the application. In the case of this project, the potential users could be students or faculty. Students can use the application to find research positions that match with their interests and allow them to apply to those research positions. The faculty, on the other hand, are the ones publishing different research opportunities for the students to find. Faculty can get an overview of the students who apply to their research posts and approve or deny their applications.

Finally, the stakeholders are anyone who is affected by the implementation of the project. The point of this project from the beginning is to connect faculty and students. Therefore, the potential stakeholders would include the faculty, who are able to advertise their research opportunities to students and select the candidates they want to interview. Students are also stakeholders, as they are given the opportunity to put themselves out there to staff in great research opportunities. In addition, there could be professors or researchers who aren't connected to students, but through the implementation of the program, are connected by the students accepted through the application.

II.2. Use Cases

Use case # 1

Name	Student Sign Up
Users	Students
Rationale	We need to know enough about a student to know what research opportunities they're available for and how to contact them if a faculty member accepts their application.
Triggers	The student clicks the "Register" button.
Preconditions	Student is on the "student" page.
Actions	1. The user fills out informational fields containing their contact information and relevant qualifications. 2. The user's information is stored for later retrieval. 3. The user is redirected to the login page with a visible message indicating that they registered successfully.
Alternative paths	If the user's registration information already exists, then don't add the user to the database and display an appropriate error message on redirect.
Postconditions	The user exists in the database.
Acceptance Tests	User is found in user listings and can apply to position postings.
Iteration	#1

Use case # 2

Name	Faculty Sign Up
Users	Faculty
Rationale	We need to know enough about each faculty member to contact them when a student applies to one of their positions.
Triggers	Faculty member clicks the “Register” button.
Preconditions	Faculty is on the “faculty” page.
Actions	1. The user fills out fields with their contact information. 2. The faculty information is stored for later retrieval. 3. The user is redirected to the login page with a visible message indicating that they registered successfully.
Alternative paths	If the user’s registration information already exists, then don’t add the user to the database and display an appropriate error message on redirect.
Postconditions	The faculty exists in the database.
Acceptance Tests	The faculty is found in faculty listings and can post research positions.
Iteration	#1

Use case # 3

Name	Student login
Users	Students
Rationale	Students need exclusive access to a portal from which they can update their information and apply to research positions.
Triggers	Student clicks the “Login” button.
Preconditions	User isn’t logged in.
Actions	1. User enters their username and password and presses the “Log in” button. 2. User is redirected to the homepage.
Alternative paths	User may press the “Register” button to be taken to the register page.
Postconditions	The student is now logged in and their username is displayed in the navigation bar.
Acceptance Tests	Registering and logging a student in results in their username being displayed in the navigation bar.
Iteration	#1

Use case # 4

Name	Faculty login
Users	Faculty
Rationale	Faculty need exclusive access to a portal from which they can update their information and post research positions.
Triggers	Faculty clicks the “Login” button.
Preconditions	Faculty isn’t logged in.
Actions	1. User enters their username and password and presses the “Log in” button. 2. User is redirected to the homepage with a visible message indicating that they logged in successfully.
Alternative paths	User may press the “Register” button to be taken to the register page. If the faculty member has no account than an error message should be displayed on redirect.
Postconditions	The faculty member is now logged in and their username is displayed in the navigation bar.
Acceptance Tests	Registering and logging a faculty in results in their username being displayed in the navigation bar.
Iteration	#1

Use case # 5

Name	View open research positions
Users	Students
Rationale	Students will want to log in and be able to view all the research positions that they can apply to. They'll also want to be able to filter the positions by their research interests.
Triggers	Opening the app or navigating to the home page manually. There should be a button that shows the user only "recommended" positions.
Preconditions	The student must be logged in.
Actions	All open research positions should be listed.
Alternative paths	Pressing the "Recommended" button should replace the currently displayed research positions with "recommended" research positions which are tagged with research topics the user has listed as interests.
Postconditions	None.
Acceptance Tests	Submitting a research position as a logged in faculty member and looking at open research positions as a logged in student should show the research position.
Iteration	#2

Use case # 6

Name	Create undergraduate research positions
Users	Faculty
Rationale	It's more useful to faculty if students can apply to positions they want rather than faculty reaching out to students to see if they're interested.
Triggers	Faculty presses the "New listing" button
Preconditions	Faculty is logged in as a faculty user
Actions	1. Faculty member enters research project title, a brief description of goals and objectives, start and end date, required time commitment, research fields, brief description of required qualifications. 2. User presses the "submit" button. 3. User is redirected to the homepage with a visible message indicating that they posted the listing successfully.
Alternative paths	
Postconditions	A listing for the position should be stored in the database and visible to students looking at their homepage.
Acceptance Tests	Posting a listing should result in a logged in student being able to view it on their homepage.

