**AWS ASSIGNMENT-2**

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(Q) Create RDS and Connect with SQL Workbench ?

**What is RDS?**

Amazon Relational Database Service (Amazon RDS) is a web service that makes it easier to set up, operate, and scale a relational database in the AWS Cloud.

**Why RDS ?**

Amazon RDS is an easy to manage relational database service optimized for total cost of ownership. It is simple to set up, operate, and scale with demand. Amazon RDS automates the undifferentiated database management tasks, such as provisioning, configuring, backups, and patching. Amazon RDS enables customers to create a new database in minutes, and offers flexibility to customize databases to meet their needs across 8 engines and 2 deployment options.

**What is the use of RDS?**

Amazon RDS allows you to easily stop and start your database instances for up to seven days at a time. This makes it easier and affordable to use databases for development and test purposes, where the database is not required to be running all of the time.

**What is the difference between Amazon EC2 and RDS?**

Amazon RDS is easier to set up, manage and maintain than running Oracle Database on Amazon EC2.

**How Does Amazon RDS Work ?**

Databases store large amounts of data that applications can draw upon to help them perform various tasks. A relational database uses tables to store data and is called relational because it organizes data points with defined relationships. Amazon provides several instance types with different resources, such as CPU, memory, storage options, and networking capability. Each type comes in a variety of sizes to suit the needs of different workloads. RDS users can use AWS Identity and Access Management to define and set permissions to access RDS databases.

Steps to create RDS and Connect with SQL Workbench:-

**STEP-1:** Open Aws account and search RDS and click Create Database select Standard Create .

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**STEP-2:** Select Engine Options as MYSQL.

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**STEP-3:** Enable MY SQL Community Edition.

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**STEP-4 :**  Select Engine Version as MySQL 8.0.31 and select templates as Free Tier.

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**STEP-5:** Go to Credential Settings and give master username as “Admin” and Credential Management as Self Managed.

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**STEP-6:** Auto Genetate Password or Manually Create the Password.

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**STEP-7:** Select Instance Configuration as db.t3.micro .

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**STEP-8:** Storage type as gp2, and attached storage as 20 and enable storage auto scaling.

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**STEP-9:** Give Maximum Storage Threshold as 1000.

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**STEP-10:** For Connectivity as Don’t connect to an EC2 ,Network type as IPV4 and Select VPC .

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**STEP-11:** Give Public Access as Yes and Choosing security group.

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**STEP-12:** Select Database port as 3306

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**STEP-13:**  RDS Database is Successfully created.

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**STEP-14:** Go to RDS Database and go to connectivity & Security and copy Endpoint.

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Description automatically generated**STEP-15:** Go to MySQL Workbench and add connection like give any name as Connection name and paste that Endpoint in this Host Name and user name as Admin and give password which was given before in the time of creation RDS and test Connection .

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**STEP-16:** Successfully made by MySQL Connection.

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**STEP-17:** In this rds-sql connection was successfully and open it.

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**STEP-18:** Write Queries and run it .

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**Connected RDS with MySQL Successfully.**