

Database Migration Service :

AWS service which helps us to move our on-premises database to AWS cloud quickly and securely.

- On-Premises to AWS
- AWS to AWS
- AWS to other cloud services

The screenshot shows the AWS DMS console interface. The left sidebar has a red box around the 'Database migration tasks' option under 'Dashboard'. The main content area features a large 'AWS Database Migration Service' logo and the tagline 'Migrate your databases to AWS with minimal downtime'. A 'Getting started' box contains a 'Create replication instance' button. Below it, a 'How it works' section includes a diagram showing data flowing from a local database to the AWS cloud. A 'AWS Schema Conversion Tool' box provides links to its documentation and forums. The bottom of the page includes standard AWS navigation links like Feedback, Unified Settings, and cookie preferences.

IAM Role - DMSRDSS3Role

The screenshot shows the IAM 'Permissions policies' page. It lists two managed policies: 'AmazonRDSFullAccess' and 'AmazonS3FullAccess'. Both are AWS managed policies. The 'AmazonRDSFullAccess' policy is currently selected, indicated by a cursor icon over its name. The page includes a search bar, a toolbar with 'Simulate', 'Remove', and 'Add permissions' buttons, and a table with columns for Policy name, Type, and Description.

Policy name	Type	Description
AmazonRDSFullAccess	AWS managed	Provides full access to Amazon RDS
AmazonS3FullAccess	AWS managed	Provides full access to all buckets via

Steps to Migrate database from RDS- MariaDB to S3 :

Step1 : Create a Replication Instance

➤ Now go to DMS service and create a Replication Instance

AWS DMS > Replication instances > Create replication instance

Replication instance configuration

Name
The name must be unique among all of your replication instances in the current AWS region.

Descriptive Amazon Resource Name (ARN) - optional
A friendly name to override the default DMS ARN. You cannot modify it after creation.

Description

The description must only have unicode letters, digits, whitespace, or one of these symbols: _/+=@. 1000 maximum character.

Instance class [Info](#)
Choose an appropriate instance class for your replication needs. Each instance class provides differing levels of compute, network and memory capacity. [DMS pricing](#)

2 vCPUs 1 GiB Memory

Include previous-generation instance classes

Engine version

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Engine version
Choose an AWS DMS version to run on your replication instance. [DMS versions](#)

Include Beta DMS versions

Upgrades to versions 3.4.7 and higher
Upgrades to AWS DMS versions 3.4.7 and higher require that you configure AWS DMS to use VPC endpoints or use public routes. This requirement applies to source and target endpoints for S3, Kinesis, Secrets Manager, DynamoDB, Amazon Redshift, and OpenSearch Service. [Learn more](#)

Allocated storage (GiB) [Info](#)
Choose the amount of storage space you want for your replication instance. AWS DMS uses this storage for log files and cached transactions while replication tasks are in progress.

VPC
Choose an Amazon Virtual Private Cloud (VPC) where your replication instance should run.

Multi AZ
The Multi-AZ option deploys a primary replication instance in one Availability Zone (AZ) and a standby in another AZ. The Single-AZ option deploys a single replication instance in one AZ. Billing is based on DMS pricing.

Publicly accessible
If you choose this option, AWS DMS will assign a public IP address to your replication instance, and you'll be able to connect to databases outside of your Amazon VPC.

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Now click on Create Button

Step2 : Create an RDS MariaDB :

Screenshot of the AWS RDS Management Console showing the 'Databases' page. The left sidebar shows navigation options like Dashboard, Databases, Query Editor, etc. The main area displays a table titled 'Databases' with columns for DB identifier, Role, Engine, Region & AZ, Size, Status, CPU, and Current activity. A message indicates 'No instances found'.

Screenshot of the AWS RDS Management Console showing the 'Create database' wizard. The first step, 'Choose a database creation method', is displayed. It offers two options: 'Standard create' (selected) and 'Easy create'. The 'Standard create' option is described as setting all configuration options, including availability, security, backups, and maintenance. The 'Easy create' option is described as using recommended best-practice configurations where some options can be changed after database creation. Below this, the 'Engine options' section allows selecting the engine type: Amazon Aurora, MySQL, MariaDB, PostgreSQL, Oracle, or Microsoft SQL Server. MariaDB is selected. A dropdown menu for 'Version' shows 'MariaDB 10.6.8'.

