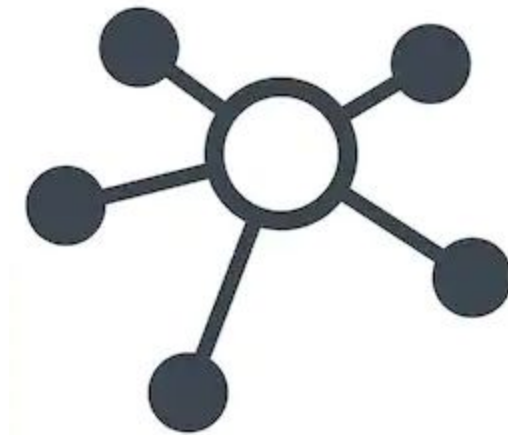


WSU TA Management

Requirements Specifications



Team Kappa

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Course: CptS 322 - Software Engineering Principles I

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I. Introduction

The purpose of this project is to develop a tool to enable teachers to easily find willing assistants for their classes. The final version will allow students to maintain a profile containing their contact information and course interests, and instructors to select a teaching assistant from those students. Section II will more thoroughly explain these goals and how they will be maintained and section III will list specific requirements for the user interface.

Document Revision History

Rev. 1 10/7/2019 Initial Version

II. Requirements Specification

II.1. Customer, Users, and Stakeholders

There will be two primary users of this software: students and teachers. The students must be able to maintain their contact information, and must be able to apply to courses that they are interested. The teachers must be able to view the applicants to their own classes and contact those applicants. The customers for this project are the schools that wish to use the software; in this case Washington State University. The stakeholders in the project include the teachers and the students at the school. The teachers will be affected in that they need to find applicable assistants, and students will benefit from having better teaching assistants to help them.

II.2. Use Cases

The actors involved with this project include students and instructors. The students, who are interested in becoming a teaching assistant, are the regular users. They enter information about themselves and their interests, and save it so it can be viewed/selected by an instructor. The instructors, who have administrator-like abilities for their courses, look at all the student applications for their courses, and can then decide who they want their TA to be.

Use case # 1

Name	Create a profile
Users	Students, Instructors
Rationale	Both students and instructors must be able to create a profile within the software in order to utilize it.
Triggers	Users select the "Create Profile" option
Preconditions	User is on the main page and not logged in.
Actions	<ol style="list-style-type: none">1. User inputs name, contact information, and whether they are an instructor or a student.2. System receives input and creates an entry in the relevant database for the new user.3. System returns to main page, logged in.
Postconditions	The system has created a new user account for the student or instructor, and the user is returned to the main page logged in.

Acceptance Tests	Two tests: One which creates a student account and one which creates a teacher account. Once a profile is created, the test instructor account should be able to post a class and the test student should be able to view and apply for the class.
Iteration	Iteration 1

Use case # 2

Name	Login
Users	Students, Instructors
Rationale	Students and instructors must be able to login to their accounts
Triggers	Users select the “Login” option
Preconditions	Users are on the main page and not logged in
Actions	<ol style="list-style-type: none"> 1. User clicks on “login” and prompts software to open login page 2. User inputs username and password 3. System receives input and checks database to see if username/password exists and is correct 4. If information is correct, the system returns the user to the main page and is logged in; else system tells user incorrect username/login and to try again
Postconditions	The user is returned to the main page logged in.
Acceptance Tests	The test instructor account should be able to post a class and the test student should be able to view and apply for the class.
Iteration	Iteration 2

Use case # 3

Name	Display profile
Users	Students, Instructors
Rationale	Students and instructors must be able to view their own profile.
Triggers	Users select the “Profile” option
Preconditions	Users are logged in.
Actions	<ol style="list-style-type: none"> 1. User selects the “Profile” option. 2. System retrieves user information. 3. System redirects user to profile page and populates page with data.
Postconditions	The user is on a page with their user information displayed.
Acceptance Tests	A test account is logged in and the “Profile” option is selected in order to test this. If the profile is successfully displayed, then the test is successful.
Iteration	Iteration 2

