SOFTWARE REQUIREMENTS SPECIFICATION
STUDENT TO RESEARCH CONNECTIONS

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REVISION HISTORY

NAME	DATE	CHANGES	VERSION
Cooper Page	10/11/2023	Initial Outline	1.0

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1.0 INTRODUCTION

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1.1 DOCUMENT PURPOSE

- This documents purpose is to lay out a roadmap and outline of the student to research opportunities application. It is only intended to be viewed internally by developers on the project, their managers, and the customer of the company requesting this application to be built.

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1.2 PRODUCT SCOPE

- This document will focus on the Student to Research Connections. The application's goal is to provide a platform to connect students to research taking place at a University. The benefit of implementing this software at a University is a large increase in how streamlined the process of finding undergraduate lab members for professors as well as a streamlined process of students to get connected to research taking place on campus that they are interested in.

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1.3 DOCUMENT OVERVIEW

- The rest of this document will go over the following. It will identify the customers, stakeholders, and users. Then it will specify the intended use cases of the application. It will move on and identify the non-functional requirements of the application. Then it will briefly overview the user interface as we as specify the backlog on the project. Finally, this document will provide all references used in developing this project.

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2.0 REQUIREMENTS SPECIFICATION

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2.1 CUSTOMERS, STAKEHOLDERS, AND USERS

- Because research positions are created by individual professors at a university, and individuals at the university are able to sign up for available research positions. The customer of our application can be generalized to all universities. The users of the application are research professors and students interested in research opportunities. The stakeholders of this project are the developers, their management and upper management, as well as the universities that decide to implement the application.

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2.2 USE CASES
Student user: A WSU student looking for and applying to research positions.

User Story:
As a student user, I can create an account and enter my profile information

Name	Create Student Account
Users	Student
Rationale	When a new student joins the program, they add their information to the system.
Triggers	The student intends to create a new profile.
Preconditions	The new student's information is not already in the system.
Actions	1. The user indicates to register as a student in the application. 2. The system will display the "student_registration" page 3. The user will then enter their WSU email, a password, a unique phone number, student's firstname, lastname, and WSU ID. 4. The user will then choose their major from the listed options, enter their cumulative GPA, graduation date, and select their primary campus. 5. The user then selects their research topics and programming languages from predetermined lists, enters prior research experience, and submits the form. 6. The system validates the entered contact information (should be less than 60 characters and should not include invalid characters). 7. The system will save the student's information to the system and acknowledge that the student has registered. 8. The system will navigate to the "student_login" page.
Postconditions	The new student's information is added to the system.
Acceptance Tests	Check if the student's information is saved correctly.
Milestone	Iteration - 1

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User Story:

As a student user, I can log in to the portal after registering

Name	Student Login
Users	Student
Rational	When a student user has previously registered, they can log in to access the student view pages.
Triggers	The user opens any page other than registration when not logged in.
Preconditions	The student's account has been registered in the system.
Actions	1. The system will display the "student_login" page 2. The user enters their respective username and password and submits the form. 3. If the information matches a registered user, the user navigates to the student home page. 4. If the information is incorrect a notice will appear that the username or password was incorrect.
Postconditions	The user is logged in and can access their assigned pages, as well as being redirected to the home page.
Acceptance Tests	Check that the entered information matches a student in the database when the user is logged in successfully.
Milestone	Iteration - 1

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User Story:

As a student user, I can view all the open research positions

Name	Viewing Research Positions
Users	Student
Rational	When a student user is logged in, they can view open research positions
Triggers	The user intends to view open research positions.
Preconditions	The student has successfully logged in.
Actions	1. The current user indicates to view research positions 2. The system will display the "student_homepage" page, containing basic information for each position already added to the system, as well as detailed information for the selected post. 3. The system will display the following for the selected post: Project title, goals/objectives, start/end date, reqired time commitment, applicable fields, required language experience, miscellaneous, faculty info 4. The current user can select any of the listed positions to view its details. 5. The system will then display the selected position in detailed form, and the user can choose to apply which submits the form. 6. The system will then redirect to the application form page.
Postconditions	The application form for the selected position is displayed.
Acceptance Tests	Check whether: (i) the open positions are displayed properly (ii) the application form is redirected to and displayed when the apply button is clicked
Milestone	Iteration - 1

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User Story:

As a student user, I can apply for research positions

Name	Applying to Research Positions
Users	Student
Rational	When a student user is logged in, they can apply to research positions
Triggers	The user clicks the 'apply' button on a selected position on the homepage.
Preconditions	The student has successfully logged in and chosen a position to apply to.
Actions	1. The current user navigates to apply to a research position 2. The system will display the "application" page 3. The user will enter their cover letter for the position as well as contact information for a reference, and submits the form. 4. The system will then validate and save the application information and display a notice that the application was submitted. 5. The system will then redirect to the student_applications form page.
Postconditions	The new application information is added to the system and will appear in the student's application list on the student_applications page as well as the faculty application list on the faculty_applications page
Acceptance Tests	Check whether: (i) the new application appears in the student_applications page (ii) the new application appears in the faculty_applications page (iii) the new application information was saved correctly
Milestone	Iteration - 1

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User Story:

As a student user, I can view my applications and their status, and withdraw pending applications.

Name	Viewing Applied Positions
Users	Student
Rational	When a student user is logged in, they can view the positions they have applied to and their statuses
Triggers	The current student user intends to view their submitted applications.
Preconditions	The student has successfully logged in. Applications must be pending to be withdrawn.
Actions	1. The current user indicates to view their applications. 2. The system will display the "student_applications" page. 3. The system will display the information for and status of any applications already in the system. 4. The student can choose to withdraw from any pending application 5. The system will then display the updated student_applications form page.
Postconditions	Any withdrawn applications will be removed from both the "student_applications" page list and the respective "faculty_applications" page list
Acceptance Tests	Check whether: (i) withdrawn applications no longer appear in the student_applications page (ii) withdrawn applications no longer appear in the faculty_applications page (iii) withdrawn application(s) information was deleted correctly
Milestone	Iteration - 1

Faculty User: A WSU faculty member seeking applicants to research positions

User Story:
As a faculty user, I can create a faculty account and enter my profile information

Name	Create Faculty Account
Users	Faculty
Rationale	When a new faculty member joins the program, they add their information to the system.
Triggers	The faculty member intends to create a new profile.
Preconditions	The new faculty's information is not already in the system.
Actions	1. The user indicates to register as a faculty member in the application. 2. The system will display the "faculty_registration" page 3. The user will then enter their WSU email, a password, a unique phone number, firstname, lastname, and WSU ID. 6. The system validates the entered contact information (should be less than 60 characters and should not include invalid characters). 7. The system will save the faculty member's information to the system and acknowledge that the member has registered. 8. The system will navigate to the "faculty_login" page.
Postconditions	The new faculty member's information is added to the system.
Acceptance Tests	Check if the faculty member's information is saved correctly.
Milestone	Iteration - 1

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User Story:
As a faculty user, I can log in after registering

Name	Faculty Login
Users	Faculty
Rational	When a Faculty user has previously registered, they can log in to access the Faculty view pages.
Triggers	The user opens any page other than registration when not logged in.
Preconditions	The Faculty user's account has been registered in the system.
Actions	1. The system will display the "Faculty_login" page 2. The user enters their respective username and password and submits the form. 3. If the information matches a registered user, the user navigates to the Faculty home page. 3. If the information is incorrect a notice will appear that the username or password was incorrect.
Postconditions	The user is logged in and can access their assigned pages, as well as being redirected to the home page.
Acceptance Tests	Check that the entered information matches a Faculty user in the database when the user is logged in successfully.
Milestone	Iteration - 1

SOFTWARE REQUIREMENTS SPECIFICATION
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User Story:

As a faculty user, I can log in to the portal after registering

Name	Faculty Login
Users	Faculty
Rational	When a faculty user has previously registered, they can log in to access the faculty view pages.
Triggers	The user opens any page other than registration when not logged in.
Preconditions	The faculty member's account has been registered in the system.
Actions	1. The system will display the "faculty_login" page 2. The user enters their respective username and password and submits the form. 3. If the information matches a registered user, the user navigates to the faculty home page. 3. If the information is incorrect a notice will appear that the username or password was incorrect.
Postconditions	The user is logged in and can access their assigned pages, as well as being redirected to the home page.
Acceptance Tests	Check that the entered information matches a faculty member in the database when the user is logged in successfully.
Milestone	Iteration - 1

SOFTWARE REQUIREMENTS SPECIFICATION
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User Story:
As a faculty user, I can create research positions