IAM Management Console | S3 Management Console | Welcome to Amazon AWS Database | RDS Management Console

us-west-2.console.aws.amazon.com/rds/home?region=us-west-2#launch-dbinstance:gdb=false;s3-import=false

aws Services Search for services, features, blogs, docs, and more [Alt+S]

Templates

Choose a sample template to meet your use case.

Production Use defaults for high availability and fast, consistent performance.

Dev/Test This instance is intended for development use outside of a production environment.

Free tier Use RDS Free Tier to develop new applications, test existing applications, or gain hands-on experience with Amazon RDS. [Info](#)

Settings

DB instance identifier [Info](#)
Type a name for your DB instance. The name must be unique across all DB instances owned by your AWS account in the current AWS Region.

The DB instance identifier is case-insensitive, but is stored as all lowercase (as in "mydbinstance"). Constraints: 1 to 60 alphanumeric characters or hyphens. First character must be a letter. Can't contain two consecutive hyphens. Can't end with a hyphen.

Credentials Settings

Master username [Info](#)
Type a login ID for the master user of your DB instance.

1 to 16 alphanumeric characters. First character must be a letter.

Auto generate a password
Amazon RDS can generate a password for you, or you can specify your own password.

Master password [Info](#)

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Password : Admin1234

IAM Management Console | S3 Management Console | Welcome to Amazon AWS Database | RDS Management Console

us-west-2.console.aws.amazon.com/rds/home?region=us-west-2#launch-dbinstance:gdb=false;s3-import=false

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Instance configuration

The DB instance configuration options below are limited to those supported by the engine that you selected above.

DB instance class [Info](#)
 Standard classes (includes m classes)
 Memory optimized classes (includes r and x classes)
 Burstable classes (includes t classes)

2 vCPUs 1 GiB RAM Network: 2,085 Mbps

Include previous generation classes

Storage

Storage type [Info](#)

Baseline performance determined by volume size

Allocated storage
 GiB
(Minimum: 20 GiB. Maximum: 6,144 GiB) Higher allocated storage can improve IOPS performance.

Storage autoscaling [Info](#)
Provides dynamic scaling support for your database's storage based on your application's needs.

Enable storage autoscaling
Enabling this feature will allow the storage to increase after the specified threshold is exceeded.

Maximum storage threshold [Info](#)
Charges will apply when your database autoscales to the specified threshold

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The screenshot shows the AWS RDS Management Console interface. The top navigation bar includes links for IAM Management Console, S3 Management Console, Welcome to Amazon AWS Database, and RDS Management Console. The main content area is titled "Storage" under the "Services" tab. It displays configuration options for a "General Purpose SSD (gp2)" volume. Key settings include:

- Allocated storage:** Set to 20 GiB.
- Storage autoscaling:** Enabled, with the checkbox checked and a note explaining it allows storage to increase after a threshold is exceeded.
- Maximum storage threshold:** Set to 1000 GiB.

Below the storage section is a "Availability & durability" section containing options for Multi-AZ deployment:

- Create a standby instance:** Recommended for production usage, which creates a standby in a different Availability Zone (AZ) to provide data redundancy, eliminate I/O freezes, and minimize latency spikes during system backups.
- Do not create a standby instance:** Selected.

At the bottom of the page, there is a feedback link, a copyright notice for 2022, and links for Privacy, Terms, and Cookie preferences.

Go with Default VPC and default Security group

The screenshot shows the AWS RDS Management Console interface. The top navigation bar includes links for IAM Management Console, S3 Management Console, Welcome to Amazon AWS Database, and RDS Management Console. The main content area is titled "Connectivity" under the "Services" tab. It displays configuration options for a database instance:

- Compute resource:** Set to "Don't connect to an EC2 compute resource".
- Virtual private cloud (VPC):** Set to "VPC-28868 (vpc-0c9271c5cd148c7cb)".
- DB Subnet group:** Set to "dsg-dbsvr-96f67b59-c948-459c-ac75-f336854d7f97".
- Public access:** Set to "Yes".

At the bottom of the page, there is a feedback link, a copyright notice for 2022, and links for Privacy, Terms, and Cookie preferences.

Public access [Info](#)

Yes
RDS assigns a public IP address to the database. Amazon EC2 instances and other resources outside of the VPC can connect to your database. Resources inside the VPC can also connect to the database. Choose one or more VPC security groups that specify which resources can connect to the database.

No
RDS doesn't assign a public IP address to the database. Only Amazon EC2 instances and other resources inside the VPC can connect to your database. Choose one or more VPC security groups that specify which resources can connect to the database.

VPC security group (firewall) [Info](#)
Choose one or more VPC security groups to allow access to your database. Make sure that the security group rules allow the appropriate incoming traffic.