Iteration	#2

Use case # 7

Name	View an individual position listing
Users	Students
Rationale	A list of open positions won't have enough visual space to display all the relevant information that a student needs to decide whether they want to apply. They need to be able to view all available information about a listing.
Triggers	User clicks on a posting.
Preconditions	User is logged in and looking at the list of positions on their homepage.
Actions	User is directed to a page which displays information for a specific listing
Alternative paths	
Postconditions	User's browser is navigated to a page that displays the information for a specific listing they requested.
Acceptance Tests	Going to the page for a specific listing should display all relevant information.
Iteration	#2

Use case # 8

Name	Apply to research position
Users	Students
Rationale	A list of available positions and contact information would be sufficient to connect students with faculty, but it would be better if faculty could see all of their applicants at once and get a bird's eye view of applications and easily reject or accept them, which would take more effort and be less organized if done over phone or email.
Triggers	User clicks the "Apply" button on a position
Preconditions	User is logged in and navigated to the page for a specific position that they're interested in applying to.
Actions	1. User presses the apply button 2. User's application is stored in the database 3. User is redirected to the same page with a message indicating that they applied to the position
Alternative paths	If the user has already applied to a position or been rejected then it should not add another application and it should display an error message on the redirect.
Postconditions	User's application is stored for retrieval when a faculty member looks at applications to their listing.
Acceptance Tests	
Iteration	#2

Use case # 9

Name	View submitted applications and check status
Users	Students
Rationale	Users should be able to easily see the different applications they have submitted on a single page instead of inconveniently viewing individual applications one-at-a-time.
Triggers	User clicks the “My Applications” button in navigation bar.
Preconditions	User is logged in.
Actions	**1.** Submitted applications are retrieved from the database **2.** The User’s submitted applications are displayed along with their statuses (Pending, Approved for Interview, Hired, or Not hired).
Alternative paths	None.
Postconditions	None.
Acceptance Tests	Submitting multiple applications as a logged in user, then traversing to this page should display each of the submitted applications and their statuses.
Iteration	#2

Use case # 10

Name	Withdraw pending applications
Users	Students
Rationale	A User should be able to withdraw a pending application because mistakes can be easily made during the sign-up process.
Triggers	User clicks the “Withdraw application” button on the Research Position Info Page.
Preconditions	For the “Withdraw Application” button to appear on the Research Position Info Page, the user must have the pending status on an application and the user must be signed in.
Actions	**1.)** User clicks the “Withdraw Application” button **2.)** User is prompted with a verification page to make sure they want to go through with the withdraw. **3.)** Application is deleted from the database if the user approves of the withdraw. **4.)** User is redirected to the previous page with a message flashing if the withdraw was successful or not.
Alternative paths	If the user decides to cancel the withdraw process (Action Step 2.), they will be redirected to the previous page with a message displaying “The withdraw process has been cancelled”.
Postconditions	User’s application is removed from the database.
Acceptance Tests	Applying as a logged in user, being put on “pending” status, then traversing to the Research Position Info Page should display the “Withdraw Application” button. Clicking this button should remove the application from the database.
Iteration	#3

Use case # 11

Name	See applications submitted to their positions
Users	Faculty
Rationale	A Faculty User should be able to easily see the different applications for each listing.
Triggers	Faculty User clicks the “View Student Applications” on the View Research Posting page.
Preconditions	Faculty User is logged in. Listing is found in database.
Actions	**1.)** Faculty User clicks the “View Student Applications” button. **2.)** Faculty User is presented with list of applications each with “Individual View” buttons.
Alternative paths	None.
Postconditions	None.
Acceptance Tests	Submitting applications to the same listing from multiple users should all appear on this page.
Iteration	#3

