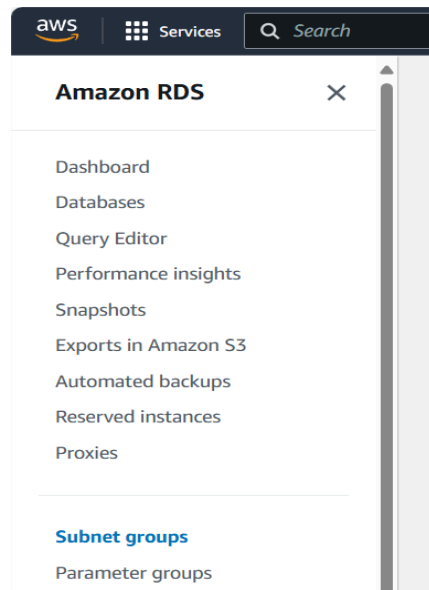


RDS

AWS RDS service is used to launch your database in the AWS environment. So we will be Launching a Database in th VPC we created earlier.

Create RDS instance:

1. Firstly search for RDS in AWS console and select it to go to the dashboard for RDS.
2. Now before creating a DB instance you need to create a DB subnet group (Basically this defines in which subnet your Database will reside). For this follow these steps:
 - Select “Subnet Groups” option from the RDS dashboard



- Then click on “Create DB Subnet Group”.
 - After that fill in the details like your VPC and subnets in which you want your DB.
3. Now we will create a DB instance in RDS. For this follow these steps:
 - Select “Databases” tab from the RDS dashboard and click on “Create database” option.
 - Then fill in the details according to your project for these sections:
 - **Choose a database creation method:** Standard(If you want to configure DB settings) OR Easy(If you want AWS to configure settings for you)
 - **DB Engine:** Like MYSQL, PostgresQL, etc.
 - **Templates:** Choose templates for your DB. The options are Production, Dev and Free Tier
 - **Availability and Durability:** This option is available only if you select the Production Template.
 - **Settings:** Username and password settings for your DB.
 - **Instance Configuration and Storage:** According to your project, configure memory capability and storage.

- **Connectivity:** In this select the VPC, subnet and security group you created. And if you have an EC2 instance running then select that if not then don't select it you can modify this later once you create your website. And this you also need to select if you want your DB to be publicly accessible or not. I would suggest it to keep it publicly accessible for now so that you can work with it. You can make it private later on.

- **Additional Configuration:** In this configure backups for your DB.

4. After filling in all the details click on "Create Database" button
5. You are done creating DB instances.

Working with Database on RDS

1. Connecting with MYSQL Workbench locally: Now we will connect the DB instance we created in RDS to MySQL. For doing this you first need to ensure two things:

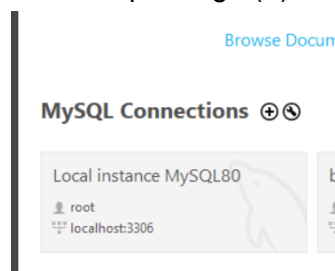
- Firstly, your DB should be accessible through the internet i.e. you should have selected the Publicly accessible option while creating a DB instance. You can check this by clicking on your db and see the details for your db.

Connectivity & security	Monitoring	Logs & events	Configuration	Zero-ETL integrations	Maintenance & backups
Connectivity & security					
Endpoint & port Endpoint burn-database.clcckil6sxn.us-east-1.rds.amazonaws.com Port 3306	Networking Availability Zone us-east-1a VPC burn-vpc (vpc-057c15f895218daa3) Subnet group burn-public-1 Subnets subnet-0d740caeab738b998 subnet-0d6aca50c00ce4b71	Security VPC security groups burn-data-security (sg-087a23c3508246cbd) Active Publicly accessible Yes Certificate authority info rds-ca-rsa2048-g1 Certificate authority date May 25, 2061, 16:34 (UTC-07:00) DB instance certificate expiration date			

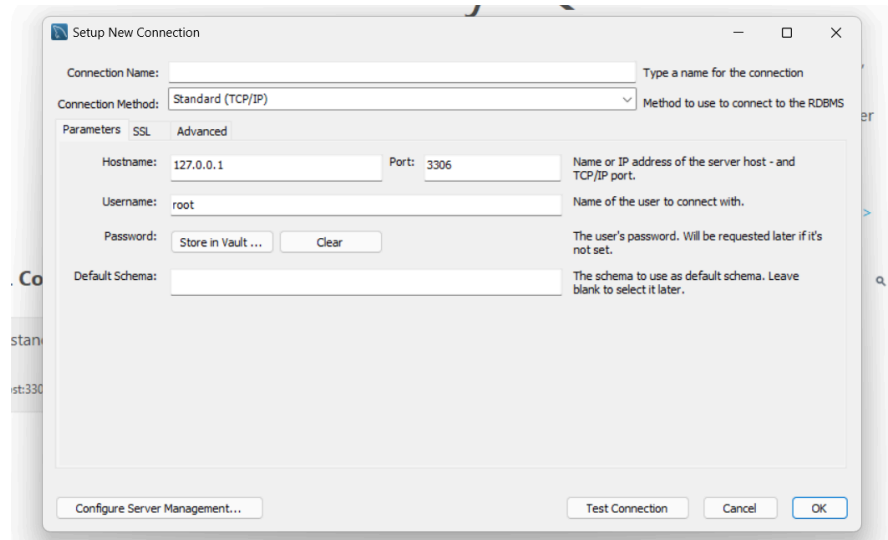
- And Second thing, is the Security Group you selected while creating DB. Should allow MySQL traffic in inbound rule. We did this when we created a security group in VPC.

So after checking these things we can create a database and tables in that. For this follow these steps:

- Open MySQL workbench.
- Click on "plus sign (+)" near MYSQL Connectivity for adding the connection



- Once you click on it you this box will open



In this fill the details:

Connection Name: Name the connection whatever you want.

Hostname and Port: Copy the Endpoint path of your Db instance. You can do this by selecting your DB instance and then in the details you can see Endpoint & port from this copy both and paste it here.

Username: Add the username you defined while creating DB instance in RDS

- Now , we will click on Test Connection to check if everything is okay or not. If your details are right and everything is good then on clicking Test Connection you will get a pop up box for entering the Password (enter the password you created while creating DB instance) for your DB and in case your details are wrong or there is some security issue then you will get an error.
- Once you enter the password you get a pop up box confirming everything is good with connection and then you can close that pop up and click on the “OK” button.
- After this you can see your connection in MYSQL Connections so that you can open it from there anytime you want.

2. Now you can create tables in your DB instance using MYSQL workbench.

So we created an RDS DB instance and also created a table in it using the MYSQL workbench. Next we will perform CRUD operations on the tables in this Database using Lambda Service of AWS. (Note: You can do CRUD operations using MYSQL also for testing purposes but as I want to create a website later on to perform CRUD operations on this database I am creating Lambda functions so that I can use it later for my website.)