

**Software Maintenance, ESOF 326, Spring 2020**  
**Proof of Concept Prototype for Web Service Middleware Handling Permissions**  
**Jan. 22**

Permission situations:

User Super: Permission to do all. A super user.

User Admin: Permission to create courses and outcomes. An administrative users.

User SE: Permission to associate courses and outcomes with the SE program.

User EE: permission to associate courses and outcomes with the EE program.

User None: No permissions

Determine the common functionality that can be placed into our web service to handle permissions. Feel free to assume that each user has logged into AbOut, so has been validated by CAS, and the web services has given the user a security token. Feel free to ignore semester intervals.

Tasks to consider:

1. User Super successfully utilizes the web service to create a course.
2. User Super successfully utilizes the web service to create an outcome.
3. User Admin successfully utilizes the web service to create a course.
4. User Admin successfully utilizes the web service to create an outcome.
5. User None unsuccessfully attempts to utilize the web service to create a course.
6. User SE successfully utilizes the web service to associate an existing course to the SE program.
7. User SE successfully utilizes the web service to associate an existing outcome to the SE program.
8. User EE unsuccessfully attempts to utilize the web service to associate an existing course to the SE program.
9. User None unsuccessfully attempts to utilize the web service to associate an existing course to the SE program.
10. User EE unsuccessfully attempts to utilize the web service to associate an existing outcome to the SE program.
11. User SE successfully utilizes the web service to associate an existing courses associated with SE, and an existing outcomes associated with SE, so that the course will measure the outcome.
12. User EE unsuccessfully attempts to utilize the web service to associate an existing courses associated with SE, and an existing outcomes associated with SE, so that the course will measure the outcome.
13. User None unsuccessfully attempts to utilize the web service to associate an existing courses associated with SE, and an existing outcomes associated with SE, so that the course will measure the outcome.
14. User Super successfully utilizes the web service to give User EE administrative permissions in the SE program.

1. What information will the security token contain? When information comes from a table, give the exact field name.
  
2. Give pseudo code for checking permissions in the above cases (the goal is to have a few functions which can be used over and over to handle permissions).