Try it out objective

Use this hands-on to get started with managed relational database service - RDS.

The goal

The following are the goals of this hands-on:

1. Create a MySQL RDS fully managed instance

2. Run sample queries (only for technical learners)

3. Understand the simplicity of database management on the cloud

Failover   **Disaster Recovery**   **Backups**

Please note if a field (short for text field/text area/checkbox/radio/dropdown/list or any other UI element) is not specified in the following steps, it means the default value of the field set by AWS needs to be used. No change is needed for those fields as part of this hands-on.

A. Hands-on: Create the database

1. Go to the RDS management console at https://console.aws.amazon.com/rds/ (you will be required to sign in)

2. Ensure the region is **N Virginia**

3. In the left navigation, under **Amazon RDS**, click **Databases**

4. Click on **Create database** button on the right top of the screen

5. Under the **Choose a database creation method** card select the **Standard create** radio button (should be selected by default)

6. Under the **Engine options** card select the **radio** button for **MySQL**

7. Under the **Templates** card click the **Dev/Test** radio button (Note - this is not production setting and is being selected for this exercise only)

8. Under the **Settings** card make the following changes -

    a) For the **DB instance identifier** text field paste the following value -

    ```
    gl-rds
    ```

    b) Expand the **Credentials Settings** section (if not already expanded)

    c) For the **Master username** text field paste the following value -

    ```
    root
    ```

    d) For both the **Master password** and **Confirm password** fields paste the following value (case matters) -

    ```
    password
    ```

9. Under the **DB instance class** card make the following changes -

    a) Select the **radio** button for **Bustable classes** (Includes t classes)

    b) Ensure in the dropdown (just below the above radio button) **db.t3.micro** is displayed/selected

10. Under the **Storage** card make the following changes -

    a) Select/confirm the **Storage type** to be **General Purpose SSD (gp2)**

    b) **Enable storage autoscaling** checkbox should be **unselected**

11. Under the **Availability & durability** card ensure the radio for **Do not create a standby instance** is selected

12. Under the **Connectivity** card make the following changes -

    a) For the **Public access** radio ensure **No** is selected

    b) For the **VPC security group** select the **Create new** radio button

    c) For the **New VPC security group name** paste the following value -

    ```
    rds-sg
    ```

13. Under the **Database authentication** card ensure the **radio** button for **Password authentication** is selected (should be selected by default)

14. Expand the **Additional configuration** card (if not already) and make the following changes -

    a) For the Initial database name field paste the following value -

    ```
    employees
    ```

    b) The checkbox for **Enable automated backups** should be **unchecked**

    c) The checkbox for **Enable encryption** should be **unchecked**

d) The checkbox for **Enable enhanced monitoring** should be **unchecked**

e) The checkbox for **Enable auto minor version upgrade** should be **unchecked**

Note - The above values should be enabled for production database instances.

15. Click on the **Create database** button (the database will take about 10 minutes to get created, can get done sooner). Refresh the database listing page after every 1 min to check if the process is complete (**Status** shows **Available**).

B. Hands-On: Running SQLs

This hands-on is optional for learners who are not from technical background. Proceed to the next hands-on "C" if you intend to skip it.

Complete details of this handson is outlined in the **Practice Lab - RDS | EC2 database program**. Only the highlevel flow is mentioned below.

1. Go to the EC2 management console and launch an EC2 instance

2. Execute the typical apt update, verify python3, use pip to install the dependencies and install the MySQL client

3. Navigate to the Security groups option and update the rds-sg inbound rules to set the CIDR to the default VPC (should be 172.31.0.0/16)

4. Ensure the security group opens the port for 22 and also attach the rds-sg security group

5. Use the sample python code (rds.py) to test the database (ensure the employees.sql is executed before hand)

6. Terminate all EC2 instances

C. Hands-On: Cleaning up!

1. Go back to the RDS management console

2. In the left navigation, under **Amazon RDS**, click **Databases**

3. Click on the **radio button** to the left of the DB identifier **gl-rds**

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4. Click on the **Actions dropdown** (top right side of the screen) and select **Delete**

5. **Unselect** the **Create final snapshot** checkbox

6. **Check** the "I acknowledge that upon instance ...." message checkbox

7. Paste the following text in the text field titled "**To confirm deletion, type delete me into the field**" (case matters)

> delete me

8. Click on the **Delete** button

9. The delete process will take about 10 mins (can get done sooner). Refresh the database listing page after every 1 min to check if the process is complete (**there will not be any database listed**).