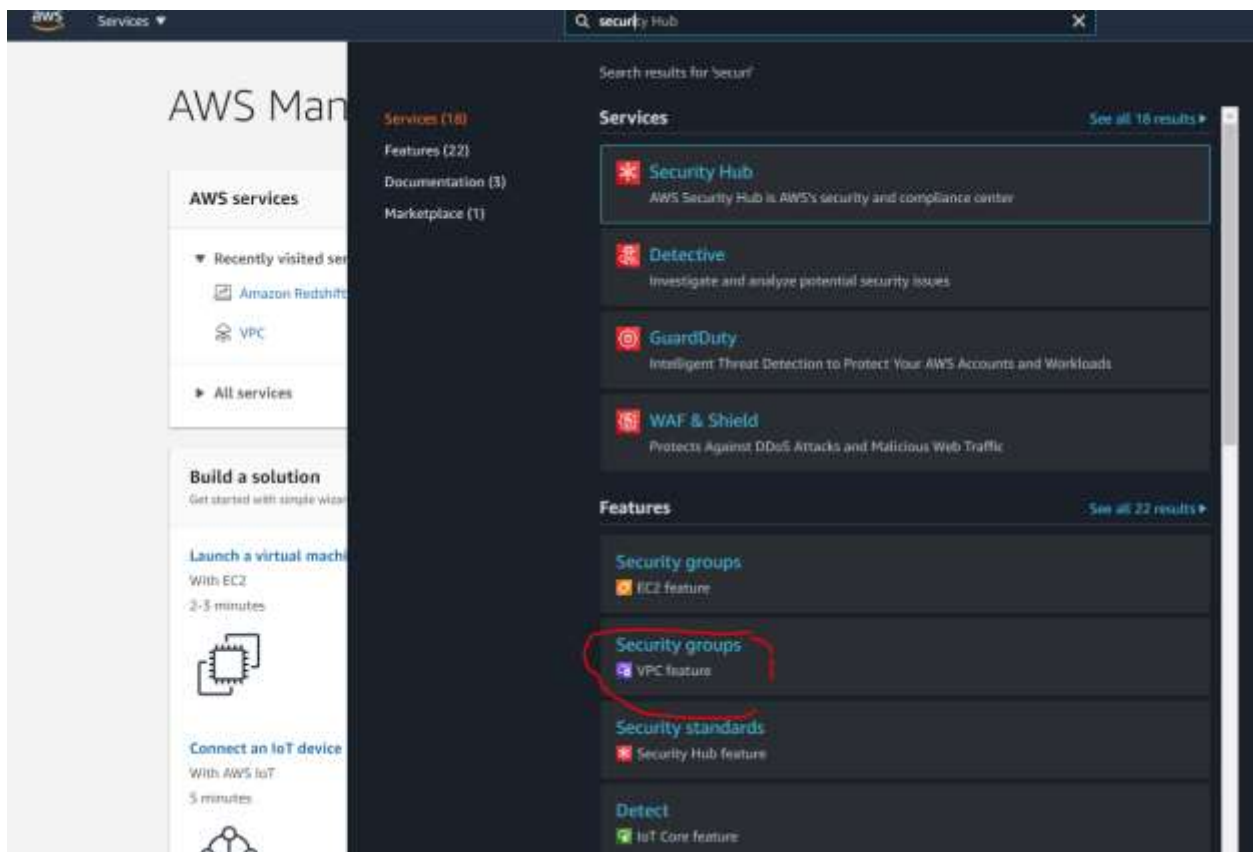


## HOE 3 - Setup and Use SQL Workbench to Access Cluster remotely

Before we can actually access our cluster, we need to set up our Security Group so that we can control access to our Redshift cluster.

Type Security and that should provide security groups. Select the one with the VPC option.



Next we need to select “Create security group”.



