Cloud environment

Open Ready

Bridge

Open Loading

Credentials

Account ID [redacted]

Username [redacted]

Password [redacted]

Region

US West 2

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HANDS-ON LAB

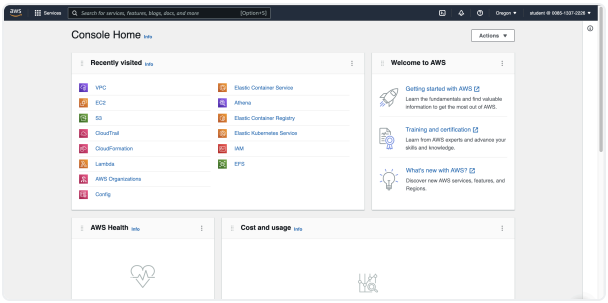
Introduction to Amazon EFS...

1h 50m

1 Logging In to the Amaz...

Introduction

This lab experience involves Amazon Web Services (AWS), and you will use the AWS Management Console to complete the instructions in the following lab steps.



Instructions

1. Click the following button to access the lab's cloud environment:

Open Ready

2. Enter the following credentials created just for your lab session, and click **Sign in**:

- **Account ID or alias**: [redacted]
- **IAM user name**: [redacted]
- **Password**: [redacted]

Skip to content

Press Q to open this menu

Cloud environment

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Bridge

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Credentials

Account ID [redacted]

Username [redacted]

Password [redacted]

Region

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2 Code IDE Access

Introduction

In this lab step, you'll launch the Code IDE which will be used to review and edit all lab-provided source code.

Instructions

Pause here until the lab completes the startup sequence successfully:

Open Ready

This lab takes approximately **4-5** minutes for the startup sequence to complete.

1. Launch a new browser tab and then navigate to the following Code IDE URL:

Copy code

```
http://[redacted]
```

2. Enter the following password at the prompt:

Copy code

[redacted]

Welcome to ca-code-labs

Skip to content

Press Q to open this menu

1h 48m

Cloud environment

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Bridge

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Credentials

Account ID

[redacted]

Username

[redacted]

Password

[redacted]

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3 Using Terraform to ... 0/1

Introduction

In this lab step, you'll learn how to provision a new EFS file system using Terraform modules that simulate the configuration and behaviour of the internal[redacted]Terraform modules. You'll then confirm the creation of the new EFS file system by examining it and it's configured properties from within the AWS EFS console.

All Terraform projects created at[redacted] must use the following template code to initialize the project correctly. For the purpose of this lab environment this is **not** required.

Copy code

```
terraform {
  required_version = ">= 0.14"
  required_providers {
    atlas = {
      source = "jpmchase.net/te
    }
  }
}

provider "aws" {
  access_key = var.aws_access_k
```

Skip to content

Press Q to open this menu

1h 48m

Cloud environment

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Credentials

Account ID

[redacted]

Username

[redacted]

Password

[redacted]

Region

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4 EC2 Access Using Sessi...

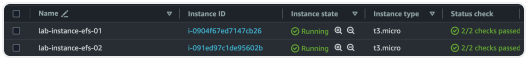
Introduction

In this lab step, you'll learn how to use Session Manager to connect to a pair of EC2 lab instances created automatically for you during lab start up time. In the next lab step, you'll mount the EFS file system to a directory on each of these instances.

Instructions

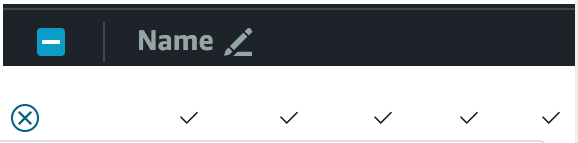
Perform the following instructions within the AWS console:

1. Within the AWS console, navigate to the EC2 console and confirm the presence of the **lab-instance-efs-01** and **lab-instance-efs-02** instances:



   Note: A third instance named **cloudacademylabs** exists, which is used to support the lab itself. You are **not** expected to do anthing with this instance for the remainder of the lab.

