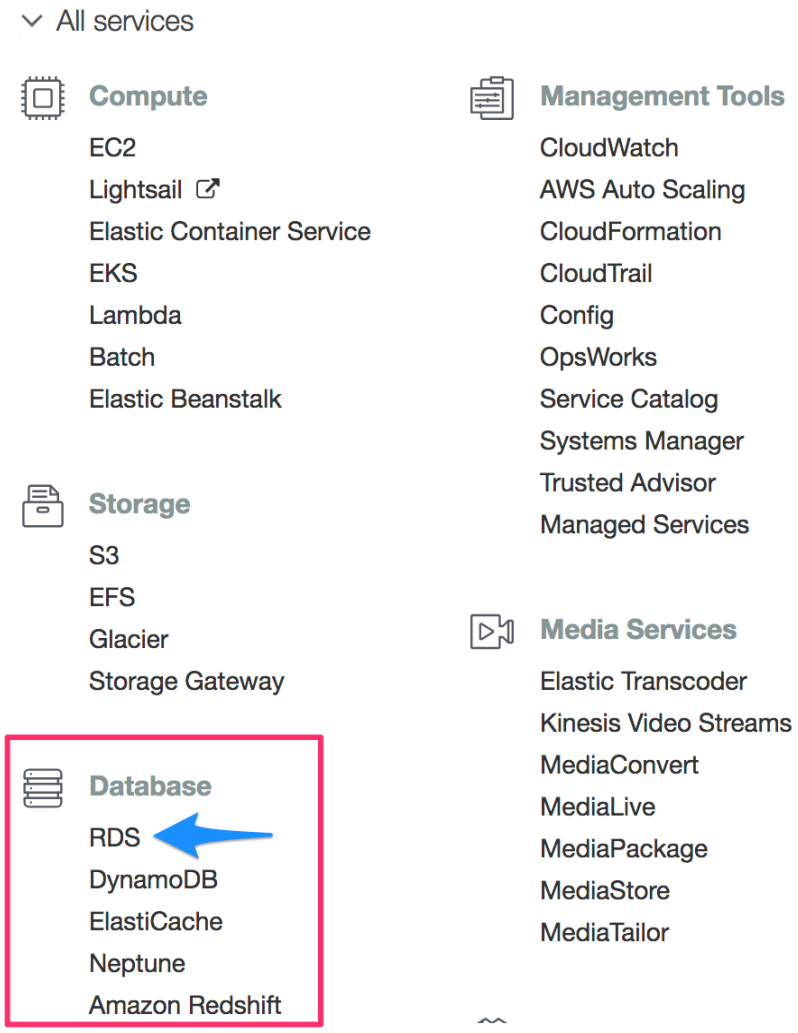
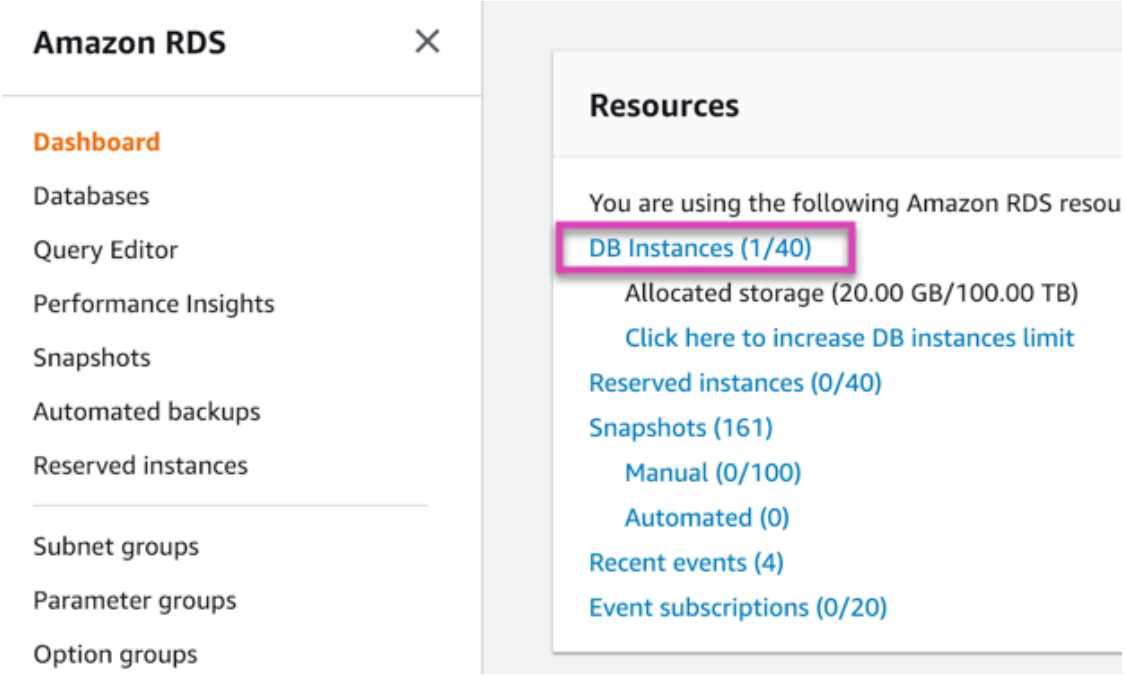
RDS, PostgreSQL, and pgAdmin