Name	Creating Research Positions
Users	Faculty
Rational	When a faculty user is logged in, they can create research positions
Triggers	The user clicks the 'post' button on the faculty home screen
Preconditions	The faculty member has successfully logged in.
Actions	1. The current user indicates to create a research position. 2. The system will display the "new_position" page. 3. The user will enter the project title, description, start/end date, miscellaneous info, and time commitment. 4. The user can select options from predetermined lists of applicable research and required programming languages. 5. The system will then validate the entered information and save it as a position to the database, as well as indicate that a new position was created. 6. The system will then redirect to the faculty home page.
Postconditions	The new position's data is saved to the system and will appear in the list of positions on the student homepage.
Acceptance Tests	Check whether: (i) the new position is displayed properly on the student homepage (ii) the position information is saved successfully
Milestone	Iteration - 1

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User Story:

As a faculty user, I can view student applications to my positions

Name	Viewing Student Applications
Users	Faculty
Rational	When a faculty user is logged in, they can view the students that have applied to their positions.
Triggers	The current faculty user intends to view their received applications.
Preconditions	The faculty has successfully logged in.
Actions	1. The current user indicates to view their received applications. 2. The system will display the "faculty_homepage" page. 3. The system will display the basic information and status of all applications already in the system, as well as detailed information about the selected application. 4. The user can select any application to view expanded information about it (GPA, technical electives, interested topics, language experience, research experience).
Postconditions	The selected student applications are displayed to the user
Acceptance Tests	Check that all pending student applications and statuses are displayed in the list
Milestone	Iteration - 1

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User Story:
As a faculty user, I can manage applications to my positions

Name	Managing Student Applications
Users	Faculty
Rational	When a faculty user is logged in, they can manage the students that have applied to their positions.
Triggers	The current faculty user intends to manage their received applications.
Preconditions	The faculty user has successfully logged in.
Actions	1. The current user indicates to manage their received applications. 2. The system will display the "faculty_homepage" page. 3. The user will either approve or deny an interview with position candidates, which will submit the form and update the application status on both the faculty and student application lists 4. Once a candidate has been approved for an interview, the user can then either hire or not hire the candidate, which will submit the form and update the application status to not available for all other users if hired, and update the candidates application to denied if not hired. 5. The system will save the changes to the application and display the updated applications list.
Postconditions	The selected student application is updated according to the decisions of the faculty user.
Acceptance Tests	Interview stage: Check that application status is updated in both faculty and user list, and saved to system. Hiring stage: Check that application is updated in faculty and all student lists if hired, and only updated in candidate list if not hired, as well as saved to the system.
Milestone	Iteration - 1

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2.3 NON-FUNCTIONAL REQUIREMENTS
- Students can find and access research positions: Research positions must be displayed and easily findable for students. Students should be able to filter positions to find those that suit their skills and interests.
- Researchers can find and contact qualified students for open positions: Researchers can parse through students and reach out to them to apply for a position, they may also post their research positions for students to find and apply.
- Students easily receive feedback on the status of their applications: Upon review by the researcher posting the position a student can quickly view