Use case # 12

Name	View qualifications of students who applied i.e. see student profiles
Users	Faculty
Rationale	A Faculty User should be able to view the profile along with the individual application information of the students who applied to a listing.
Triggers	A Faculty User clicks on the “View Application” button from the View Student Applications page.
Preconditions	Faculty User is logged in. Desired Student User exists.
Actions	**1.)** Faculty User clicks “View Application” button **2.)** Faculty User is redirected to desired student profile page
Alternative paths	Faculty User is redirected back to previous page and flashed an error message if student profile cannot be found.
Postconditions	None.
Acceptance Tests	Logging in as a Faculty User, viewing a listing with multiple student applications and clicking “View Application” should bring up the desired student profile.
Iteration	#3

Use case # 13

Name	Approve application for interview
Users	Faculty
Rationale	A Faculty User should be able to approve an application for interview.
Triggers	A Faculty User chooses the “Approve application for Interview” from select field on the View Single Application page.
Preconditions	Faculty User is logged in. Student is applied for listing.
Actions	**1.)** Faculty User selects “Approve Application for interview” option from select field. **2.)** Faculty User clicks “Update” button. **3.)** Application status is updated and committed to database.
Alternative paths	None.
Postconditions	User’s application is updated with new information and stored in database.
Acceptance Tests	Logging in as a Faculty User, selecting an application with “pending” status, and selecting “Approve application for interview” should update the status of the application in the database.
Iteration	#3

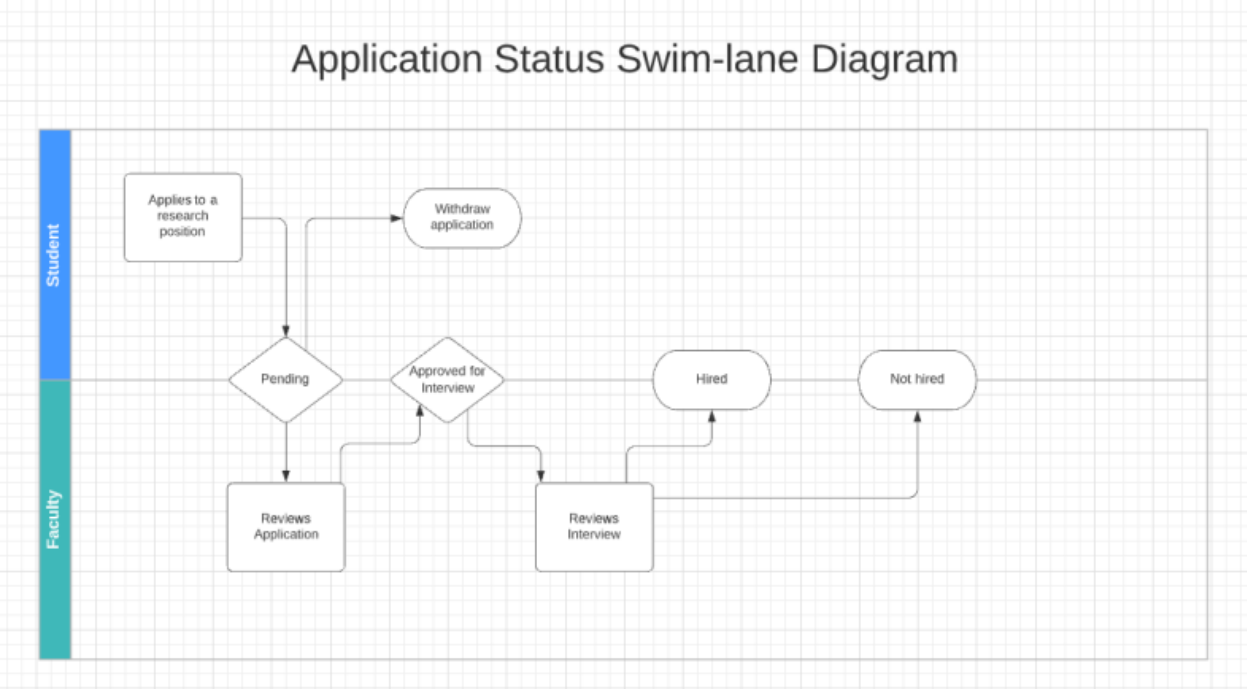
Use case # 14

Name	Update application with “Hired” or “Not hired”
Users	Faculty
Rationale	A Faculty User should be able to update application with “Hired” or “Not hired”.
Triggers	A Faculty User chooses the desired option from select field on the View Single Application page.
Preconditions	Faculty User is logged in. Student is applied for listing.
Actions	1.) Faculty User selects the desired option from select field. **2.)** Faculty User clicks “Update” button. **3.)** Application status is updated and committed to database.
Alternative paths	None.
Postconditions	User’s application is updated with new information and stored in database.
Acceptance Tests	Logging in as a Faculty User, selecting an application with “pending” status, and selecting the desired option should update the status of the application in the database.
Iteration	#3