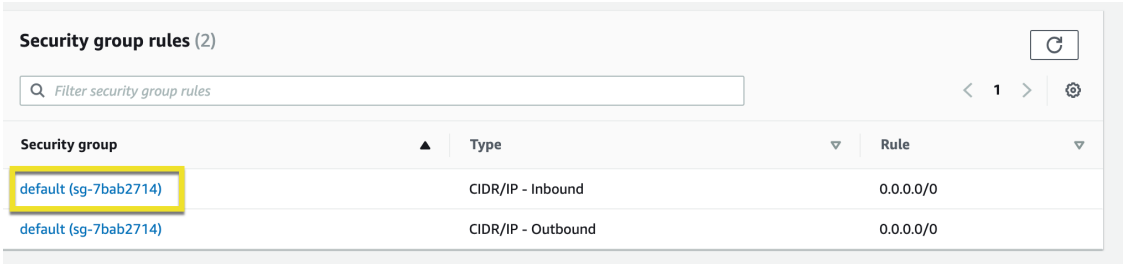
- Open up the pgAdmin UI. Explain the following to students:
    - pgAdmin will connect to a cloud-based database, such as AWS, as well as local databases.
    - pgAdmin offers a visual interface for managing data.
- Log in to the AWS console and navigate to "RDS" under "Database."



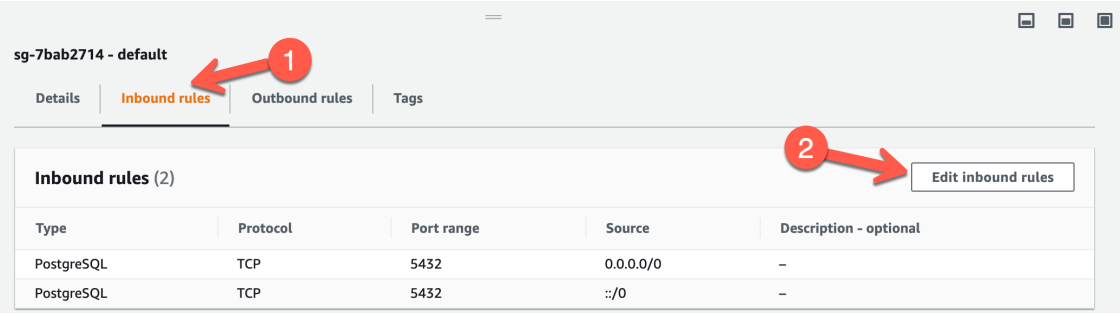
- Click on the “Services” dropdown arrow on the top left, and then select “RDS”. In the “Resources” section to the right, select “DB Instances.”