Use case # 4

Name	Edit Profile
Users	Instructor, student
Rationale	Users must be able to edit their own profile.
Triggers	User selects "Edit Profile" option
Preconditions	User is viewing their profile.
Actions	<ol style="list-style-type: none"> 1. User selects "Edit Profile" option. 2. System displays fields to input new information with old information pre-filled in 3. User edits desired fields and submits. 4. System updates profile with new data. 5. System redirects user to profile page.
Postconditions	Profile page is displayed with updated information.
Acceptance Tests	Tested by attempting to update an existing profile. If the newly displayed profile is correct, then the test is successful.
Iteration	Iteration 2

Use case # 5

Name	Display all courses
Users	Instructor, student
Rationale	Courses must be displayed for all users.
Triggers	User is on main page.
Preconditions	User is logged in.
Actions	<ol style="list-style-type: none"> 1. System retrieves all course listings from database. 2. System inserts listings into the page.
Postconditions	Courses are displayed on the main page.
Acceptance Tests	Tested by going to the main page once at least one course is in the database. If the course is displayed properly, the test is successful.
Iteration	Iteration 2

Use case # 6

Name	Create a class listing
Users	Instructor
Rationale	Instructors must be able to create a class listing for potential applicants to view.
Triggers	Teachers select an option to create a new listing.
Preconditions	User is logged in as an instructor.
Actions	<ol style="list-style-type: none"> 1. Instructor selects option to create a new listing. 2. User is redirected to a new page where they input the name of the class and a description of the requirements for the teaching assistant.

	3. System takes input and creates a new entry in the table of classes. 4. User is redirected to the main page.
Postconditions	A new posting is created and inserted into the page.
Acceptance Tests	A test posting can be created with some inputs. If the listing is viewable, then the use case functions properly.
Iteration	Iteration 2

Use case # 7

Name	Select a class
Users	Students, Instructors
Rationale	Both students and instructors should be able to select a class that they are either interested in or need to view the information of.
Triggers	Users select a class from the main page.
Preconditions	User is on the main page and logged in.
Actions	1. User selects a class from the list on the main page. 2. System retrieves the class information and directs the user to a page where that information is displayed.
Postconditions	User is on a page displaying the information for the class.
Acceptance Tests	Once a test class is created, this can be tested by selecting the class on the main page.
Iteration	Iteration 3

Use case # 8

Name	Apply for a TA position
Users	Students
Rationale	A student must be able to apply for a position that they are interested in.
Triggers	Users select the "Apply" option.
Preconditions	User is on a class listing.
Actions	1. User selects the "Apply" option. 2. System retrieves user information. 3. System inserts information into course item in the database.
Postconditions	The student is added to the list of students interested in the class.
Acceptance Tests	Test will have a student account attempt to apply for a test class. If the teacher account associated with the test class is able to view the information for the student, the test is successful.
Iteration	Iteration 3

Use case # 9

Name	Approve a TA application
Users	Instructors
Rationale	An instructor must be able to approve a TA application
Triggers	User selects “Approve” option on an applicant.
Preconditions	User is on their posted class listing.
Actions	<ol style="list-style-type: none"> 1. User selects “Approve” option on an applicant. 2. System changes class listing to closed. 3. System selects approved applicant and lists them on the course listing.
Postconditions	Class no longer accepts new applicants and lists the approved applicant.
Acceptance Tests	Test will have two test applicants to a test course. One of the two will be selected. The test will be successful if the listing lists the selected student as the TA for the course and if the class no longer accepts new applicants.
Iteration	Iteration 3