Choose existing
Choose existing VPC security groups

Create new
Create new VPC security group

Existing VPC security groups
Choose one or more options

default [X](#)

Availability Zone [Info](#)
No preference

Additional configuration

Database authentication

Database authentication options [Info](#)

Password authentication
Authenticates using database passwords.

Password and IAM database authentication
Authenticates using the database password and user credentials through AWS IAM users and roles.

Monitoring

Enable Enhanced monitoring
Enabling Enhanced monitoring metrics are useful when you want to see how different processes or threads use the CPU.

Additional configuration
Database options, encryption turned on, backup turned on, backtrack turned off, maintenance, CloudWatch Logs, delete protection turned off.

Estimated monthly costs

The Amazon RDS Free Tier is available to you for 12 months. Each calendar month, the free tier will allow you to use the Amazon RDS resources listed below for free:

- 750 hrs of Amazon RDS in a Single-AZ db.t2.micro, db.t3.micro or db.t4g.micro Instance.

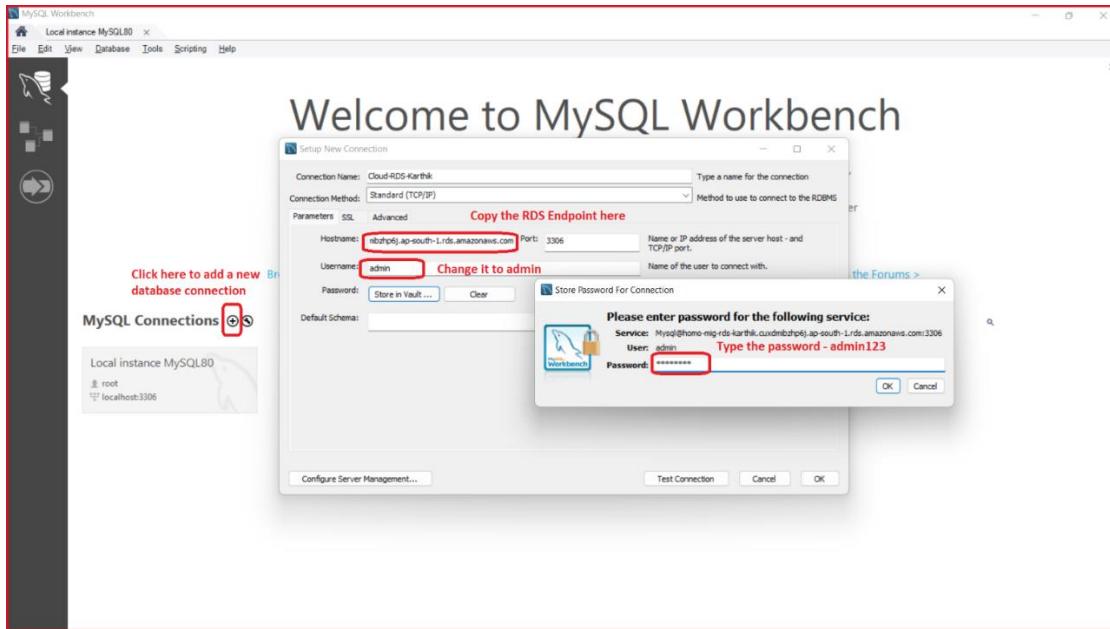
Now click on Create the button

Step3 : Use the MySQL Workbench to connect to the MariaDB RDS Instance running on AWS Cloud

