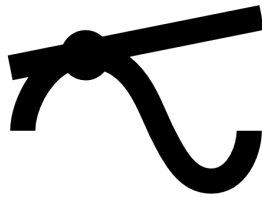# Research Position App

Requirements Specifications

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Course: CptS 322 - Software Engineering Principles I

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Document Revision History
Rev 1.0   10-13-2021 Initial Version

I.   Introduction

I.1.   Document Purpose
The purpose of this document is to detail the requirements that will need to be met in order to complete our Research Position app. It shows the use cases we will follow when programming our project and the steps that we will take to complete the project on time. It also shows some of the non-functional requirements that our project will include.

I.2.   Product Scope
This product will allow university students and faculty to connect easier via research positions. Faculty can use the software to advertise research positions to students. Students can create accounts with relevant information and apply for research positions, similar to LinkedIn or Handshake. Faculty can then browse applications and hire students based on their qualifications or contact them for further information.
The goal for this product is that universities which use this software will be able to fill research positions easier and provide students with more hands-on experiences.

I.3.   Document Overview
This document contains use cases and details on non-functional requirements.

II.   Requirements Specification

II.1.   Customer, Users, and Stakeholders
This software's customers will be universities who wish to make research positions more accessible to students. The project's stakeholders include the Computer Science 322 instructor, Sakire Arslan Ay, and Teacher's Assistants, Stuart Brown, Caden Weiner, Trevor Naze, and Avery Sonner-Zabotel. This software's users will include students and university research faculty.

II.2.   Use Cases - for this project we decided to split up our use cases into student use cases and faculty use cases in order to decrease coupling in the future

STUDENT USE CASES:
Student use cases involve actions that student users can take when interacting with the software.

Use case # 1

Name	Create Account
Users	Student
Rationale	Students will need personalized lists to keep track of all their research opportunities.
Triggers	Login option
Preconditions	No student is currently logged in

Actions	Create a profile for the Student containing their username and password, their contact information, their GPA, their completed technical elective courses and the grades for them, their interests in research topics, the programming languages they have experience in, and any prior research experience
Alternative paths	N/A
Postconditions	Students have a personal profile
Acceptance Tests	Student is able to log in with created account
Iteration	1

Use case #2

Name	View Research Positions
Users	Students
Rationale	Students will need to be able to view possible research positions
Triggers	View Research Positions button
Preconditions	Students are logged in
Actions	Research positions and relevant information for each position are displayed on the screen
Alternative paths	N/A
Postconditions	Research positions are displayed with all their information
Acceptance Tests	Display positions on a screen
Iteration	1

Use case #3

Name	Apply for position(s)
Users	Student
Rationale	Students want to be able to apply for the research positions they see
Triggers	Student clicks 'apply'
Preconditions	A user is logged in with a student account, there is a position available, and the application message has content
Actions	Apply student for the position, notify professor that an application was made
Alternative paths	User can apply for multiple positions and cancel their current applications
Postconditions	Student has applied for the research position
Acceptance Tests	Application exists in the system with the message and email reference
Iteration	2

Use Case #4

Name	Displayed research positions can be filtered
Users	Students

Rationale	Students will want to be able to filter out irrelevant research positions to their interests
Triggers	Filter button
Preconditions	Students are logged in
Actions	Students click on check marks that apply to either their intended fields
Alternative paths	Undo filter
Postconditions	Visible positions meeting filter criteria are the only positions visible
Acceptance Tests	Attempt to filter the viewed positions
Iteration	3

Use Case #5

Name	Delete Application
Users	Student
Rationale	A student might want to delete their application if they no longer want the research position.
Triggers	User clicks 'delete'
Preconditions	User is logged in as student
Actions	Removes application placed by the logged in student, deletes the application from database
Alternative paths	Undo delete?
Postconditions	Application is deleted, student is no longer applied for the research position
Acceptance Tests	Check to make sure application is deleted and doesn't exist anymore
Iteration	2

FACULTY USE CASES:
Faculty use cases involve actions that faculty users can take when interacting with the software.
Use Case #1:

Name	Create Account
Users	Faculty
Rationale	Faculty will need the ability to post research positions for students to apply for
Triggers	Login option
Preconditions	No faculty is currently logged in
Actions	Create a profile for the user
Alternative paths	N/A
Postconditions	Faculty have a personal profile
Acceptance Tests	Faculty is able to log in with created account
Iteration	1

Use Case #2

Name	Create Research Positions
Users	Faculty
Rationale	The Faculty will need to post research positions for the Students to apply for
Triggers	Create Research position button
Preconditions	Faculty is logged in
Actions	Faculty fills out title of position, what the position will entail, start and end date, how long students will need to work for weekly, what fields the position will apply to, and the qualifications
Alternative paths	N/A
Postconditions	Research position is created
Acceptance Tests	Attempt to create a research position
Iteration	1

Use Case #3

Name	View applications
Users	Faculty
Rationale	Faculty should be able to view all of the applications that were sent to the research position that they posted
Triggers	Faculty clicks 'view applications' option
Preconditions	Faculty member is logged in and has a research position posted
Actions	Displays all applications related to the Faculty members post
Alternative paths	View different applications for other posts
Postconditions	A list of applications is shown to the Faculty member
Acceptance Tests	Attempt to view applications to a research position
Iteration	2

Use Case #4

Name	View qualifications
Users	Faculty
Rationale	The Faculty will need to see if the Students who applied will be qualified for the position
Triggers	Faculty clicks 'View Applications' button
Preconditions	Students have applied for the position
Actions	GPA, elective courses, research interests, programming language experience, and prior research experience for each student are displayed beside their name

