

3 Account Features

3.1 Account Descriptions

There will be four different account types: student, grader, teacher, and administrator. ~~Once a user logs into the system using their SSO, they will be redirected to a page where they are asked to select what account type they will proceed as. The account types they can choose from will be dependent on their EWU ID and the associated accounts. Therefore if a user has several account types associated with their EWU ID, they are forced to use one at a time.~~

3.2 Student

The student account type is intended for students who plan on taking the APE at Eastern Washington University. The student will be instructed to log in with their Single-Sign-On accounts allowing the system access to their EWU account information (EWU ID number, EWU email, etc.).

- ✓ If the student is logging in for the first time, the system will add them to the Student Table in the Database.

3.2.1 Functionality

The student account will be capable of doing the following:

- ✓ • Register for an APE
 - Students will be able to register for any of the APEs available to them.
- ✓ • Unregister for an APE
 - Students will be able to unregister for any APE that they are registered for.
- ✓ • View their grade for an APE
 - ✗ ○ Students will be notified once grades for a specific APE are posted.
 - ✓ ○ Students will be able to log into their account and view their grade for any APE they have taken.

3.2.2 Registration for APE

Once a student account type logs in, the system will automatically redirect them to the Student Homepage. On this page the student can choose to register for an available APE. Once the student is registered for the APE, the system will send them an email to their EWU email account confirming their selection with details about the APE.

- ✗ Once the date of the APE comes closer, the student will get a reminder email from the system with location and time information for the APE they have signed up for.

3.2.3 Student Homepage

Once the student account type has logged in and been redirected to the Student Homepage, they will be able to view current APEs that are available for registration, previous APEs and scores, and APEs they are currently registered for.

Exam page

- ✓ On the homepage, they will also have access to the APE coordinator's contact information as well as download links for practice/previous APEs.

3.3 Grader

✓ The grader account type is intended for a faculty member within the Computer Science Department that will be grading an APE. The account will be created by the Admin ~~with a username and password that is to be assigned to a grader~~. The grader will grade APEs by seat numbers. No names or personal information will be visible to the grader to help keep grading impartial.

3.3.1 Functionality

The grader account will be capable of the following:

- Viewing APEs assigned to them
 - ✓ ○ Graders will only be able to access and grade APEs that the Administrator account or a teacher account has assigned to them.
- ✓ • Grading an APE
 - The grader will have access to all the seat numbers associated with a given APE.
- ✓ • Submitting Scores
 - The Grader will be able to enter and save scores for APEs assigned to them.
 - Once an APE is fully graded and submitted to the Admin, the grades cannot be edited by the grader.

3.3.2 Grading an APE

✓ When the grader is ready to grade an APE that is assigned to them, they will click on the APE and see a list of seats. Each seat will be associated with an APE that was taken by the student sitting at that assigned seat. Every grader will be assigned certain categories for a given APE.

There will be a max number of points that can be given in each category that will be set by the account type that created the APE (Teacher or Administrator). This max number of points cannot be exceeded by the grader and the grader cannot submit scores below 0. *UI only / needs backend check*

✓ Once the grader is ready to submit the grades, ~~they will submit them to the account that created the specified APE and the exam will no longer be visible to the grader~~. This will return them to their homepage which shows them the APEs that are assigned to them that still need to be submitted.

The following label colors indicating the following grading states:

Grading Not Started	The grader has not yet entered any grades for this APE.
Grading in Progress	The grader has started entering grades for this APE but has not yet submitted the exam.

✓ 3.4 Teacher

The teacher account type is intended for professors in the department that teach CSCD 211 classes.

3.4.1 Functionality

The teacher account will be capable of the following:

- ✓ • Creating an APE

- ✓ ○ This APE will only be visible to the teacher that created the APE, assigned graders at the appropriate state, and the administrator.
 - ✓ ▪ No students will have access to this APE.
- X ○ The teacher that creates this APE will also have the ability to grade it and add/remove students from it. X ✓
- X • Upload list of students to auto register them for created APE
 - Teachers will be able to submit a .csv file to the system with the following information in order:
 - EWU ID number
 - ~~Last Name, First Name~~ First name, Last name
 - EWU Email Address
 - The system will then be able to register these students for the APE created by the teacher.

3.4.2 Creating and Grading an APE

✓ The teacher will have the ability to create an APE specifically for their class. They will be able to choose/add different categories, specify graders for each category, the max number of points that can be given in each category, and the ability to override any state that the system automatically gives the created APE.

X The teacher can grade the APE they create. The system will treat the teacher's grades the same as a grader's grades. The system will make sure that all the grader's and teacher's scores difference is within a certain range (set by the APE creator). X If the difference is not within that range, the system will flag the seat number and require administrator attention. The system will finalize the score and it will be visible to only the teacher and administrator.

