Module 11: Migration
Assignment - 3

Problem Statement:

You work for XYZ Corporation. Your corporation wants to move itsinfrastructure to the cloud to improve the performance and availability of the application hosted. You are given the opportunity to accomplish the tasks for a successful migration.

Tasks To Be Performed:

1. Launch an RDS MySQL database. Login and insert some data into it.
2. Use Database Migration (DMS) System to migrate the MySQL databaseinto an RDS PostgreSQL database.

Solution

Steps for creation of RDS MySQL database

Go to the Management console→ Search RDS→Create Database→Standard Create→Select MySQL→Engine version(depends on your requirement)→Free tier→ Database instance identifier name (mySourceDatabase) →Master username(admin)→Password→DB instance class(Burstable class, t3.micro)→Allocated storage(minimum 20GiB)→Don't connect to an EC2→Default VPC→Public access(yes)→Password Authentication→Additional configuration(initial DB name)→disabled automatic backup→disabled encryption→enable auto minor version update→Maintenance Window(no preference)→Create Database

Like this, we also need to create a RDS PostgreSQL which is called a target DataBase.

Now we should configure our Database Migration Service (DMS) before filling in data over there. In DMS we need three things' Endpoints, Replication, and Database migration task. Always keep in mind that we have to first create a Replication instance then Endpoints and DB migration tasks.

Steps for creation of Replication instance

Go to management console→ Search DMS→Replication→ Create replication instance→name→instance class→Allocated size(20Gib)→VPC(default)→Multi AZ(Dev/test workload(single AZ))→Public access(enable)→Advance security and networking (default) → CREATE

Before going to create Endpoints, let's fill in some data on t the MySQL DB.

Steps for the Creation of Endpoints

Click on Endpoints→Create Endpoint→Source Endpoint (Source DB)→Source Endpoint(mySQL)→Access to endpoint database (Provide access manually)→Server name→Copy the endpoint of the DB and paste it here→Port (3306)→Username→password→ Create Endpoint.

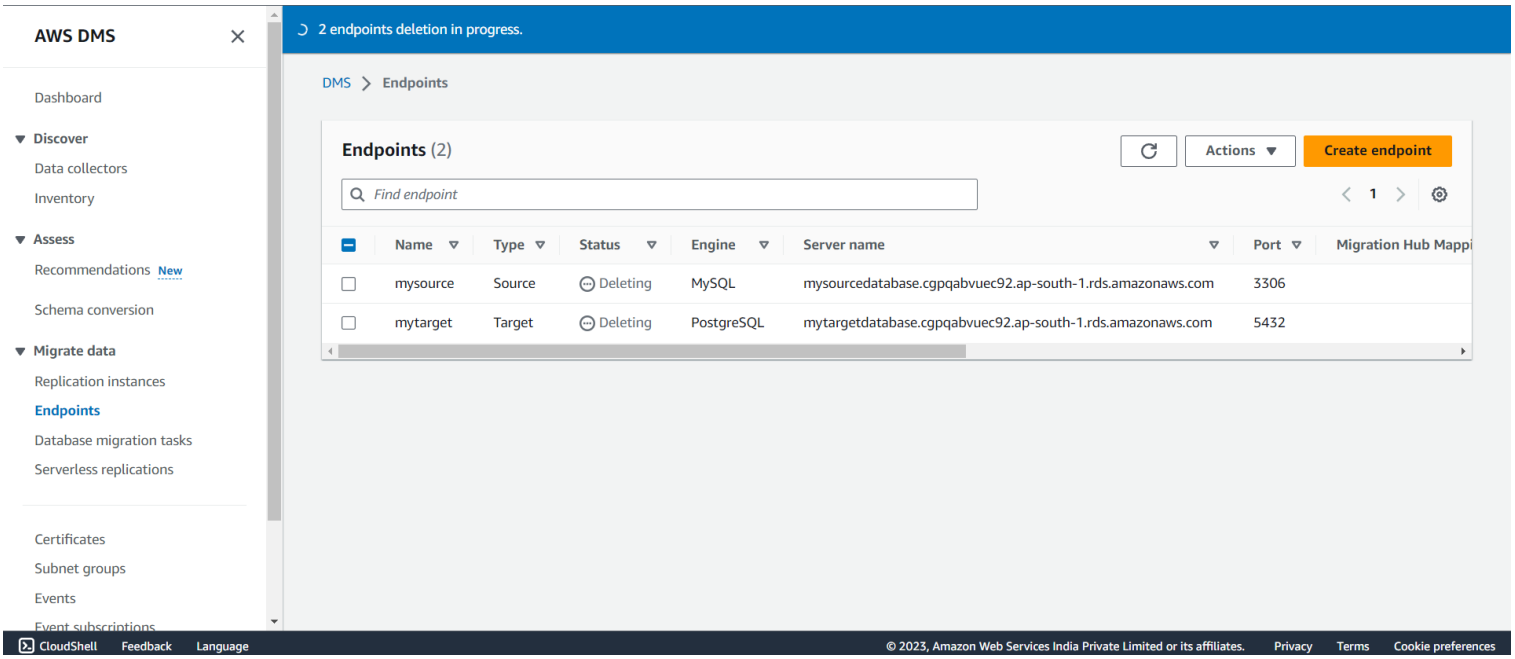
Now we need to create the Target Endpoints.