and reply to the student, and the student can instantly see the feedback in regards to their application (pending, approved for interview, accepted).
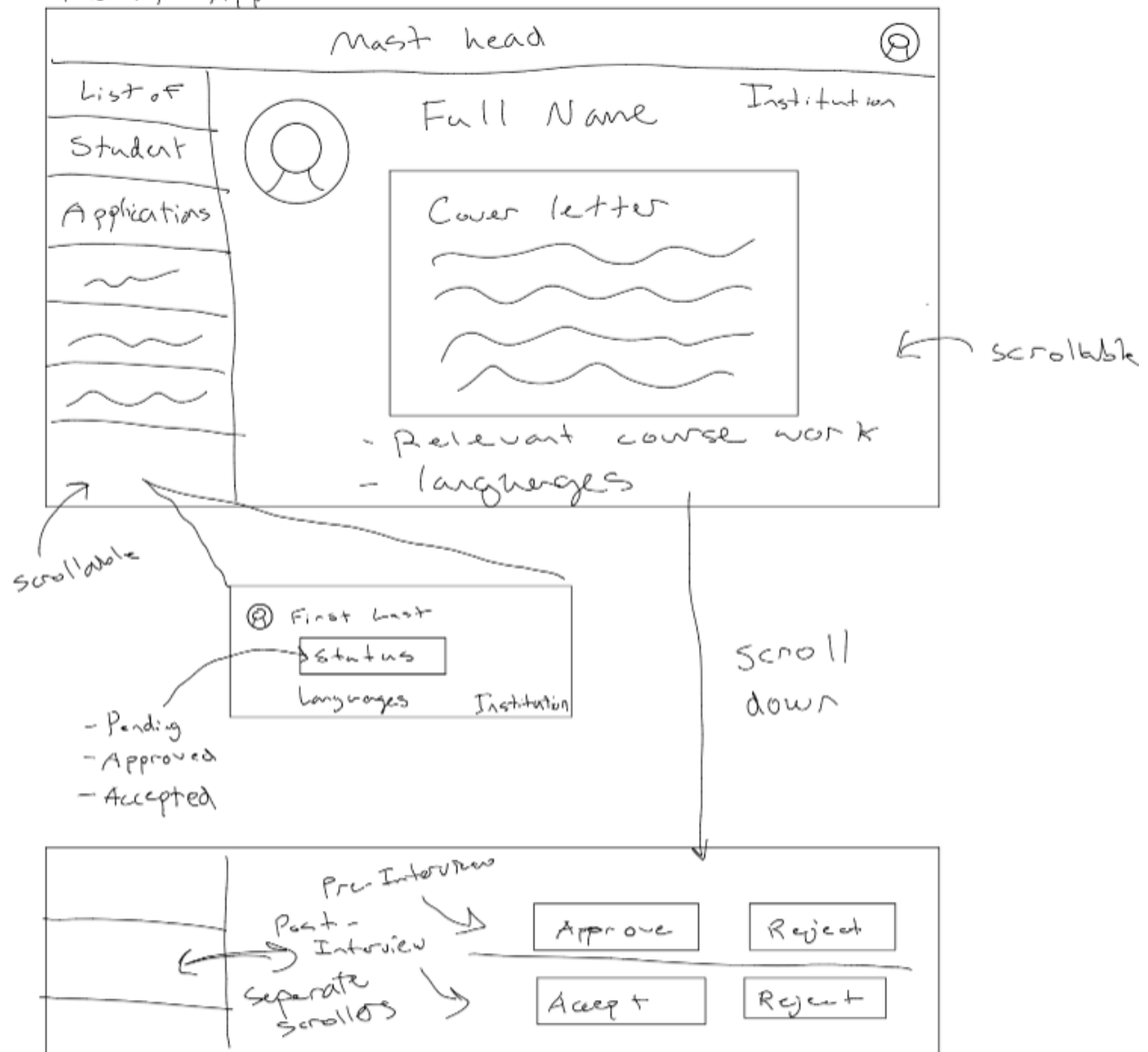-   Researchers can review full applications and easily respond: Researchers will have access to full applications from students in response to their posts. Researchers can easily approve for interview or reject, and then accept or reject students for their posted position.

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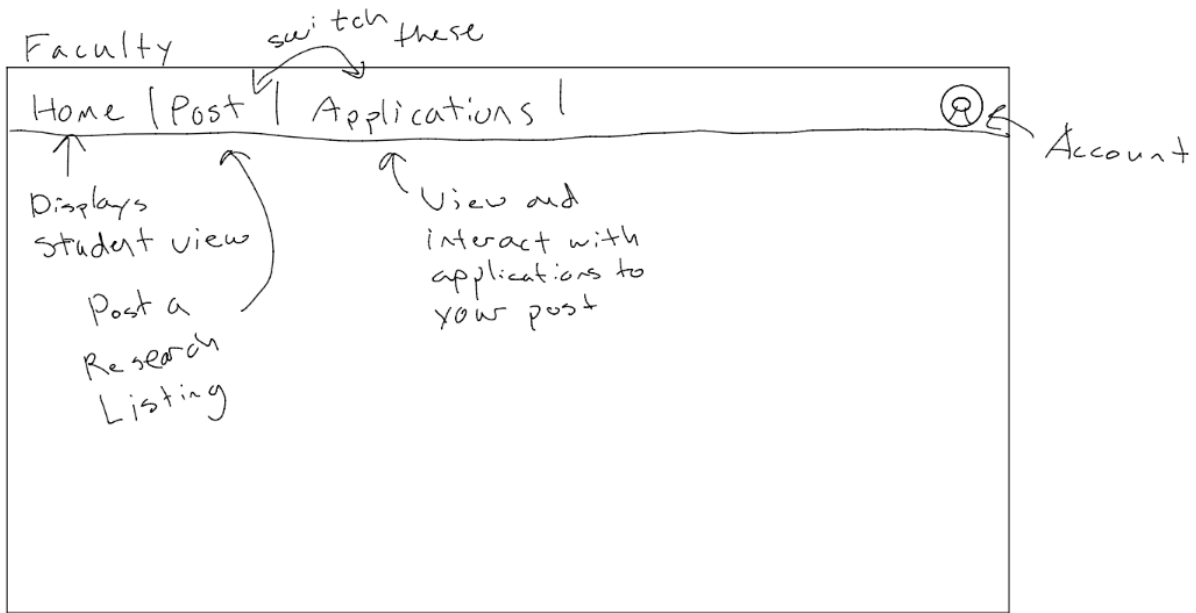## 3.0 USER INTERFACE

