

SDEV 400 – Homework 2
AWS EC2 and S3 Demonstration

Overview:

In this homework, you will demonstrate the successful creation of basic, free-tier EC2 and S3 buckets using Amazon Web Services.

Assignment: Total 100 points

Prior to attempting this assignment, be sure you have completed the activities in week 3 (Using S3) and week 4 (Using EC2). These activities are foundational and required to be successful in completing this homework.

Also, please get started early as this assignment will take you longer than you think.

1. (10 points) Using your non-root, admin AWS account, create a S3 bucket named SDEV400HW2YourName that includes 4 folders for labeled:

- Students
- Faculty
- Admin
- Presentations

Note: You should use the AWS Management Console to accomplish this task. Document and fully describe the steps you used to complete these steps. Provide clearly labeled screen captures supporting your efforts.

2. (10 points) Write a batch file, that will use the AWS CLI to copy 4 files (or your choice) to each of the 4 folders you created for your S3 bucket. Describe what each line of the batch file is doing. Run the batch file and demonstrate the copy process worked through commands found within AWS CLI.

3. (30 points) Using the table below and a reasonable design process, create the appropriate users, groups and policies to grant permissions for list, read and write access for the S3 bucket folders. Demonstrate the policies were successfully applied by logging in as the users and attempting to access the different S3 folders. (Hint: You should assign the policies to groups and then add users to the group)

User	Folder			
	Students	Faculty	Admin	Presentations
Johnny	List = Y Read = Y Write = Y	List = N Read = N Write = N	List = N Read = N Write = N	List = Y Read = Y Write = N
Jenny	List = Y Read = Y Write = Y	List = N Read = N Write = N	List = N Read = N Write = N	List = Y Read = Y Write = N
Instructor	List = N Read = N Write = N	List = Y Read = Y Write = Y	List = Y Read = Y Write = Y	List = Y Read = Y Write = N

Note: You may need to create new users and groups to assist in this. Use the Instructor account that you assigned to your instructor in Lab 1. Take your time with the design of this. Use the Groups to assign the custom policies.

Clearly define the policies and the steps you use to perform and test the results. Use screen captures and describe how each element was policy was tested.

4. (30 points) Using the AWS CLI, launch 2 Free Tier Windows Machines and 2 Free Tier Ubuntu machines. Launch the t2.micro instances. Note: You should create the security groups and Key pairs first in the AWS management console to provide SSH for the Ubuntu machines and RDP access.

Demonstrate the successful login to all EC2 instances and document you changed the Administrator password for the Windows machines. Demonstrate a non-admin user can successfully RDP connect to one of the Windows machines and successfully install the Java SDK on the machine. (Hint: grant the user power user group role on the Windows machine.)

Finally, after all screen captures, and tests are complete, use the AWS CLI to find all instance IDs and terminate each instance running. Verify, through the AWS management console, the time and date of the termination for each EC2 instance. Document the process through screen captures and descriptions throughout.

5. (20 points) Submit your paper in Word or PDF format no later than the due date.

This includes the following Submission details:

1. Page numbers should be included for all pages (except the title page) and be at the top right of the page. (1 point)
2. Paragraphs should be double-spaced with 1" margins on all sides. (1 point)
3. 12 pt. Times New Roman font or similar should be used. (1 point)
4. Figures should have titles and numbers. (2 points)
5. The document should contain minimal spelling and grammar errors. (10 points)
6. References are included and provided in APA format. (5 points)