2. Right-click on **lab-instance-efs-01** and select the **Connect** option:



1h 47m

Cloud environment

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Ready

Bridge

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Credentials

Account ID

[redacted]

Username

[redacted]

Password

[redacted]

Region

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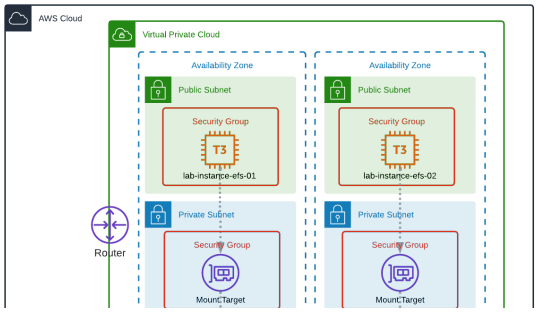
5 Mount EFS file sys... 0/2

Introduction

In this lab step, you'll learn how to setup and configure a shared EFS file system mounted against multiple EC2 instances. You'll need to install the amazon-efs-utils package on each instance, before mounting the EFS file system using TLS connections to the **/efs-tfe** directory.

Two EC2 instances (**lab-instance-efs-01** and **lab-instance-efs-02**) were created for you during lab start up time. You'll mount the EFS file system into both of these instances. To test the functionality of the EFS shared file system, you'll save a test file within the mounted directory on the first instance (**lab-instance-efs-01**), and then test for the presence of the same file within the mounted directory on the second instance (**lab-instance-efs-02**). Doing this will confirm that the EFS file system is operational and shared across multiple instances.



1h 47m

Skip to content

Press Q to open this menu

Cloud environment

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Account ID

[redacted]

Username

[redacted]

Password

[redacted]

Region

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HANDS-ON LAB

Introduction to Amazon EFS...

1h 46m

1. Logging In to the Amaz...
2. Code IDE Access
3. Using Terraform to ... 0/1
4. EC2 Access Using Sessi...
5. Mount EFS file syst... 0/2
6. **Working with Ama...** 0/2

Introduction

In this lab step, you'll learn how to utilize and configure EFS Access Points. At its core, EFS Access Points act as gateways, providing tailored entry points to specific directories within an EFS file system. This targeted approach enables fine-grained access control and simplifies the management of permissions.

Instructions

Perform the following instructions within the **lab-instance-efs-01** bash shell you opened in an earlier lab step:

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Password

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7 Configuring the Cu... 0/1

Introduction

In this lab section, you'll learn how to update the **customer-managed** security group, managed within the EFS module. When required, you can modify the **customer-managed** security group by adding/removing ingress and egress rules to match specific use cases. The **customer-managed** security group is intended to be attached to other AWS resources to facilitate EFS mounting capabilities when needed.

Instructions

Perform the following instructions within the provided Code IDE:

1. Append the following **aws_security_group_rule** resource into the **main.tf** file:

Copy code

```
resource "aws_security_gro
  type              = "ing
  from_port         = 2049
  to_port           = 2049
  protocol          = "tcp
  security_group_id = modu
  self              = true
  description       = "All
```

1h 45m

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Cloud environment

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Credentials

Account ID

[redacted]

Username

[redacted]

Password

[redacted]

Region

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8 Configuring Data P... 0/1

Introduction

In this lab section, you'll learn how to configure AWS Backup for EFS. AWS Backup is a fully managed backup service provided by AWS, which[redacted]has deployed in order to centralize and automate the backup of data across the various AWS services at[redacted] While setting the tag is a mandatory for file system provisioning, you are not required to have backups, especially if you already have a strong resiliency plan. AWS Backup provides a layer of protection against accidental deletion, corruption, or loss.

The following EFS module property controls backups.

- **core_backups_retention**: A mandatory tag. The value you enter will determine how many days the backup will be saved before being deleted. The valid values are: 35DAYS, 70DAYS, 100DAYS, 400DAYS, and NOBACKUP.

Instructions

Perform the following instructions within the provided Code IDE:

1. In a previous section, you

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1h 44m

Cloud environment

Open

Ready

Bridge

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Loading

Credentials

Account ID

[redacted]

Username

[redacted]

Password

[redacted]

Region

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9 Using Terraform to...

0/3

Introduction

In this lab step, you'll learn how to **unmount** an EFS file system. You'll then be shown how to use Terraform to **delete** the EFS file system and related resources.

Note: At[redacted] EFS file system resources must be deleted using Terraform. Deleting an EFS file system is **not** permitted using AWS CLI or the AWS Console.

Instructions

Perform the following instructions within the Session Manager **lab-instance-efs-01** shell you opened earlier in a previous lab step:

1. Unmount the EFS file system from the **/efs-tfe** directory. In the terminal, execute the following command:

Copy code

```
umount $MOUNT_DIR
```

```
[root@lab-instance-efs-01 bin]# umount $MOUNT_DIR
[root@lab-instance-efs-01 bin]#
```

2. Confirm that the EFS file system has been successfully **unmounted**. In the terminal, execute the following

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