Use case # 15

Name	Delete research position
Users	Faculty
Rationale	A position listing is no longer required and will attract unwanted applications once it has been filled.
Triggers	User presses the “Delete” button on a listing.
Preconditions	User is logged in as a faculty member who owns the listing.
Actions	1. Position is marked as closed in the database. 2. All applications to it now display “Position is not available” 3. User is redirected to their homepage with a message indicating that the listing has been deleted.
Alternative paths	
Postconditions	Listing is no longer visible to students.
Acceptance Tests	Logging in as a faculty member, posting a listing, then deleting the listing should result in the listing being invisible to students.
Iteration	#3

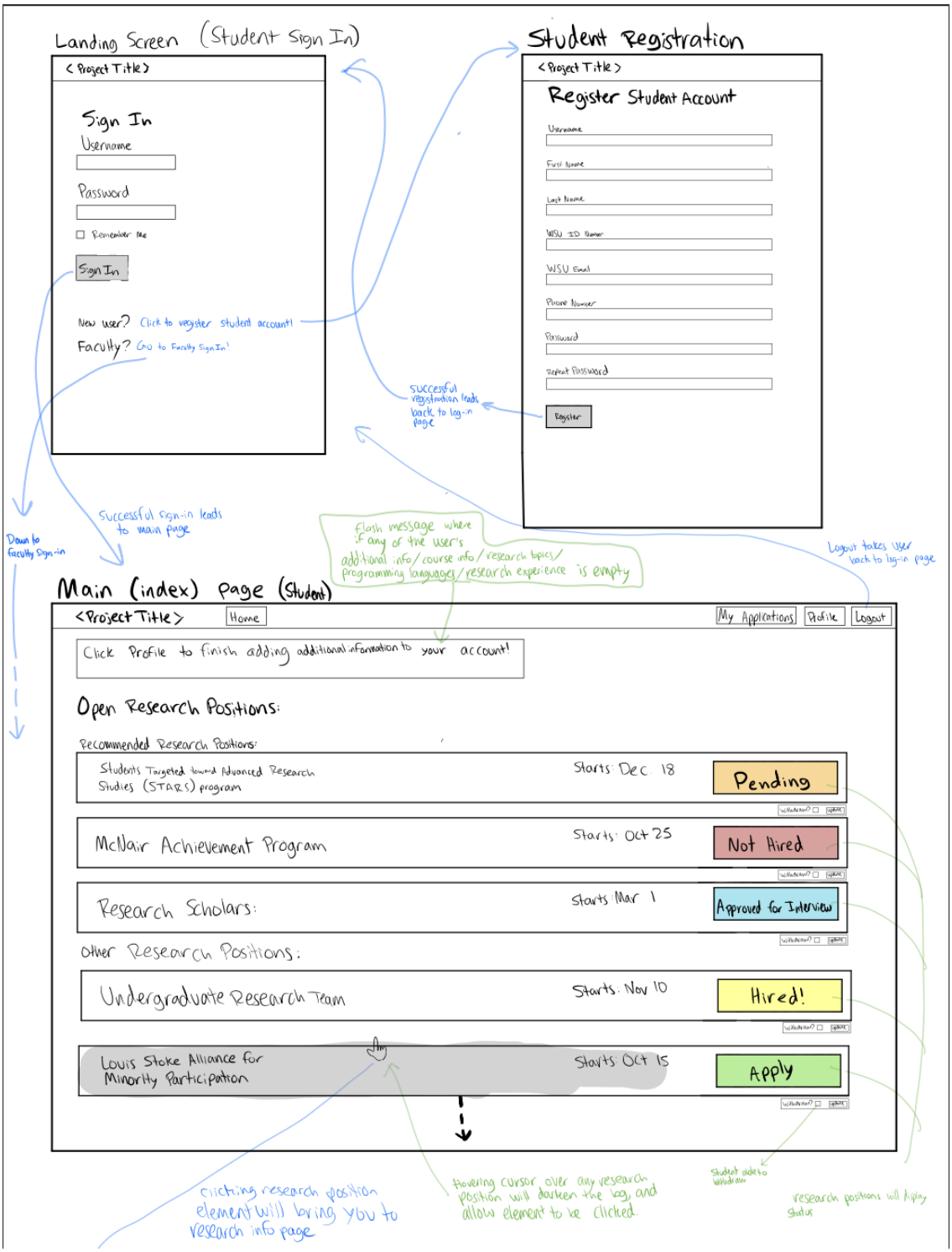
"A student applies to a research position; initially its status will appear as "Pending". The faculty who created that position reviews the application and updates the application status to either "Approved for Interview", or "Hired", or "Not hired". The updated status of the application is displayed on the student view. The student may delete the pending applications (i.e., whose status is still "Pending".)"

