**Challenge Lab: Amazon S3**

**Lab overview**

In this challenge lab, you create an Amazon Simple Storage Service (Amazon S3) bucket and perform some routine tasks, such as uploading objects and configuring permissions to make those objects publicly accessible through a browser.

**Objectives**

By the end of this challenge, you should be able to do the following:

* Create an S3 bucket.
* Upload an object into this bucket.
* Access the object by using a web browser.
* List the contents of the S3 bucket by using the AWS Command Line Interface (AWS CLI).

**Duration**

This lab requires approximately **45 minutes** to complete.

**Accessing the AWS Management Console**

1. At the top of these instructions, choose Start Lab to launch your lab.

A **Start Lab** panel opens displaying the lab status.

1. Wait until the message "Lab status: ready" appears, and then choose **X** to close the **Start Lab** panel.
2. At the top of these instructions, choose AWS to open the AWS Management Console on a new browser tab. The system automatically signs you in.

**Tip** If a new browser tab does not open, a banner or icon at the top of your browser will indicate that your browser is preventing the site from opening pop-up windows. Choose the banner or icon, and choose **Allow pop-ups**.

1. Arrange the AWS Management Console so that it appears alongside these instructions. Ideally, you should be able to see both browser tabs at the same time to follow the lab steps.
2. At the top of these instructions, choose Details, and then choose Show.
3. Copy the values of the **SecretKey**, **PublicIP**, and **AccessKey**, and paste them into a text editor. You use this information while working through this challenge.

**Note**: The **PublicIP** value is the public IPv4 address of the Linux instance that has been provisioned for you for this challenge.

**Task 1: Connecting to the CLI Host instance**

To start the challenge, you connect to the CLI Host instance that is already provisioned for you.

1. On the **AWS Management Console**, in the **Search** bar, enter and choose EC2 to open the **EC2 Management Console**.
2. In the navigation pane, choose **Instances**.
3. From the list of instances, select the **CLI Host** instance.
4. Choose **Connect**.
5. On the **EC2 Instance Connect** tab, choose **Connect**.

**Note:** If you prefer to use an SSH client to connect to the EC2 instance, see the guidance to [Connect to Your Linux Instance](https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/AccessingInstances.html).

Now that you are connected to the CLI Host instance, you can configure and use the AWS CLI to call AWS services.

**Task 2: Configuring the AWS CLI**

1. To set up the AWS CLI profile with credentials, run the following command in the EC2 Instance Connect terminal:



aws configure

1. At the prompts, copy the following values that you pasted into your text editor, and paste them into the terminal window as directed.
   * **AWS Access Key ID:** Enter the value for **AccessKey**.
   * **AWS Secret Access Key:** Enter the value for **SecretKey**.
   * **Default region name:** Enter us-west-2.
   * **Default output format:** Enter json.

Now you are ready to run AWS CLI commands to interact with AWS services.

**Task 3: Finishing the challenge**

To finish the challenge, do the following:

* Create an S3 bucket.
* Upload an object into this bucket.
* Try to access the object by using a web browser.
* Make the object (not the bucket) publicly accessible.
* Access the object by using a web browser.
* List the contents of the S3 bucket by using the AWS CLI.

**Hint:** You may refer to the relevant sections of the course which teaches S3. Additional documentation links are provided in the references section.

**Note:** As you complete these challenges, capture screenshots to submit to your instructor.

**Conclusion**

Congratulations! You now have successfully done the following:

* Created an S3 bucket
* Uploaded an object into this bucket
* Accessed the object by using a web browser
* Listed the contents of the S3 bucket by using AWS CLI

**Lab complete**

Congratulations! You have completed the lab.

1. At the top of this page, choose End Lab and then choose **Yes** to confirm that you want to end the lab.

A panel appears indicating that "You may close this message box now. Lab resources are terminating."

1. To close the **End Lab** panel, choose the **X** in the upper-right corner.

**Additional resources**

* [S3 CLI Command Reference](https://docs.aws.amazon.com/cli/latest/reference/s3/)
* [Getting Started with Amazon S3](https://aws.amazon.com/s3/getting-started/)
* [How Can I Grant Public Read Access to Some Objects in My Amazon S3 Bucket?](https://repost.aws/knowledge-center/read-access-objects-s3-bucket)
* [Connect to Your Linux Instance](https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/AccessingInstances.html)

For more information about AWS Training and Certification, see [AWS Training and Certification](http://aws.amazon.com/training/).

*Your feedback is welcome and appreciated.*

If you would like to share any suggestions or corrections, provide the details in the [AWS Training and Certification Contact Form](https://support.aws.amazon.com/#/contacts/aws-training).

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