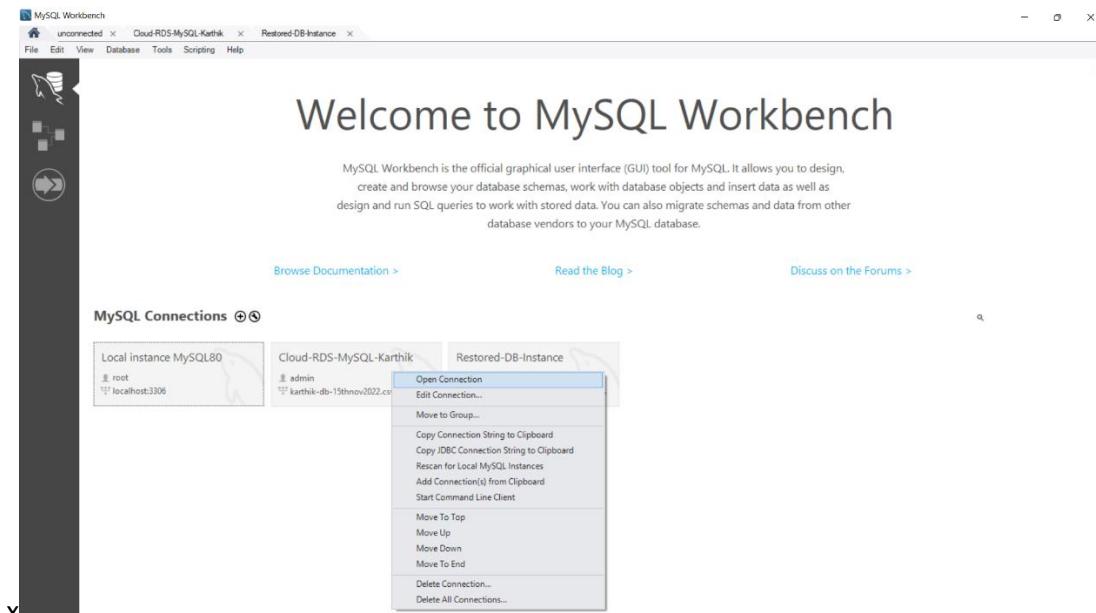
Download and install MySQL Workbench On your local windows machine from ->

<https://dev.mysql.com/downloads/installer/>

- Now let us connect to the AWS Cloud MySQL Instance from MySQL Workbench installed on the local machine.



- Now Test the connection , once it shows successful, click on OK button
- Let us open the connection and start working with MySQL RDS.



Step 4 : Then run the below commands on the Workbench SQL Editor

```
create database test;
```

```
use test;
```

```
create table employee (id int , name varchar(20));
```

```
insert into employee (id, name) values (1231232, 'Rahul');
```

```
insert into employee (id, name) values (1000005, 'Karthik');
```

Step 5 : Now create a S3 bucket in the same region

The screenshot shows the AWS S3 console interface. On the left, there's a sidebar with various options like Buckets, Access Points, Object Lambda Access Points, Multi-Region Access Points, Batch Operations, Access analyzer for S3, Block Public Access settings for this account, Storage Lens (with Dashboards and AWS Organizations settings), Feature spotlight, and AWS Marketplace for S3. The main area shows a bucket named 'dms-karthik-sep22'. The 'Objects' tab is selected, showing a table with one row: 'No objects'. Below the table, it says 'You don't have any objects in this bucket.' At the bottom of the table, there's a 'Upload' button. Above the table, there are several actions: Copy S3 URI, Copy URL, Download, Open, Delete, Actions (with a dropdown menu), Create folder, and Upload. There's also a search bar labeled 'Find objects by prefix'.

Step6 : Go to DMS - create a Source Endpoint

IAM Management Console | dms-karthik-sep22 - S3 bucket | Welcome to Amazon AWS | RDS Management Console | Connect to instance | EC2 | EC2 Instance Connect

ap-south-1.console.aws.amazon.com/dms/v2/home?region=ap-south-1#endpointList

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Mumbai y.karthigayen @ 8464-5353-6904

AWS DMS

DMS Studio New

Dashboard Database migration tasks Replication instances Endpoints Certificates Subnet groups Events Event subscriptions

New feature announcements

DMS > Endpoints

Endpoints (0)

Find endpoint

Name	Type	Status	Engine	Server name	Port	Migration Hub Mapping	ARN	Certificate ARN
Empty endpoint table You don't have any endpoints.								

Create endpoint

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IAM Management Console | dms-karthik-sep22 - S3 bucket | Welcome to Amazon AWS | RDS Management Console | Connect to instance | EC2 | EC2 Instance Connect

ap-south-1.console.aws.amazon.com/dms/v2/home?region=ap-south-1#createNewEndpoint

w Services Search for services, features, blogs, docs, and more [Alt+S]

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AWS DMS

DMS Studio New

Dashboard Database migration tasks Replication instances Endpoints Certificates Subnet groups Events Event subscriptions

New feature announcements

Create endpoint

Endpoint type Info

Source endpoint
A source endpoint allows AWS DMS to read data from a database (on-premises or in the cloud), or from other data source such as Amazon S3.

Target endpoint
A target endpoint allows AWS DMS to write data to a database, or to other data source.