Click on Endpoints→Create Endpoint→Target Endpoint (Target DB)→Source Endpoint (PostgreSQL)→Access to endpoint database (Provide access manually)→Server name→Copy the endpoint of the DB and paste it here→Port (5432)→Username→password→ Create Endpoint.

Now, we need to create DB Migration Tasks

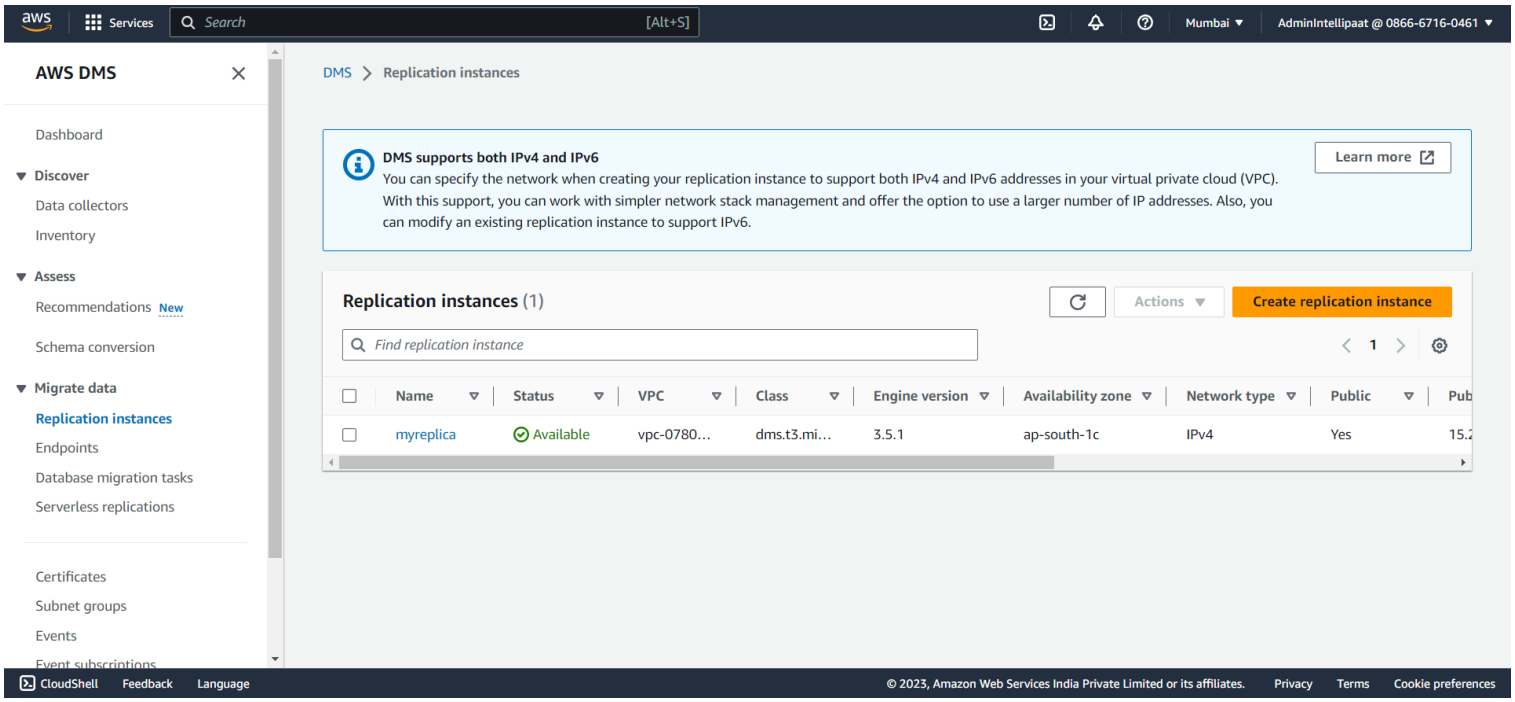
DB Migration Task→ Create Task→ Task identifier (name)→Replication Instance→ Source DB Endpoints→ Target DB Endpoint→ Migration type(Migration existing data)→ Rules(at least make one rule over here)→ Add new selection rules→ Schema(Enter a schema)→ Create Task