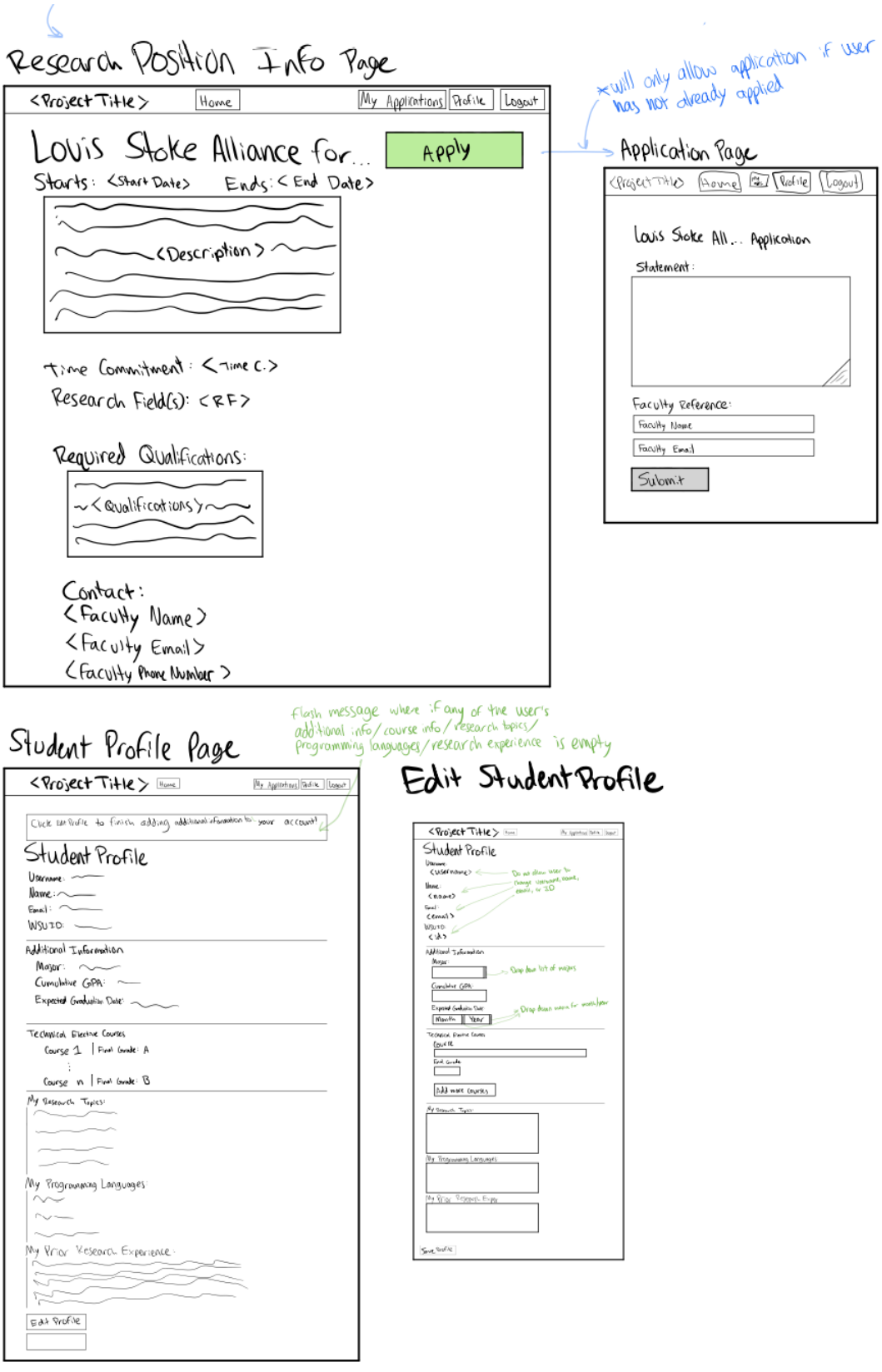


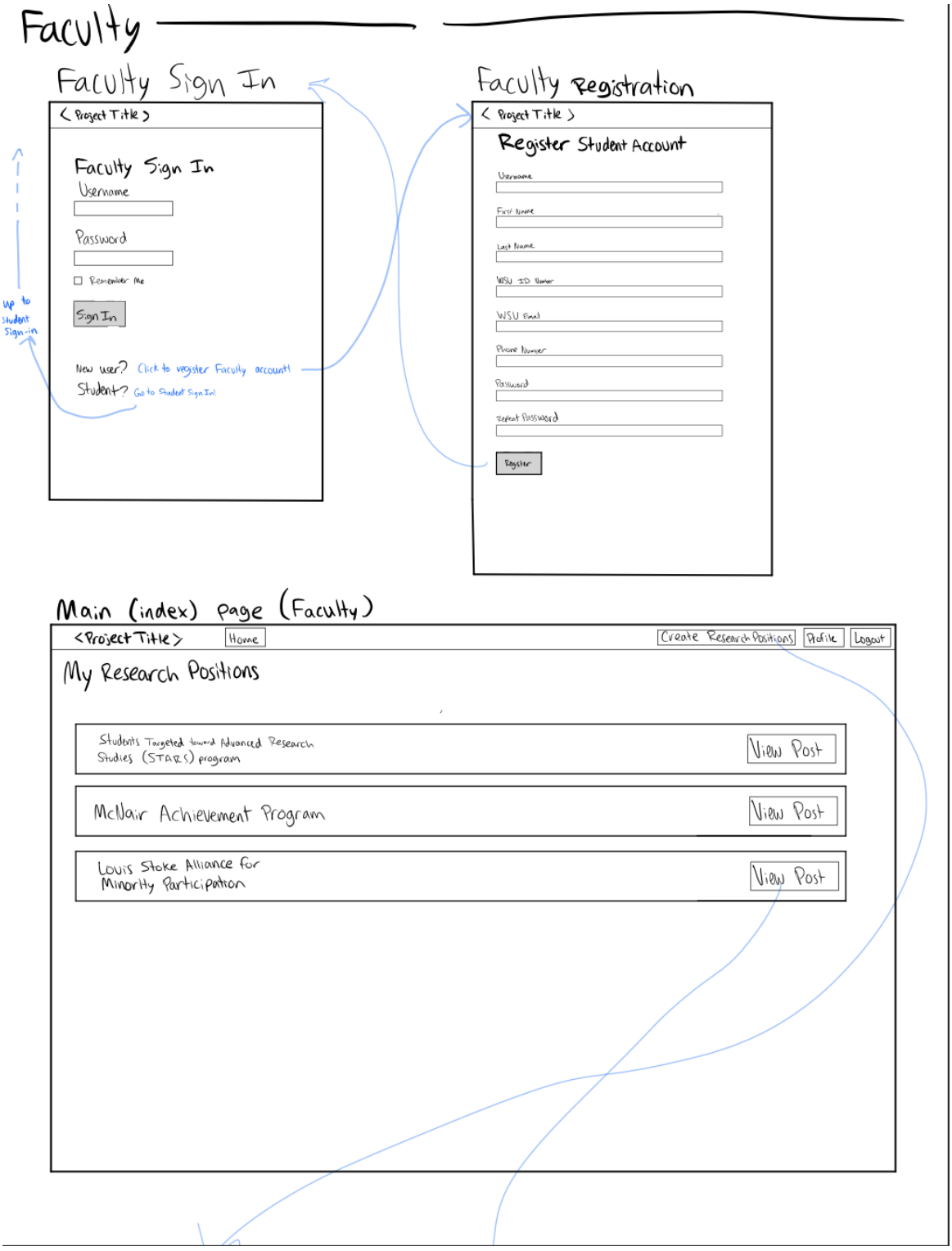
II.3. Non-Functional Requirements