Select RDS DB instance

RDS Instance
Instances available only for current user and region
dmskarthik

Endpoint configuration

Endpoint identifier Info
A label for the endpoint to help you identify it.
dmskarthik

Descriptive Amazon Resource Name (ARN) - *optional*
A friendly name to override the default DMS ARN. You cannot modify it after creation.
Friendly-ARN-name

Source engine

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Endpoint configuration

Endpoint identifier [Info](#)
A label for the endpoint to help you identify it.
dmskarthik

Descriptive Amazon Resource Name (ARN) - *optional*
A friendly name to override the default DMS ARN. You cannot modify it after creation.
Friendly-ARN-name

Source engine
[Learn more](#)
MariaDB

Access to endpoint database
 AWS Secrets Manager
 Provide access information manually

Server name
The name of the data server for the data provider.
dmskarthik.cuxdmibzhp6j.ap-south-1.rds.amazonaws.com

Port
The port the database runs on for this endpoint.
3306

User name [Info](#) Password [Info](#)
admin

Your endpoint will always be created even if the connection fails
After clicking 'Run test', DMS creates the endpoint with the details you provided and attempts to connect to it. If the connection fails, you can edit the endpoint definition and test the connection again. You can also delete the endpoint manually.

Password : Admin1234

Test the connection : once it shows successful ,then click on create Endpoint

Tags

Test endpoint connection (optional)

VPC
vpc-01ae1eb62976a41c6

Replication instance
A replication instance performs the database migration
rp-instance-karthik

Your endpoint will always be created even if the connection fails
After clicking 'Run test', DMS creates the endpoint with the details you provided and attempts to connect to it. If the connection fails, you can edit the endpoint definition and test the connection again. You can also delete the endpoint manually.

Endpoint identifier	Replication instance	Status	Message
dmskarthik	rp-instance-karthik	successful	

Create endpoint

Step7 : Now create a Target Endpoint

The screenshot shows the 'Create endpoint' page in the AWS DMS Management Console. The left sidebar shows 'Endpoints' is selected. The main form has 'Endpoint type' set to 'Target endpoint'. The 'Endpoint configuration' section includes fields for 'Endpoint identifier' (DMSTargetKarthik), 'Descriptive Amazon Resource Name (ARN) - optional' (Friendly-ARN-name), and 'Target engine' (Amazon S3). A note at the bottom says 'Copy the role ARN : arn:aws:iam::846453536904:role/DMSRDSS3Role'.

Copy the role ARN : **arn:aws:iam::846453536904:role/DMSRDSS3Role**

The screenshot shows the 'Endpoint configuration' page in the AWS DMS Management Console. The 'Service access role ARN' field is populated with the copied ARN: 'arn:aws:iam::846453536904:role/DMSRDSS3Role'. Other fields include 'Bucket name' (dms-karthik-sep22) and 'Bucket folder' (empty).

Test the connection : once it shows successful , then click on create Endpoint

The screenshot shows the AWS DMS console with the 'Endpoints' section selected. A modal window is open for testing a connection. The 'Test endpoint connection (optional)' section contains dropdown menus for 'VPC' (set to 'vpc-01ae1eb62976a41c6') and 'Replication instance' (set to 'rp-instance-karthik'). A warning message states: 'Your endpoint will always be created even if the connection fails. After clicking 'Run test', DMS creates the endpoint with the details you provided and attempts to connect to it. If the connection fails, you can edit the endpoint definition and test the connection again. You can also delete the endpoint manually.' Below the modal, a table shows the results of the test: 'dmstargetkarthik' is the endpoint identifier, 'rp-instance-karthik' is the replication instance, and the status is 'successful'. At the bottom right of the modal are 'Cancel' and 'Create endpoint' buttons.

Now source and Target Endpoint are created

The screenshot shows the AWS DMS console with the 'Endpoints' section selected. A table titled 'Endpoints (10)' lists ten entries. Two entries are highlighted with a red box: 'dmskarthik' (Source, Active, MariaDB, dmskarthik.cuxdmibzhp6j.ap-south-1.rds.amazonaws.com, 3306) and 'dmstargetkarthik' (Target, Active, Amazon S3, -, -). The table includes columns for Name, Type, Status, Engine, Server name, Port, and Migration Hub Map. At the top right of the table, there are 'Actions' and 'Create endpoint' buttons.

