* The very first person to log into the application (e.g., the list of users is empty) is assumed to be an Admin.  The system requires the first user to specify a username and password.  An account is created for that username and password, and that user is assigned the role of Admin.  At that point, the user is directed back to the original login.
* When creating a password, the password must be entered two times, and they must match.
* Before a user can use the system, when logging in again they are first taken to a "Finish setting up your account" page.  The "Finish setting up your account" page requires the user to specify an email address and their name.  There are four fields associated with a name: first, middle, last, and optionally preferred first name.  (If the user specifies an optional preferred first name, this name will be used when displaying messages to that user from the application.)
* The system must support multiple roles.  The following are required minimum roles: Admin, Student, Instructor.
* A user may have more than one role.  If a user has more than one role, after signing in, the user must specify which role is appropriate for this session.  If the user has just one role, the user is taken to a page to the home page for that role.  For Phase 1, the Student and Instructor role home pages have only one option, and that is to log out.
* An Admin can perform the following:
  + Invite an individual to join the application.  A one-time code is provided that allows a new user to create an account.  The standard login page allows the user to provide a username to start the login process or a different input field in which they can enter the invitation code.  The Admin must specify which role(s) this invited user is being given when producing the invitation.
  + Reset a user account.  A one-time password and an expiration date and time is set.  The next time the user tries to log in, they must use the one-time password, and the only action possible is to set up a new password.  Before being given access to set up a new password, the system checks to see if the date and time are proper given the deadline.  Once the new password has been set, the user is directed back to the login page. Logging in with the one-time password resets the flag so it can't be used again.
  + Delete a user account.  An "Are you sure?" message must be answered with "Yes" to do the delete.
  + List the user accounts. A list of all the user accounts with the user name, the individual's name, and a set of codes for the roles is displayed.
  + Add or remove a role from a user.
  + Log out.
* All other users can perform the following:
  + At the login page, fill in the one-time invitation code to be allowed to establish an account.  The only action allowed when establishing an account is to specify a username
  + and password.  An account is created for that username and password with the role(s) associated with the one-time invitation.  At that point, the user is directed back to the original login.
  + As described above, they must finish setting up their account.  Once the account is set up, they then have access to the home page to which they have been assigned or to the page where they can select which role is appropriate for this session and then the home page for that role.
  + For Phase 1, after logging in, finishing the account setup, and selecting a role for this session (if they have multiple roles) they are taken to a home page for that role where the only option is to log out.

**Phase One Deliverables**

Requirements and User Stories:

As a *role* I want to *action* so that *benefit*

As an *administrator* I want to *establish an account to manage the system database* so that *someone will manage the database.*

As a *password creator* I want to *enter a password twice* so that *I can be assured the passwords match.*

As a *new user* I want to *properly setup my account to include all of my information* so that *my information will be stored correctly.*

As a *user* I want to *be assigned the proper role* so that *I can access the information that most pertains to my questions.*

As a *user* I want to *be able to switch roles* so that *I can access the correct information for my session.*

As an *admin* I want to *be able to invite people to join my application* so that *they can use my help system*

As an *admin* I want to *choose the role for people when I send an invitation out* so that *they can assume the proper role.*

As an *admin* I want to *be able to reset user accounts* so that *I can fix issues with their accounts.*

As an *admin* I want to *be able to delete user accounts* so that *the database can function efficiently*

As an *admin* I want to *be able to see all of the user accounts* so that *I can see who is using the application*

As an *admin* I want to *change the roles of people using the help system* so that *I can keep users organized*

As *a new user* I want to *fill in my invitation code* so that *I can start using the system*

As an *admin* I want to *be able to invite people to join my application* so that *they can use my help system*

As *a user* I want to *view my homepage* so that *I can use the help system*

*We envision a help system that makes it easier for ASU to provide current, accurate, and relevant information to CSE 360 students.  It must be done in a way that does not waste the student's time by providing information that is too complex or too simplified for the situation the student is facing.  For the system to support the unique needs of each student well, personal information must be used.  For example, the student may indicate that they are excellent in programming in Java, are familiar but not skilled with Eclipse, and are a true beginner with JavaFX and GitHub.  Some students may feel uncomfortable if anyone else sees this personal information.  (To be honest, such personal information should never be made available to others without expressed permission being given.)  When the student can't quickly find the information they need, an easy-to-use method must be provided to let the instructional team know the issue and what was viewed so they can provide new information that is more likely to be effective.  Similarly, the system should allow the student to specify "more like this but with more detail" or "more like this with less detail".  One critical source of data for the help system must come from Ed Discussion, so the questions and potential answers that are important****this semester****can be supported by the help system.*

*The instructional team must be able to quickly replace materials from an old version of the class with a new version of the class.  When a new tool becomes available (e.g., the web page to register for GitHub changes), it is easy for the team to find and update (or remove) the existing help entries as well as provide new ones.  A survey of the Ed Discussions data must be analyzed to identify topics or issues that the help system should be able to address.  Are there reasons why students didn't use the help system?  Do the key terms set for the help item need to be enhanced to make it easier for the student to find the needed help?  (If the student uses words that are not in the list of key terms, mechanical search methods will not work.  Maybe newer AI search methods can be used.)  Each new help item needs tags so that searching can be effective, as well as information about the target user (e.g., beginner, expert), and so forth.*

*An administrator needs to be able to back up and restore the help data and the users, and add, edit, and remove individual articles and individuals.  Just because this individual can add, remove, back up, and restore users does not mean they should have access to personal/private information.  Additional actions include resetting a user's access with a one-time password so a user can get back into the system and set up a new password without the admin knowing the old, one-time, or new passwords for a user.*

As a *role* I want to *action* so that *benefit*

As a *student* I want to *get help with CSE 360* so that *I can succeed in Computer Science*

As a *student* I want to *receive the information* so that *I can succeed in Computer Science*