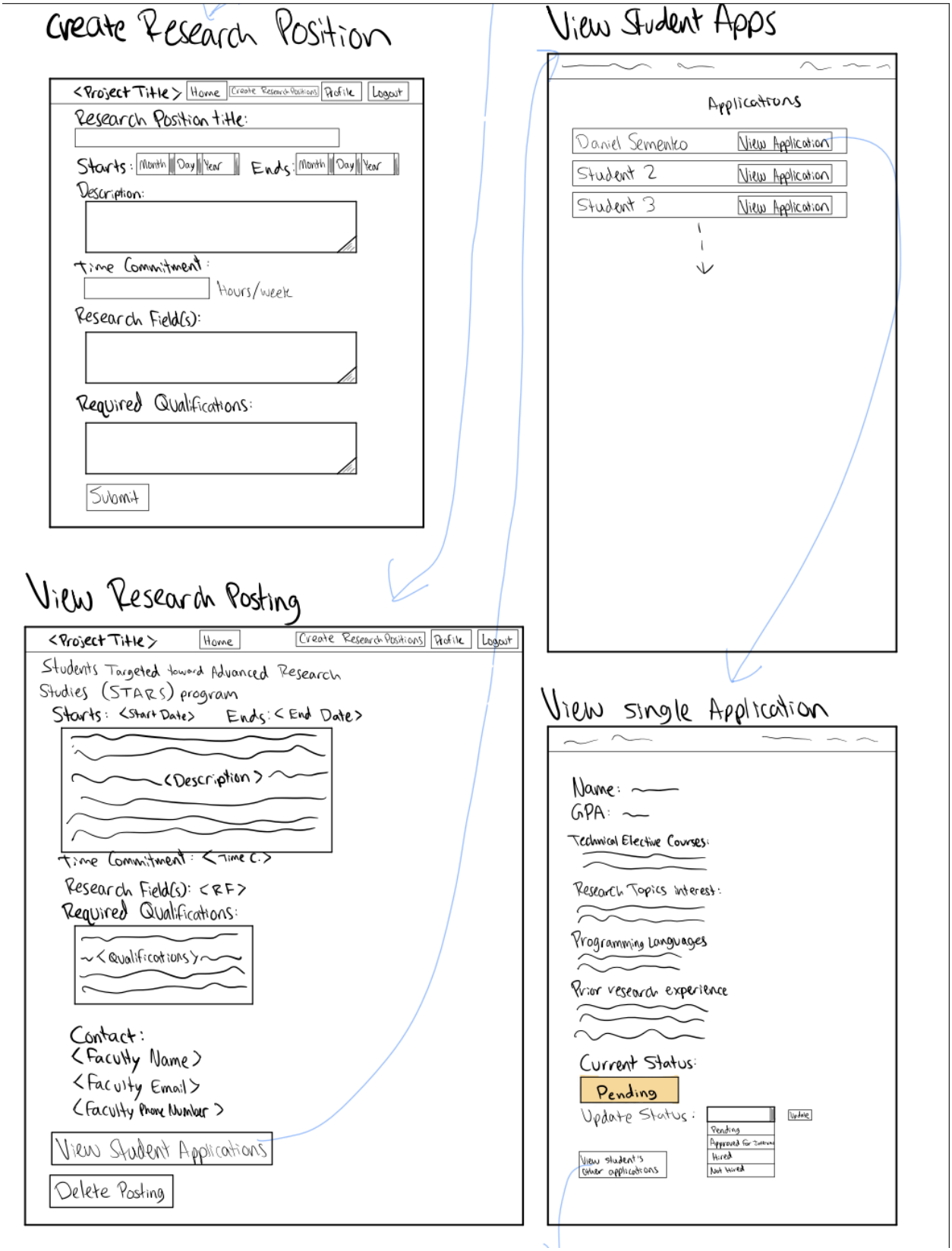
1. Response time: Server should respond to page accesses within 2 seconds.
2. Availability: Support Chrome, Edge, Firefox, Opera on desktop and mobile
3. Security: Require a password change every 90 days