3.4.3 Restricted Administrative Rights

? The teacher will have very similar rights when it comes to creating an APE, viewing grades for an APE created by them, and finalizing scores when compared to an administrator account type. The teacher will be able to make edits to final pass/fail grades if the student's final score puts them in the "Under Review" state. The administrator has the ability to override any decisions made by the teacher when it comes to grades and passing/failing students. Once the administrator makes edits, the teacher cannot reverse those changes.

3.5 Administrator

There can only be a maximum 2 of this account type. With this account, the user has ultimate control over the whole system and can override any system or other account type actions.

✓ 3.5.1 Functionality

The administrator account will be capable of the following:

- ✓ • Look up students, graders, and teachers accounts
 - ~~The system will display the results sorted by account type~~
- ✓ • Add users for any of the account types ~~(except administrator account type)~~ to the APE database
- ✓ • Edit any account information or state of an account

- ✓ ○ When a student account has completed and passed an APE, the system will put them in the ~~"Not Allowed to Register"~~ state. This account type is able to override this and change the state for the account. *Blocked*

- ✓ • View archived APEs
 - This account type will be able to look up past APEs that have been archived and see all the following information:
 - Students who took that APE
 - Scores for the APE
 - Information about the location, duration, and categories
 - ✗ ▪ Graders that were assigned to the APE and the grades they gave

- ✗ • Upload APEs for students to practice
 - Upload APEs to the student homepage with downloadable links for students to access.

- ✓ • Add, edit, and remove category types
 - ✓ ○ These categories will be available for teacher accounts to use when they are creating their APEs.
 - ✓ ○ The max number of points possible will be set by the administrator at APE creation.
 - Max number of points will not be linked to categories.
 - ~~There will be default options like the following:~~
 - ~~"Default APE Categories"~~
 - ~~"Stu's 211 Class"~~

- ✓ • Add, edit, and remove locations
 - This account type will be able to create, edit, or remove different locations where the APEs can be held.

- ✓ {
 - Create an APE
 - Generate Reports
 - ~~Pass/Fail students manually~~ *Change state*
 - Register/Unregister Students for an APE

✓ 3.5.2 Creating an APE

The administrator will have the ability to create APEs that students are able to register for. The administrator will be able to add/modify the following features of an APE:

- | | |
|--------------|----------------------------|
| • Start time | • <i>Name</i> |
| • Duration | • <i>Date</i> |
| • Location | • <i>Register Deadline</i> |
| • Categories | • <i>Passing Grade</i> |
| • State | • <i>Possible Grade</i> |
| • Graders | |

- ✗ When a crucial part of the APE is modified and students have already registered for the APE, the system will send them an email with the updated APE information.

✓ 3.5.3 Creating Accounts

The administrator will be able to create and add the following accounts to the APE database:

- Students

- Graders
- Teachers

✓ 3.5.4 Creating/Registering Independent Student

This account type will also be able to create an independent student with no EWU ID and/or EWU email. The system will allow only the administrator to do this.

- This student type is intended for students transferring to EWU that do not yet have their EWU credentials but have completed the required prerequisites to take the APE.

Once this student account is created, the account will be able to have the same functionality as a regular student account. The only difference is that they will not sign in to the site until the administrator has added their EWU ID and email to their associated account. The account will instead have the student's personal email until it is changed by the administrator.

Once this student is created by the administrator, the administrator can register them for an APE.

3.5.5 Finalizing Grades

This account type will be able to pass or fail a student regardless of their score or any scores given by the graders. A student that lands in a certain range (set by the administrator during ape creation) will be put into an "Under Review State". Once the final grade decision has been made by the administrator, they can pass/fail a student regardless of any grade they are given. *Move to 3.5.1 (Edit accounts)*

X When manually passing or failing a student, the administrator will be required to add a comment in the provided comment box specifying why the final grade was given. This comment can be hidden or visible to the student depending on the administrator.

✓ 3.5.6 Reports

This account type will have the ability to create, view, and download reports from the system. The system will be able to generate reports with the information specified by the administrator.

There will be default report options that the administrator can select like the following:

- ✓ • Pass/Fail report
 - For a given APE with students' EWU IDs and EWU emails
- ✓ • Students Registered
 - A list of students who are registered for a given APE with their names, EWU ID numbers, and email

The administrator will be able to add report types and specify what information they want the report to include (names, IDs, emails, addresses, phone numbers, scores, pass/fail, attempts, assigned seats).

4 Grades

Settings

X Once grades are submitted by the graders, the system will calculate whether the margin of difference between the different grades given is within a range specified by the ~~APE creator~~. Depending on the results, the system will pass/fail the student, or flag the student for administrator review. Before the grades are published, the administrator will need to do a final review of the grades and change the state of the APE to "Archived".