

**CSE543 Information Assurance and Security
Assignment
Fall 2014**

Issued October 9, 2014

Your assignment through the Blackboard lab assignment link is due October 30, 2014

This assignment is for each individual student (not group effort). The theme of this assignment is **Access Control of Web Pages**.

Task 1:

Activate your ASU personal website for www.public.asu.edu. You can find more information on how to activate your ASU AFS on

<https://selfsub.asu.edu/apps/WebObjects/ASURITEActivation>

(Hint: Input ASU ID -> ASURITE Account Management -> AFS File service (network file space) & Personal Webpage Hosting. Your personal webpage URL will be accessible after several hours.)

Task 2:

After activation, create a main page on your ASU website, which has links to 5 different course pages, as shown in the following,

CSE001 - http://www.public.asu.edu/~ASURite_ID/cse001.htm

CSE002 - http://www.public.asu.edu/~ASURite_ID/cse002.htm

CSE003 - http://www.public.asu.edu/~ASURite_ID/cse003.htm

CSE004 - http://www.public.asu.edu/~ASURite_ID/cse004.htm

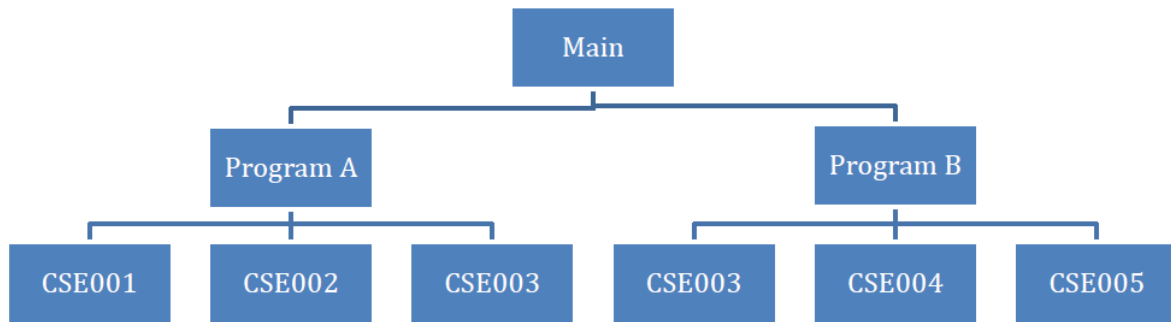
CSE005 - http://www.public.asu.edu/~ASURite_ID/cse005.htm

Note that the ASURite_ID in these links should be replaced by your ASU ID. For example, if your ASURite ID is tom8, the first link should be

<http://www.public.asu.edu/~tom8/cse001.htm> You can put any content in each page. You must comply with ASU policy on computer and network usage

<http://www.asu.edu/aad/manuals/acd/acd125.html>

Task 3:



If and only if a student takes the course **OR** is in the program that includes the course, then the student is allowed to access the course webpage. Note that anonymous users cannot access any course.

Create “.htaccess” and “.htpasswd” files for each course page to enforce the following access policies.

Policy	Description
1	Alice takes courses CSE001 and CSE002
2	Bob takes all courses in Program A
3	Chris takes course CSE003 and all courses in Program B
4	Alice doesn't take any course in Program B
5	Eve takes all courses except CSE003
6	Dave takes course CSE005
7	Dave doesn't take any course from Program A
8	The manager John can access all courses

Task 4:

Given a set of policies, a policy of the set is redundant if this policy can be deduced from other policies in the set. Find all redundant policies listed in the above policy table.

Task 5:

The following is an access control matrix. Fill the remaining access control matrix for all the users.

	CSE001	CSE002	CSE003	CSE004	CSE005
John			YES		
Alice					
Bob					
Chris					
Dave					
Eve					

Task 6:

Explain how the ".htpasswd" file content is generated. Is it possible to derive the original passwords from an ".htpasswd" file? If yes, explain each of techniques that allow you to do so, and also provide ways to prevent such attack of each technique.

Task 7:

List all security flaws with your website. If there are security flaws with your website, what should be done to make your website more secure?

Deliverables

A report in PDF format including the following four items to be submitted to Blackboard no later than **October 30, 2014**.

- a. The link to the main page of your website.
- b. The list of users with their passwords for accessing all the web pages specified in Task 2.
- c. Your answers for Tasks 3 to 7.
- d. The contents of ".htaccess" and ".htpasswd" files, which must not be attached separately to the report.