Use case # 10

Name	Rescind TA application
Users	Students
Rationale	A student must be able to rescind an application for a TA position.
Triggers	Users select the “Cancel Application” option.
Preconditions	User is on a class listing that they applied for.
Actions	<ol style="list-style-type: none"> 1. User selects the “Cancel Application” option. 2. System removes their application from the list.
Postconditions	The student is removed from the list of students interested in the class.
Acceptance Tests	Test will have a student account that has applied for a position attempt to delete their application. If successful, then the teacher account associated with the listing will be unable to see their application.
Iteration	Iteration 3

Use case # 11

Name	View TA applications
Users	Instructors
Rationale	An instructor must be able to view any applications for their class listings.
Triggers	Users select the “View Applications” option.
Preconditions	User is on a class listing that they posted.
Actions	<ol style="list-style-type: none"> 1. User selects the “View Applications” option on a class they posted. 2. System retrieves list of applicants associated with listing. 3. System redirects user to page populated with list of students that applied.


Postconditions	List of students that applied for the TA position is displayed.
Acceptance Tests	Test will have a test class that a test student account applied for. If the student is displayed on the page, then the test is successful.
Iteration	Iteration 3

II.3. Non-Functional Requirements

1. Security: The system should not disclose certain personal professor information.
2. Compatibility: the system should be compatible with most major browsers (Chrome, Safari, Edge, Firefox).
3. Verification: The system only accepts WSU emails when users create a login.
4. Security: The system encrypts and stores user passwords.
5. Compatibility: Support mobile browser and smaller screen devices.

III. User Interface Requirements

There are 2 main pages of the user interface. The student page and the instructor page. Each required element for these 2 pages is pictured below. While many of these can be altered or moved around, the basic idea must remain the same. Each mockup we created has a short description below it of what is going on in the image.



Website Name

Sign up
(Student)

Already have an account? [Login](#)

Students

Instructors

About You

Logged in as: James@wsu.edu

Contact information

Name:

Last name:

WSU ID:

Email:

Phone:

Additional information

Major:

Cumulative GPA:

Expected graduation date:

TA experience:

Course preferences

Add course

Course #:

Grade Earned:

Year/Semester taken:

Year/Semester applying:

Served as a TA for this course before?

Add course

Cancel

List of preferred courses


CptS 121	Remove
CptS 122	Remove
CptS 317	Remove
CptS 355	Remove
CptS 322	Remove
<input type="text"/>	

Save

Cancel changes

The Students page. Here, we can see what requirements are needed for this page. The user must be able to:

- Create a student account and login to this account.
- Enter contact information
 - >Name, last name, WSU ID, email, phone number
- Enter additional information
 - >Major, cumulative GPA, expected graduation date, TA experience
- Enter course preferences
 - >Course number, Grade earned, year/semester taken, year/semester applied, and if they have TA experience in this course.
 - >A list of preferred courses for the users TAs, where they can add or remove courses
- Save or cancel changes



Website Name

Sign up
(Instructor)

Already have an account? [Login](#)

Students

Instructors

About You

Logged in as: James@wsu.edu

Contact information

Name:

Last name:

WSU ID:

Email:

Phone:

Courses currently teaching

Add course

Course #:

Add course

Cancel

CptS 355

Remove

CptS 322

Remove

Students who applied for TAship

Course	Student Name	Student Info	Availability	Assign
CptS 355	John, Jim	...	NO	
CptS 355	John, Doe	...	YES	
CptS 355	Johnson, Jake	...	YES	
CptS 322	Jimmy, Johnson	...	YES	

Save

Cancel changes

The Instructors page. Here, we can see what requirements are needed for this page. The user must be able to:

- Create an instructor account and login to this account.
- Enter contact information
 - >Name, last name, WSU ID, email, phone number
- Enter the courses that this instructor is currently teaching
 - >A list of all courses they are teaching will be shown, with different labs within a course listed as a separate course entirely.
- See list of students who applied for TAship in instructor's class
 - >Course number and student information is shown, including whether or not that student is still available to be a TA.
 - >Ability to assign that student to on of the instructor's classes, or remove that student from the list.
- Save or cancel changes