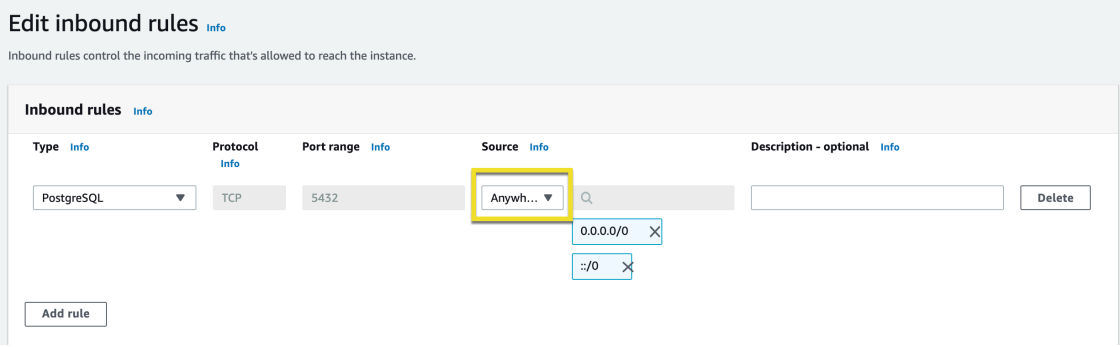
- Go to the database created earlier, `mypostgresdb`.
- Navigate to the “Security Group” rules section on the right, and explain the following:
    - These security groups tell the RDS instance what traffic is allowed in and out of the database.
    - The security settings can range from restrictive, such as a specific URL, to open.
- The database will be open to all traffic.
- Click the security group for type “CIDR/IP - Inbound.”



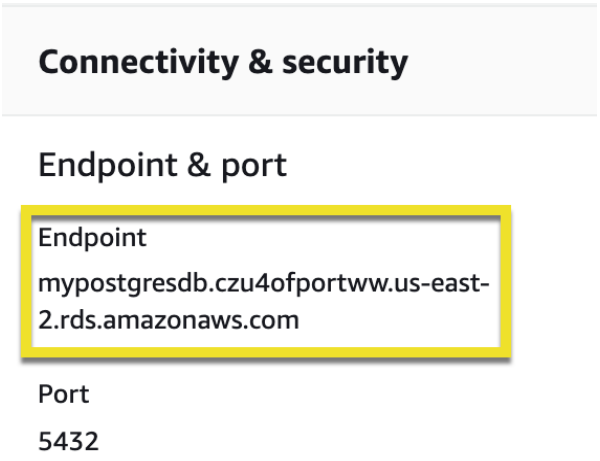
- You will be redirected to a new page. Follow these steps to give the database access to all inbound traffic:
    - Click on the “Inbound rules” tab, then click **Edit Inbound Rules**. This will bring up a menu to set rules for the security group.



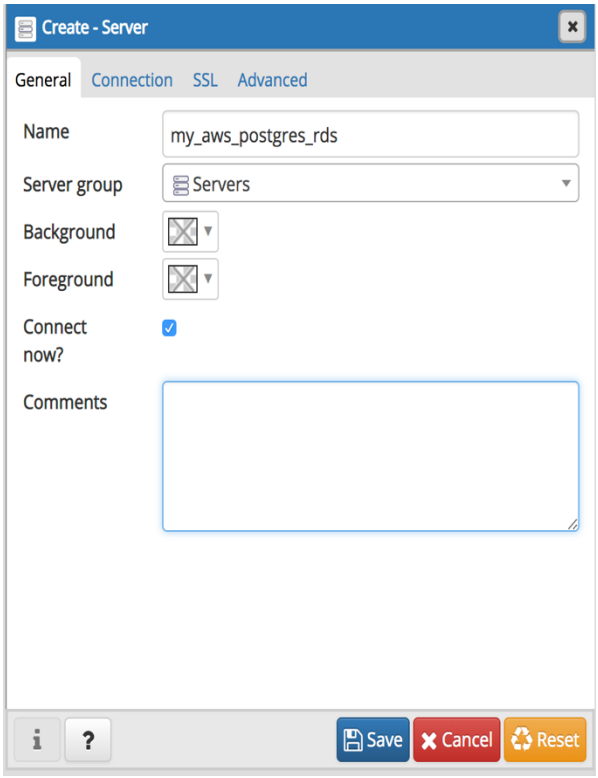
    - Change the “Source” to “Anywhere” and click **Save**. The RDS instance will now accept a connection from anywhere. This isn’t completely open to the world because the endpoint, username, and password are still needed to connect.