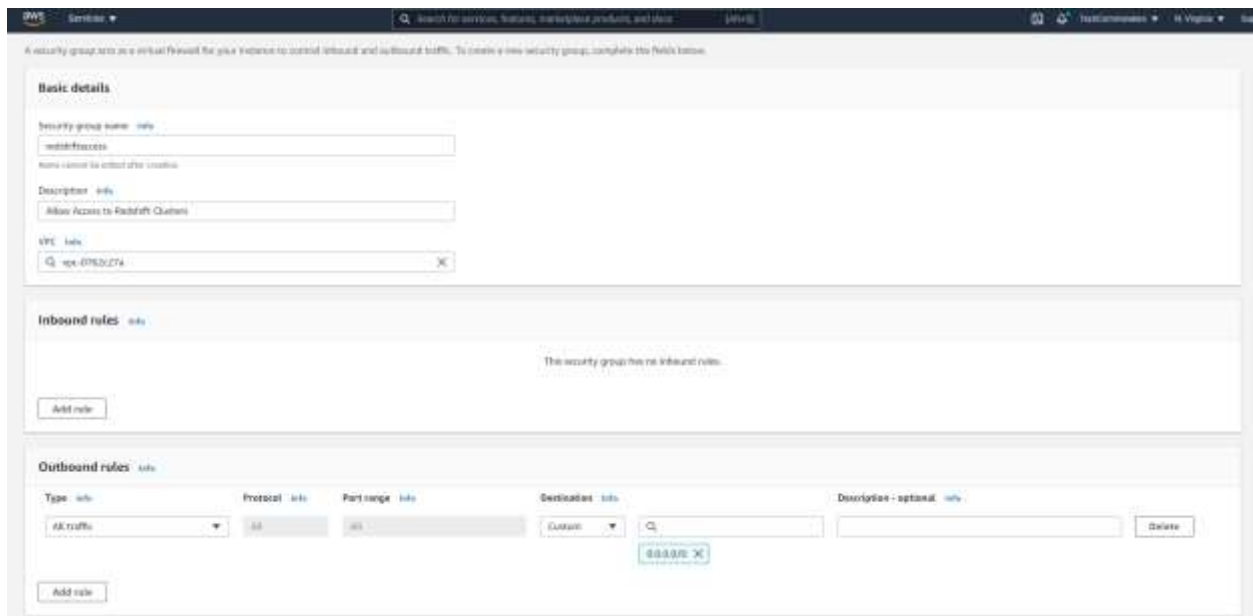
Next we need to enter a name and description. In a production deployment we would also want to create a VPC for our Redshift clusters.

In this case select the VPC which would be default if you have not created any. If you have created a VPC please choose the correct VPC so you don't hold up your access.

Security Group Name – redshiftaccess

Enter Description

VPC – Leave as default.



A security group acts as a virtual firewall for your instances to control inbound and outbound traffic. To create a new security group, complete the fields below.

**Basic details**

Security group name:

Name cannot be edited after creation.

Description:

VPC:

**Inbound rules**

The security group has no inbound rules.

[Add rule](#)

**Outbound rules**

Type	Protocol	Port range	Destination	Description - optional
All traffic	TCP	80	Custom	

[Add rule](#)

Next select the “Add Rule” in the Inbound rules.



**Inbound rules**

This security group has no inbound rules.

[Add rule](#)

Create a rule for TCP Port 5439 (Which is the port RedShift Uses)

Configure the address as your address by selecting “My IP” and enter a description

**Inbound rules** [info](#)

Type: [info](#) Protocol: [info](#) Port range: [info](#) Source: [info](#) Description - optional: [info](#)

Custom TCP TCP 1-65535 My IP 

Skip over the outbound rules in this case and tags.

Select “Create security group”

**Outbound rules** [info](#)

Type: [info](#) Protocol: [info](#) Port range: [info](#) Destination: [info](#) Description - optional: [info](#)

All traffic All All Egress

**Tags - optional**

A tag is a label that you attach to an AWS resource. Each tag consists of a key and an optional value. You can use tags to search and filter your resources or track your AWS costs.

No tags associated with this resource.

You can add up to 50 new tags.

Next validate the newly created security group is created.

