



Amazon Web Services Data Engineering Immersion Day

Database Migration Services Student Setup Instructions
March 2020

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Introduction

This guide helps students set up the pre-environment for the AWS Database Migration Service (AWS DMS) lab.

AWS DMS required source and destination as shown below:



Your instructor will provide you source database details during main lab to configure source endpoint. If you ran instructor lab to setup your own instance of Postgres database then use instance endpoint from instructor lab.

In this lab, you will complete the following pre-requisite using AWS CloudFormation template deployment:

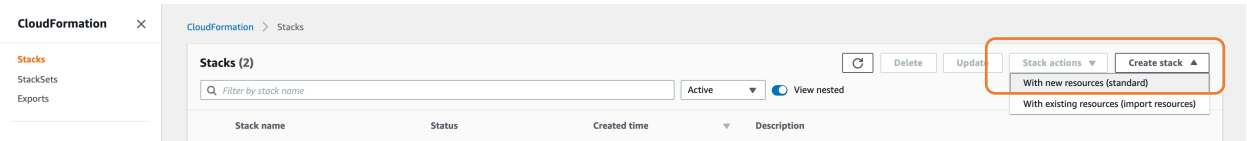
1. Create required VPC setup for AWS DMS instance.
2. Create Amazon S3 bucket for destination end point configuration.
3. Create Amazon S3 buckets for Amazon Athena query result storage.
4. Create required Amazon S3 bucket policy to put data by AWS DMS service.
5. Create AWS Glue Service Role to use in later hands-on workshop.
6. Create Amazon Athena workgroup users to use in Athena workshop.
7. Create Amazon Lake formation users to use in Lake formation workshop.

Labs are also available in GitHub - <https://github.com/aws-samples/data-engineering-for-aws-immersion-day>

Create the Student Environment

*****Make sure you select the us-east-1 (Virginia) region*****

1. Sign in to the AWS console where you will host the student environment.
2. Navigate to the AWS CloudFormation page.
3. On top right corner, click on **"Create Stack"** and select **"With new resources"**.



4. In **"Create Stack"** Page, select **"Template is ready"** and for template source, select **"Upload a template file"**.
5. For this lab, you will be using **DMSLab_Student_CFN.json** template.
6. Click **Next**.

A screenshot of the 'Create stack' page in the AWS CloudFormation console. The page is divided into four steps: Step 1: Specify template, Step 2: Specify stack details, Step 3: Configure stack options, and Step 4: Review. Step 1 is currently active. Under 'Specify template', there are three radio buttons: 'Template is ready' (selected), 'Use a sample template', and 'Create template in Designer'. Below this, under 'Specify template', there is a text box for 'Template source' with 'Upload a template file' selected. Below that, there is a 'Choose file' button and a text box containing 'n_DMSlab_student_CFN.json'. At the bottom, there is a 'View in Designer' button and a 'Next' button.

7. In Specify stack details, provide a name for **"Stack Name"** as **"dmslab-student"**.
8. Click on **Next**.

A screenshot of the 'Specify stack details' page in the AWS CloudFormation console. The page is divided into four steps: Step 1: Specify template, Step 2: Specify stack details, Step 3: Configure stack options, and Step 4: Review. Step 2 is currently active. Under 'Specify stack details', there is a 'Stack name' text box with 'dmslab-student' entered. Below this, there is a 'Parameters' section with a message: 'No parameters. There are no parameters defined in your template.' At the bottom, there are 'Cancel', 'Previous', and 'Next' buttons.

Database Migration Services Instructor Environment for the Lab

9. In review page, review all the details, scroll down and check the box to acknowledge the policy and then click on **Create Stack**.

► Quick-create link

Capabilities

The following resource(s) require capabilities: [AWS::IAM::Role]

This template contains Identity and Access Management (IAM) resources that might provide entities access to make changes to your AWS account. Check that you want to create each of these resources and that they have the minimum required permissions. [Learn more](#)

☒ I acknowledge that AWS CloudFormation might create IAM resources.

Cancel Previous Create change set **Create stack**

10. Launch the stack. It may take 5 minutes for the stack to launch. Go to the **Outputs** tab and note down all resource information in a notepad as you are going to use them in future labs:

dmslab-student

Delete

Update

Stack actions ▼

Create stack ▼

Stack info

Events

Resources

Outputs

Parameters

Template

Change sets

Outputs (9)

🔄

🔍 Search outputs

⚙️

Key	Value	Description	Export name
BucketName	dmslab-student-dmslabs3bucket-z3fwyjc9thf9	S3 Bucket that was created	-
BusinessAnalystUser	dmslab-student-BusinessAnalystUser-1Y1TPE2JABFR3	business_analyst_user for Workgroup A	-
BusinessAnalystUserPolicy	BusinessAnalystUserPolicy	User policy for Business Analyst User	-
DMSLabRoleS3	arn:aws:iam::789211807855:role/dmslab-student-DMSLabRoleS3-PE9MLCQRHN79	The DMS service role	-
GlueLabRole	dmslab-student-GlueLabRole-3LIXB40URIKG	The Glue service role	-
S3BucketWorkgroupA	dmslab-student-s3bucketworkgroupa-1rotmy2i20eg0	S3 Bucket for storing workgroup A results	-
S3BucketWorkgroupB	dmslab-student-s3bucketworkgroupb-1rkcac1sdvs7l	S3 bucket for storing workgroup B results	-
WorkgroupManagerUser	dmslab-student-WorkgroupManagerUser-1PAYVTQ44DTN1	workgroup_manager_user for access to Workgroup A and Workgroup B	-
WorkgroupManagerUserPolicy	WorkgroupManagerUserPolicy	User policy for Workgroup manager user	-

Congratulations!!! You have successfully completed student lab and setup all pre-requisite required to run rest of the workshop.

Please proceed to next lab Batch Data Ingestion with DMS.