Step 8 : Now Create the Migration Task on DMS Console

AWS DMS

DMS Studio New

Dashboard

Database migration tasks

Replication instances

Endpoints

Certificates

Subnet groups

Events

Event subscriptions

New feature announcements

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AWS DMS

DMS Studio New

Dashboard

Database migration tasks

Replication instances

Endpoints

Certificates

Subnet groups

Events

Event subscriptions

New feature announcements

Feedback Looking for language selection? Find it in the new Unified Settings

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The screenshot shows the AWS DMS (Database Migration Service) console. On the left, there's a sidebar with navigation links like 'Dashboard', 'Database migration tasks' (which is selected), 'Replication instances', 'Endpoints', 'Certificates', 'Subnet groups', 'Events', and 'Event subscriptions'. Below that is a 'New feature announcements' section. The main content area is titled 'Create New Task' and shows the 'Task settings' step. It has three tabs: 'Source database endpoint' (selected), 'Target database endpoint', and 'Migration type'. Under 'Source database endpoint', 'dmkarthik' is selected. Under 'Target database endpoint', 'dmstargetkarthik' is selected. Under 'Migration type', 'Migrate existing data' is selected. Below this, the 'Task settings' section is expanded. It includes 'Editing mode' (set to 'Wizard'), 'Target table preparation mode' (set to 'Drop tables on target'), and 'Include LOB columns in replication' (set to 'Limited LOB mode'). At the bottom of the page, there are links for 'Feedback', 'Looking for language selection? Find it in the new Unified Settings', '© 2022, Amazon Web Services, Inc. or its affiliates.', 'Privacy', 'Terms', and 'Cookie preferences'.

Adding at least 1 selection Rule is must - Enter Schema name - specify the DB name created on MariaDB

The screenshot shows the 'Editing mode' section of the AWS DMS Wizard. It includes two options: 'Wizard' (selected) and 'JSON editor'. The 'Wizard' option allows users to enter a subset of available table mappings. The 'JSON editor' option allows users to enter all available table mappings directly in JSON format. Below this, a note states: 'Specify at least one selection rule with an include action. After you do this, you can add one or more transformation rules.' A 'Selection rules' section is expanded, showing a schema selection rule: 'where schema name is like 'test' and Source table name is like '%', include'. This rule includes fields for 'Schema' (set to 'Enter a schema'), 'Source name' (set to 'test'), 'Source table name' (set to '%'), and 'Action' (set to 'Include').

Keep all other settings default and click on create task :

The screenshot shows the 'Create New Task' configuration page. It includes sections for 'Source filters' (with an 'Info' link), 'Transformation rules' (with a 'Premigration assessment' link), 'Migration task startup configuration' (with 'Start migration task' set to 'Automatically on create'), and 'Tags'. At the bottom right, there are 'Cancel' and 'Create task' buttons.

Now the task will show the below status one by one :

- 1) Creating
- 2) Ready
- 3) Starting
- 4) Running
- 5) Load Completed

Now go to the Table Statistic tab and check the status :

Schema name	Table	Load state	Elapsed load time	Inserts	Deletes	Updates	DDLs	Applied inserts
test	employee	Table completed	< 1 s	0	0	0	0	0

Now verify the Migrated data on the S3 Bucket :

Name	Type	Last modified	Size	Storage class
LOAD00000001.csv	csv	September 29, 2022, 13:11:49 (UTC+05:30)	29.0 B	Standard

Note : the DMS task will create a directory with the database name , then a sub directory with the table name and it will store the .csv file inside the sub directory.

Download and verify the file :

The screenshot shows a Microsoft Excel spreadsheet titled "LOAD00000001". The data is as follows:

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
1	1231232	Gopi															
2	1000005	Karthik															
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	

Steps to Migrate Data from S3 to RDS- MariaDB:

Pre-Req : create the required directory structure within the S3 bucket and then upload this test.csv file in that path as shown in below image -> <Bucket>/testdata/test1/test.csv

The screenshot shows the AWS S3 console interface. The left sidebar has sections for Buckets, Storage Lens, and Feature spotlight. The main area shows a breadcrumb navigation path: Amazon S3 > Buckets > dms-target-karthik-7thdec22 > testdata/ > test1/. Below this, there's a message: "Create the same directory structure as mentioned in JSON Template". A "Copy S3 URI" button is also present. The "Objects" tab is selected, showing a table with one item:

Name	Type	Last modified	Size	Storage class
test.csv	csv	December 7, 2022, 14:35:59 (UTC+05:30)	175.0 B	Standard

A red box highlights the "test.csv" file in the list.