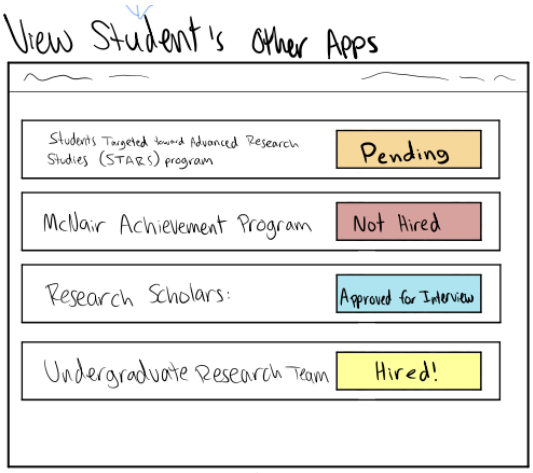
III. User Interface




Research Position Info Page
<Project Title>
Home
My Applications
Profile
Logout
Louis Stoke Alliance for...
Apply
Starts: <Start Date>
Ends: <End Date>
<Description>
Time Commitment: <Time C.>
Research Field(s): <RF>
Required Qualifications:
<Qualifications>
Contact:
<Faculty Name>
<Faculty Email>
<Faculty Phone Number>
*will only allow application if user has not already applied
Application Page
<Project Title>
Home
Profile
Logout
Louis Stoke All... Application
Statement:
Faculty Reference:
Faculty Name
Faculty Email
Submit
Student Profile Page
<Project Title>
Home
My Applications
Profile
Logout
Click Edit Profile to finish adding additional information to your account
Student Profile
Username:
Name:
Email:
WSU ID:
Additional Information
Major:
Cumulative GPA:
Expected Graduation Date:
Technical Elective Courses
Course 1 | Final Grade: A
Course n | Final Grade: B
My Research Topics:
My Programming Languages:
My Prior Research Experience:
Edit Profile
Flash message where if any of the user's additional info/course info/research topics/programming languages/research experience is empty
Edit Student Profile
<Project Title>
Student Profile
Drop down list of majors
Drop down years for graduation
Add more courses
Save Profile


Faculty
Faculty Sign In
< Project Title >
Faculty Sign In
Username
Password
Remember Me
Sign In
New user? Click to register Faculty account!
Student? Go to Student Sign In!
up to student sign-in
Faculty Registration
< Project Title >
Register Student Account
Username
First Name
Last Name
WSU ID Number
WSU Email
Phone Number
Password
Repeat Password
Register
Main (index) page (Faculty)
<Project Title>
Home
Create Research Positions
Profile
Logout
My Research Positions
Students Targeted toward Advanced Research Studies (STARS) program
View Post
McNair Achievement Program
View Post
Louis Stoke Alliance for Minority Participation
View Post


Create Research Position
<Project Title>
Home
Create Research Positions
Profile
Logout
Research Position title:
Starts: Month Day Year
Ends: Month Day Year
Description:
Time Commitment:
Hours/week
Research Field(s):
Required Qualifications:
Submit
View Student Apps
Applications
Daniel Semenko
View Application
Student 2
View Application
Student 3
View Application
View Research Posting
<Project Title>
Home
Create Research Positions
Profile
Logout
Students Targeted toward Advanced Research Studies (STARS) program
Starts: <Start Date>
Ends: <End Date>
<Description>
Time Commitment: <Time C.>
Research Field(s): <RF>
Required Qualifications:
<Qualifications>
Contact:
<Faculty Name>
<Faculty Email>
<Faculty Phone Number>
View Student Applications
Delete Posting
View single Application
Name:
GPA:
Technical Elective Courses:
Research Topics Interest:
Programming Languages
Prior research experience
Current Status:
Pending
Update Status:
Update
Pending
Approved for Interview
Hired
Not Hired
View student's other applications


View Student's Other Apps
Students Targeted toward Advanced Research Studies (STARS) program
Pending
McNair Achievement Program
Not Hired
Research Scholars:
Approved for Interview
Undergraduate Research Team
Hired!