**Security Groups (10)** [info](#)

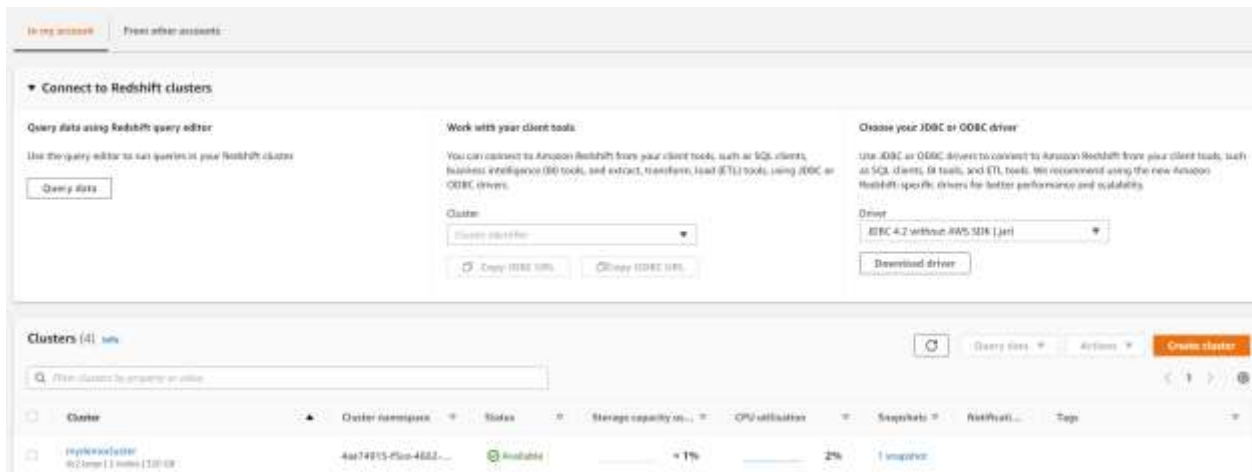
	Name	Security group ID	Security group name	VPC ID	Description	Owner	Inbound rules count	Outbound rules co...
	-	sg-018516a823332c4e0	WFOpityTeam-WFOSe...	vpc-07f63c21a	Enable HTTP access o...	900001003005	2 Permission entries	1 Permission entry
	-	sg-0773565407961c4e9	default	vpc-0849031283e41ba03	Default VPC security gr...	900001003005	1 Permission entry	1 Permission entry
	-	sg-047f5c6a0b0e4da	ec2-instance	vpc-07f63c21a	EC2 Instance for SQA Cl...	900001003005	0 Permission entries	1 Permission entry
	-	sg-048539511a6d127	launch-wizard-5	vpc-07f63c21a	launch-wizard-5 creat...	900001003005	1 Permission entry	1 Permission entry
	-	sg-0602823112e4b6d7	Redshift-WebServer...	vpc-07f63c21a	Enable HTTP access o...	900001003005	2 Permission entries	1 Permission entry
	-	sg-0639f63923133208	Hyperledger	vpc-07f63c21a	This is for Hyperledger...	900001003005	1 Permission entry	2 Permission entries
	-	sg-06a6f75d0c7e4d99	launch-wizard-1	vpc-07f63c21a	launch-wizard-1 creat...	900001003005	0 Permission entries	1 Permission entry
	-	sg-0729442d73d89f91	Redshift-Certified by...	vpc-07f63c21a	This security group en...	900001003005	1 Permission entries	1 Permission entry
	-	sg-073998129d7636861	launch-wizard-6	vpc-07f63c21a	launch-wizard-6 creat...	900001003005	1 Permission entry	1 Permission entry
	-	sg-076a58a096a3d6e6	launch-wizard-3	vpc-07f63c21a	launch-wizard-3 creat...	900001003005	1 Permission entry	1 Permission entry
	-	sg-0193b4733a146e0c	Redshift	vpc-07f63c21a	Redshift	900001003005	3 Permission entries	1 Permission entry

**We have created the Security Group with the proper port for Redshift.**

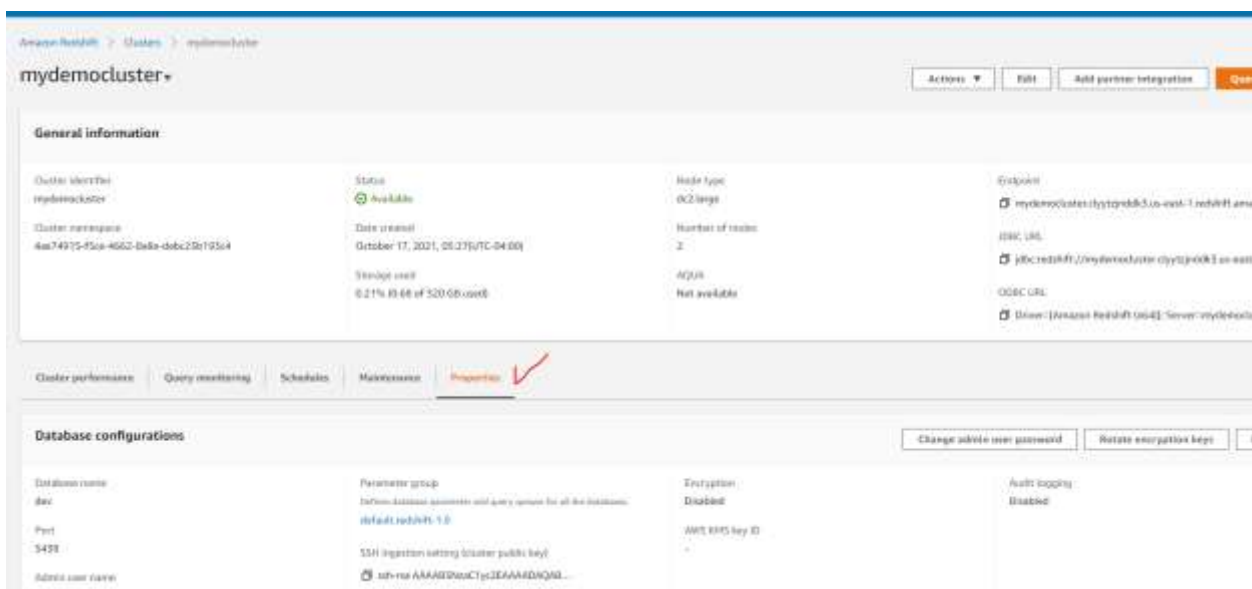
**Now we need to go to our cluster and associate the newly created Security Group with the Redshift Cluster before we can access the cluster remotely from SQL Workbench**