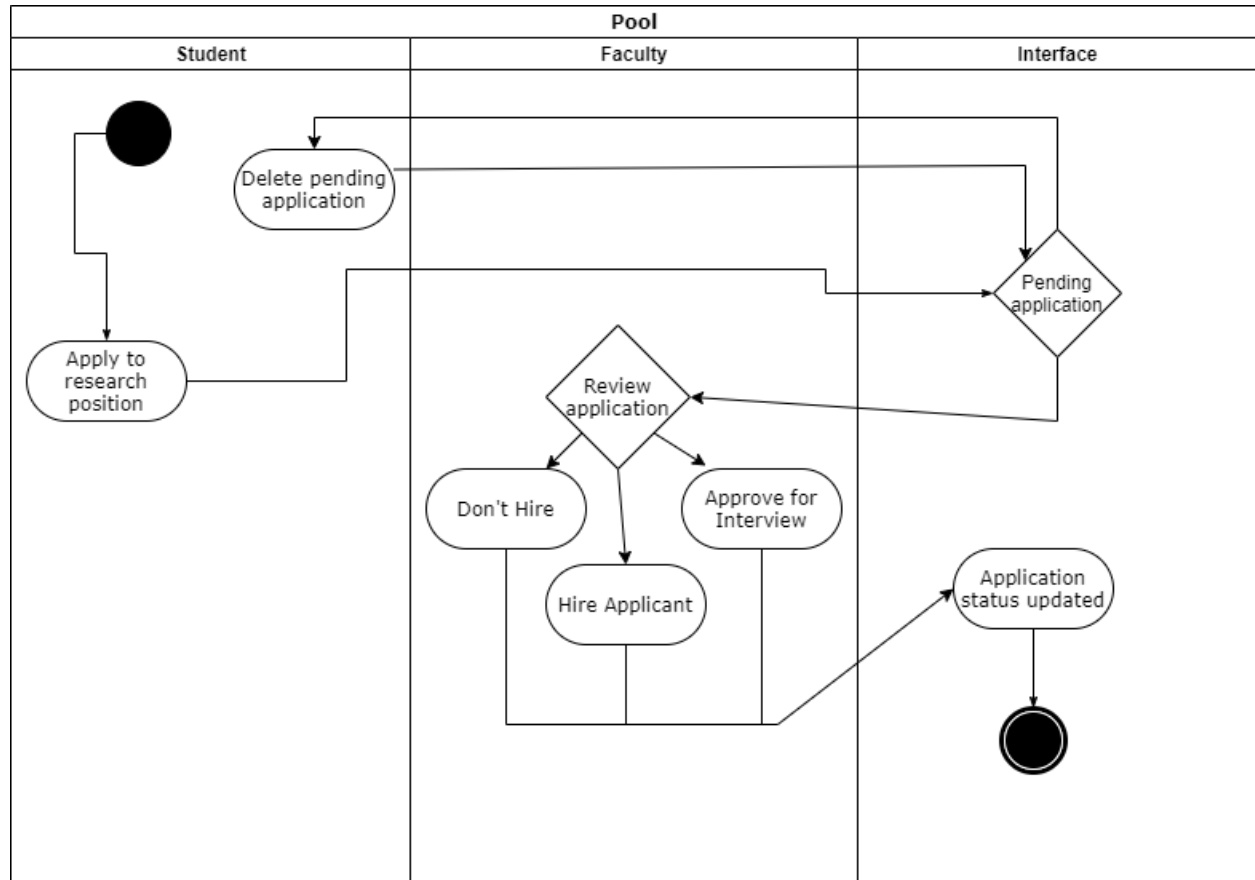|	
Alternative paths	N/A
Postconditions	Student qualifications are displayed
Acceptance Tests	Click on the view applications button for a research position that has applications
Iteration	3

Use Case #5

Name	Delete Research Position
Users	Faculty
Rationale	Faculty members need to be able to delete their posted research positions once the jobs fill up so they don't receive unwanted applications
Triggers	Faculty clicks 'delete' option
Preconditions	A user is logged in as faculty
Actions	Delete the posted research position
Alternative paths	Undo delete/reopen position
Postconditions	Research position is deleted and no longer accessible by students
Acceptance Tests	Attempt to view deleted research position
Iteration	2

Use Case #6

Name	Change status of applications
Users	Faculty
Rationale	The faculty will need to mark whether their applicants are cleared for an interview and whether they get hired or not
Triggers	Faculty hits "Update Application" button
Preconditions	Students have submitted an application for a research position
Actions	Faculty can change the status of the application to "Cleared for Interview", "Hired", or "Not Hired". Default state is "Application Pending"
Alternative paths	N/A
Postconditions	Student application gets updated
Acceptance Tests	Change the status of an application
Iteration	3

SWIMLANE DIAGRAM:
This diagram details the process of a student applying for a research position and awaiting a faculty member's approval or disapproval of the application.

II.3.   Non-Functional Requirements

1. Format Page: Display posts based on the size of the screen similar to what we did in smile app

2. Page needs to be visually pleasing: Page colors need to not make people want to gouge their eyes out

3. Security: Validate passwords and protect private login information

4. Testability: This app should be testable throughout its production

III. User Interface
User Interface will be similar to Smile app, research positions will be displayed in the middle of the page with hyperlinks to login/logout, home page, and specific user functions at the top. Specific links and actions will only be accessible to logged in users.