JSON Template for Table Structure to be created on the Target :

```
{  
    "TableCount": "1",  
    "Tables": [  
        {  
            "TableName": "test1",  
            "TablePath": "testdata/test1/",  
            "TableOwner": "testdata",  
            "TableColumns": [  
                {  
                    "ColumnName": "S.No",  
                    "ColumnType": "INT8",  
                    "ColumnNullable": "false",  
                    "ColumnIsPk": "false"  
                },  
                {  
                    "ColumnName": "Name",  
                    "ColumnType": "STRING",  
                    "ColumnLength": "50"  
                },  
                {  
                    "ColumnName": "Id",  
                    "ColumnType": "INT8",  
                    "ColumnLength": "50"  
                },  
                {  
                    "ColumnName": "location",  
                    "ColumnType": "STRING",  
                    "ColumnLength": "10"  
                },  
                {  
                    "ColumnName": "stream",  
                    "ColumnType": "STRING",  
                    "ColumnLength": "50"  
                }  
            ],  
            "TableColumnsTotal": "5"  
        }  
    ]  
}
```

Step1 : Create a S3 Source Endpoint on DMS

The screenshot shows the 'Create endpoint' page in the AWS DMS Management Console. On the left, there's a sidebar with navigation links like 'Dashboard', 'Database migration tasks', 'Replication instances', 'Endpoints' (which is selected), 'Certificates', 'Subnet groups', 'Events', and 'Event subscriptions'. Below that is a 'New feature announcements' section. The main content area has a breadcrumb trail: 'DMS > Endpoints > Create endpoint'. The first section is titled 'Create endpoint' and contains a 'Endpoint type' field with two options: 'Source endpoint' (selected) and 'Target endpoint'. A checkbox 'Select RDS DB instance' is also present. The second section is titled 'Endpoint configuration' and includes fields for 'Endpoint identifier' (set to 'S3Source-Karthik'), 'Descriptive Amazon Resource Name (ARN) - optional' (set to 'Friendly-ARN-name'), and 'Source engine' (set to 'Amazon S3').

➤ Copy the above JSON Template into Table Structure textbox

The screenshot continues from the previous one, showing the 'Table structure' section. It contains a JSON template for defining table structures:

```
{"TableName": "test1", "TablePath": "testdata/test1/", "TableOwner": "testdata",}
```

Below this, there are sections for 'Bucket folder' (empty), 'CDC path' (empty), and 'Endpoint settings' (with a plus sign icon).

Test Endpoint Connection – once it shows successful – Click on Create Endpoint button

The screenshot shows the AWS DMS Management Console. On the left, the navigation menu includes 'Endpoints' under 'AWS DMS'. The main panel shows a 'Tags' section and a 'Test endpoint connection (optional)' section. In the 'VPC' dropdown, 'vpc-01ae1eb62976a41c6' is selected. In the 'Replication instance' dropdown, 'rp-instance-karthik' is selected. A warning message states: 'Your endpoint will always be created even if the connection fails. After clicking 'Run test', DMS creates the endpoint with the details you provided and attempts to connect to it. If the connection fails, you can edit the endpoint definition and test the connection again. You can also delete the endpoint manually.' Below this is a 'Run test' button. A table shows the results: Endpoint identifier 's3source-karthik' and Replication instance 'rp-instance-karthik' with Status 'successful'. At the bottom right are 'Cancel' and 'Create endpoint' buttons.

Step2 : Create a RDS Target Endpoint on DMS

The screenshot shows the 'Create endpoint' page in the AWS DMS Management Console. The left sidebar shows 'Endpoints' selected. The main area has a 'Create endpoint' title. Under 'Endpoint type', 'Target endpoint' is selected (indicated by a blue border). A checkbox 'Select RDS DB instance' is checked, and the 'RDS Instance' dropdown shows 'dmskarthik'. The 'Endpoint configuration' section includes fields for 'Endpoint identifier' (set to 'RDSTarget-Karthik') and 'Descriptive Amazon Resource Name (ARN) - optional' (left empty). At the bottom are 'Feedback' and 'Create endpoint' buttons.

Specify the Password as Admin1234

Screenshot of the AWS DMS Endpoint creation page:

AWS DMS

DMS Studio [New](#)

Endpoints

Friendly-ARN-name:

Target engine:

Access to endpoint database:

- AWS Secrets Manager
- Provide access information manually

Server name:

Port:

User name: [Info](#)

Password: [Info](#)

Secure Socket Layer (SSL) mode:

Endpoint settings

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Test Endpoint Connection – once it shows successful – Click on Create Endpoint button

Screenshot of the AWS DMS Endpoint creation page showing the connection test results:

AWS DMS

Endpoints

Tags

Test endpoint connection (optional)

VPC:

Replication instance:

Run test

Endpoint identifier: **Replication instance**: **Status**: **Message**:

Create endpoint

Feedback Looking for language selection? Find it in the new [Unified Settings](#) [Feedback](#)

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Step 3 : Create the Migration Task on DMS console

The screenshot shows the 'Create database migration task' configuration page in the AWS DMS console. The 'Task configuration' section is active. It includes fields for 'Task identifier' (S3-to-RDS-Karthik), 'Descriptive Amazon Resource Name (ARN) - optional' (Friendly-ARN-name), and 'Replication instance' (rp-instance-karthik - vpc-01ae1eb62976a41c6). A callout box provides information about upgrades to versions 3.4.7 and higher, stating that instances using version 3.4.7 require VPC endpoints or public routes for source and target endpoints. The 'Source database endpoint' is set to s3source-karthik.

The screenshot shows the 'Task settings' configuration page in the AWS DMS console. Under 'Editing mode', the 'Wizard' option is selected, indicating that only a subset of task settings will be used. The 'JSON editor' option is also available. Under 'Target table preparation mode', the 'Drop tables on target' option is selected. Under 'Include LOB columns in replication', the 'Limited LOB mode' option is selected.

The screenshot shows the AWS DMS Create New Task wizard. On the left, the navigation pane includes options like Dashboard, Database migration tasks (selected), Replication instances, Endpoints, Certificates, Subnet groups, Events, Event subscriptions, and New feature announcements. The main panel has sections for 'Limited LOB mode' (Maximum LOB size set to 32 KB), 'Enable validation' (unchecked), 'Task logs' (unchecked), 'Enable CloudWatch logs' (unchecked), and 'Advanced task settings'. Below this is the 'Table mappings' section with 'Editing mode' set to 'Wizard' (selected) and 'JSON editor' (unchecked). A note says 'Specify at least one selection rule with an include action. After you do this, you can add one or more transformation rules.' At the bottom, there's a feedback link, copyright notice (© 2022, Amazon Web Services, Inc. or its affiliates.), and links for Privacy, Terms, and Cookie preferences.

Since one Selection Rule is must – Add a selection rule with Wild card character to copy all the data

The screenshot shows the 'Selection rules' configuration in the AWS DMS Create New Task wizard. It includes fields for 'Schema' (Enter a schema), 'Source name' (Use the % character as a wildcard, containing '%'), 'Source table name' (Use the % character as a wildcard, containing '%'), and 'Action' (Include). Below these are 'Source filters' and 'Add column filter' buttons. At the bottom, there's a 'Transformation rules' section. The footer contains a feedback link, copyright notice (© 2022, Amazon Web Services, Inc. or its affiliates.), and links for Privacy, Terms, and Cookie preferences.

Leave all other settings to default and click on Create Task Button

The screenshot shows the 'Create New Task' step in the AWS DMS wizard. The left sidebar lists options like Dashboard, Database migration tasks, Replication instances, Endpoints, Certificates, Subnet groups, Events, Event subscriptions, and New feature announcements. The main area has sections for 'Transformation rules', 'Premigration assessment' (with an info link), 'Migration task startup configuration' (with 'Start migration task' set to 'Automatically on create'), and 'Tags'. At the bottom right are 'Cancel' and 'Create task' buttons.

Now the task will show the below status one by one :

- 1) Creating
- 2) Ready
- 3) Starting
- 4) Running
- 5) Load Completed

The screenshot shows the AWS DMS (Database Migration Service) console. On the left, there's a sidebar with options like 'AWS DMS', 'DMS Studio', 'Dashboard', 'Database migration tasks' (which is selected and highlighted in orange), 'Replication instances', 'Endpoints', 'Certificates', 'Subnet groups', 'Events', and 'Event subscriptions'. Below that is a 'New feature announcements' section. The main content area is titled 'Database migration tasks (2)' and shows a table with the following data:

Identifier	Status	Progress	Type	Source	Target	Replication instance	Started
kruser0025-task	Load complete	100%	Full load	kruser0025s3source	kruser0025-dbtarget	kruser0025	September
s3-to-rds-karthik	Load complete	100%	Full load	s3source-karthik	rdstarget-karthik	rp-instance-karthik	September

The third row, 's3-to-rds-karthik', has a red box drawn around it. At the bottom of the page, there's a footer with links for 'Feedback', 'Unified Settings', '© 2022, Amazon Web Services, Inc. or its affiliates.', 'Privacy', 'Terms', and 'Cookie preferences'.

Now switch to the MySQL Workbench and verify the migrated database on RDS MariaDB cloud instance.