Go back to the Redshift Cluster Menu

Select the Cluster that you will configure. In this case I am using mydemocluster



Select Properties



Select Edit

Cluster performance | Query monitoring | Schedules | Maintenance | **Properties**

---

**Database configurations** Change admin user password Rotate encryption keys Edit ▼

Database name db1	Parameter group Default: default:postgres11.5	Encryption Default: Disabled	Audit logging Default: Disabled
Port 5432	SSL (optional setting for cluster public key)	AWS KMS key ID *	
Admin user name postgres	Default: postgres		

---

**Network and security settings** ✓

Virtual private cloud (VPC) vpc-0760227a	Availability Zone us-east-1a	VPC security group sg-0760227a	Publicly accessible Default: Disabled
Subnet default	Enhanced VPC routing Default: Disabled		
Endpoint URL -			

Select the VPC Security Group. (Note that there is default) We will select created security group for redshift.

## Edit network and security

### ▼ Network and security

#### Virtual private cloud (VPC)

This VPC defines the virtual networking environment for this cluster.

vpc-0762c27a

#### VPC security groups

This VPC security group defines which subnets and IP ranges the cluster can use in the VPC.

Choose one or more security groups ▼

default ✕  
sg-c1bd34ca

#### Cluster subnet group

Choose the Amazon Redshift subnet group to launch the cluster in.

default

#### Availability Zone

Specify the Availability Zone that you want the cluster to be created in. Otherwise, Amazon Redshift chooses an Availability Zone for you.

No preference

#### Enhanced VPC routing

Enabling this option forces network traffic between your cluster and data repositories through a VPC, instead of the internet. [Learn more](#)

- ☒ Disabled  
☐ Enabled

Cancel

Save changes

Select the security group you created earlier.

## ▼ Network and security

### Virtual private cloud (VPC)

This VPC defines the virtual networking environment for this cluster.

vpc-0762c27a

### VPC security groups

This VPC security group defines which subnets and IP ranges the cluster can use in the VPC.

Choose one or more security groups

✓ redshiftaccess  
sg-0419fccca8e3ec46c

default  
sg-c1bd34ca

### Cluster subnet group

Choose the Amazon Redshift subnet group to launch the cluster in.

default

### Availability Zone

Specify the Availability Zone that you want the cluster to be created in. Otherwise, Amazon Redshift chooses an Availability Zone for you.

No preference

### Enhanced VPC routing

Enabling this option forces network traffic between your cluster and data repositories through a VPC, instead of the internet. [Learn more](#)

☒ Disabled

☐ Enabled

Cancel

Save changes

Note it is a best practice to have your network team assign the appropriate subnets for access especially from on premises. In this scenario we will not focus on additional networking and security since it is out of the scope and time allocation for the course.

## Edit cluster mydemocluster

### Cluster configuration

#### Cluster identifier

This is the unique key that identifies a cluster.

mydemocluster

The identifier must be from 1-63 characters. Valid characters are a-z (lowercase only) and - (hyphen).

### ▼ Backup

Automated snapshots are periodic backups of the cluster.

#### Snapshot retention

How long do you want to retain your snapshot?

1 day ▼

The retention period must be 0-35 days.

#### Cluster relocation

Enable the ability to relocate your cluster in another Availability Zone. After you enable relocation, you use the VPC endpoint of the cluster to determine the cluster IP address, instead of the leader node IP address. You can find the VPC endpoint in the Network and security section of the cluster details page. [Learn more](#) 

- ☒ No  
☐ Enable

### ► Network and security

### ► Maintenance