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Faculty - Applications

Mast head

List of
Student
Applications

Full Name   Institution

Cover letter

scrollable

- Relevant course work
- languages

scrollable

First Last
Status
Languages   Institution

- Pending
- Approved
- Accepted

Scroll down

Pre-Interview
Post-Interview
Separate Scrolls

Approve   Reject

Accept   Reject

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Faculty

switch these

Home | Post | Applications |

⊗ ← Account

Displays
student view

Post a
Research
Listing

View and
interact with
applications to
your post

Log in

email: _____

password: _____

Student

Faculty

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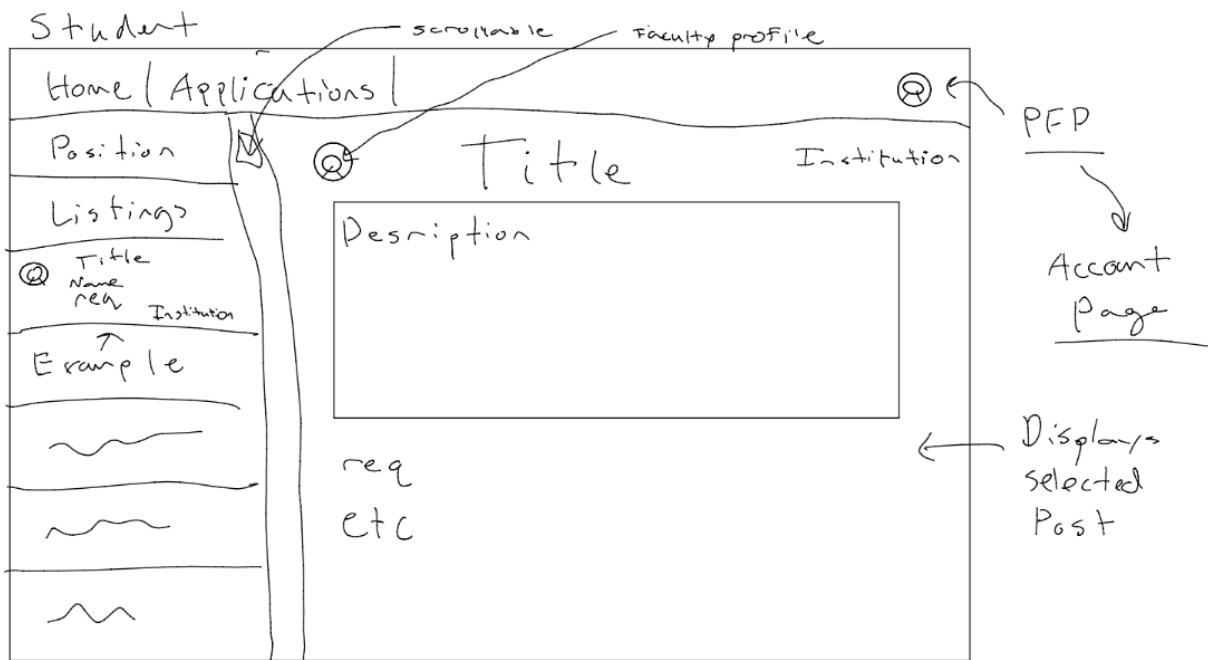
4.0 PRODUCT BACKLOG

- For more information about the applications backlog, please refer to the issue page below on github.

  Student to Research Opportunities - Issues

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5.0 REFERENCES
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- Student users should be able to sign into their own account.
- Student users should be able to view research positions relative to their skills.
- Student users should be able to search for specific research opportunities.
- Student users should be able to edit their profile.
- Student users should be able to see what skills are required for each research position.