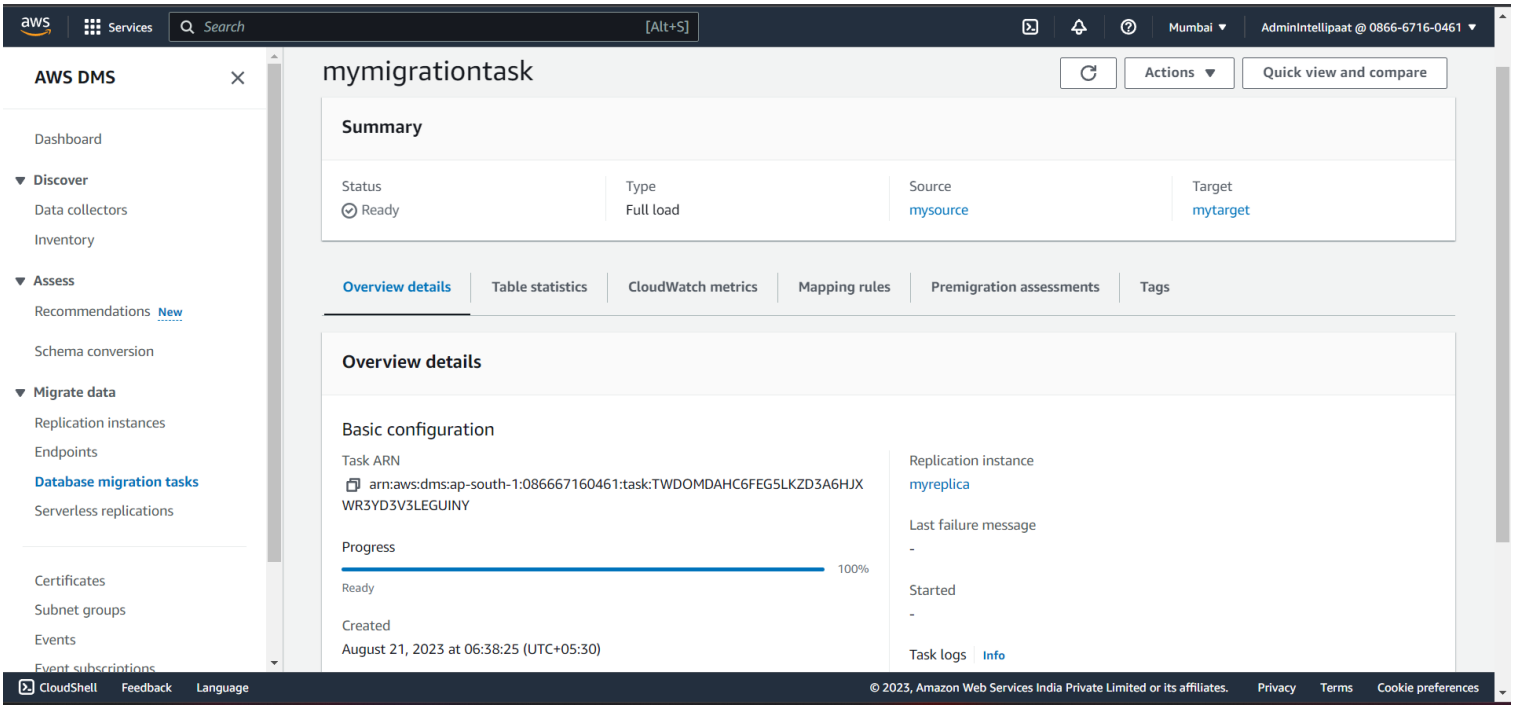
RESULT



XAMPP for Windows

```
5 rows in set (0.062 sec)

MySQL [(none)]> use myDatabase;
Database changed
MySQL [myDatabase]> create table myTable(eid int, name varchar(20));
Query OK, 0 rows affected (0.081 sec)

MySQL [myDatabase]> show tables;
+----------------------+
| Tables_in_myDatabase |
+----------------------+
| myTable              |
+----------------------+
1 row in set (0.060 sec)

MySQL [myDatabase]> insert into mytable values (1,"Bikiron"),(2,"Sharma"),(3,"Intellipaat");
ERROR 1146 (42S02): Table 'myDatabase.mytable' doesn't exist
MySQL [myDatabase]> insert into myTable values (1,"Bikiron"),(2,"Sharma"),(3,"Intellipaat");
Query OK, 3 rows affected (0.061 sec)
Records: 3  Duplicates: 0  Warnings: 0

MySQL [myDatabase]> select * from myTable;
+------+-------------+
| eid  | name        |
+------+-------------+
|    1 | Bikiron     |
|    2 | Sharma      |
|    3 | Intellipaat |
+------+-------------+
3 rows in set (0.059 sec)
```




aws
Services
Search
[Alt+S]
Mumbai
AdminIntellipaat @ 0866-6716-0461
AWS DMS
Dashboard
Discover
Data collectors
Inventory
Assess
Recommendations New
Schema conversion
Migrate data
Replication instances
Endpoints
Database migration tasks
Serverless replications
Certificates
Subnet groups
Events
Event subscriptions
mymigrationtask
Actions
Quick view and compare
Summary
Status
Ready
Type
Full load
Source
mysource
Target
mytarget
Overview details
Table statistics
CloudWatch metrics
Mapping rules
Premigration assessments
Tags
Overview details
Basic configuration
Task ARN
arn:aws:dms:ap-south-1:086667160461:task:TWDOMDAHC6FEG5LKZD3A6HJXWR3YD3V3LEGUINY
Progress
100%
Ready
Created
August 21, 2023 at 06:38:25 (UTC+05:30)
Replication instance
myreplica
Last failure message
-
Started
-
Task logs
Info
CloudShell
Feedback
Language
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