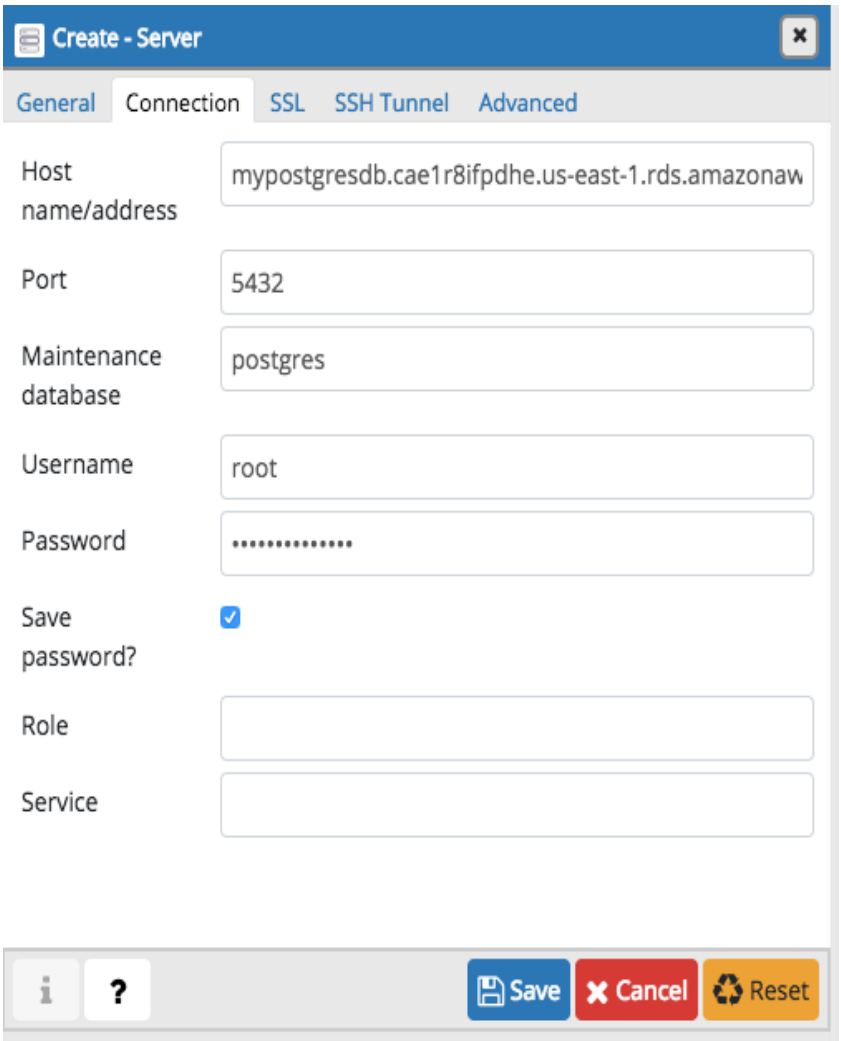
- Navigate back to the instance console, and have the class find the endpoint in the "Connectivity" tab.



- Open up pgAdmin, right-click **Servers**, and then go to "Create - Server". Then, walk through the following steps to create a connection to the AWS RDS instance:
    - Under the "General" tab, enter the server name as `my_aws_postgres_rds`.



- Under the “Connection” tab, do the following:
    - Enter the endpoint in the “Hostname/address” field. This is unique to the instance.
    - Enter ‘postgres’ in the “Maintenance database” field. This is the default for all postgres RDS instances.
    - Enter the username in the “Username” field—in this case, `root`.
    - Enter the password that was created for your RDS instance.
    - Check the box next to “Save Password.”
- Click **Save**. If all information is entered correctly, this will set up the connection and not return an error.



- To delete a database click on Deleting a DB instance and follow the instructions.

Deleting a DB instance

After you have connected to the sample DB instance that you created, you should delete the DB instance so you are no longer charged for it.

To delete a DB instance with no final DB snapshot

1. Sign in to the AWS Management Console and open the Amazon RDS console at https://console.aws.amazon.com/rds/.
2. In the navigation pane, choose **Databases**.
3. Choose the DB instance that you want to delete.
4. For **Actions**, choose **Delete**.
5. For **Create final snapshot?**, choose **No**, and select the acknowledgment.
6. Choose **Delete**.