

Introduction to Amazon Redshift

https://amazon.qwiklabs.com/focuses/57196?catalog_rank=%7B%22rank%22%3A6%2C%22num_filters%22%3A1%2C%22has_search%22%3Afalse%7D&parent=catalog

Start Lab

[Open Console](#)

Task 1: Launch an Amazon Redshift Cluster



Cluster configuration

Cluster identifier

This is the unique key that identifies a cluster.

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

Choose the size of the cluster

☒ I'll choose

☐ Help me choose

Node type [Info](#)

Choose a node type that meets your CPU, RAM, storage capacity, and drive type requirements.

Number of nodes

Enter the number of nodes that you need.

Range (1-32)

Database configurations

Admin user name

Enter a login ID for the admin user of your DB instance.

The name must be 1-128 alphanumeric characters, and it can't be a [reserved word](#).

☐ Auto generate password

Amazon Redshift can generate a password for you, or you can specify your own password.

Admin user password

Must be 8-64 characters long. Must contain at least one uppercase letter, one lowercase letter and one number. Can be any printable ASCII character except "/", "", or "@".

☒ Show password

Associated IAM roles (1) [Info](#)

Create, associate, or remove an IAM role. You can associate up to 50 IAM roles. You can also choose an IAM role and set it as the default for this cluster.

[Set default ▼](#)[Manage IAM roles ▼](#)**1**

<input type="checkbox"/>	IAM roles	<input type="text" value="▼"/>	Status <input type="text" value="▼"/>	Role type <input type="text" value="▼"/>
<input type="checkbox"/>	Redshift-Role		Not applied	--

▼ Network and security [Info](#)

Virtual private cloud (VPC)

This VPC defines the virtual networking environment for this cluster.

vpc-052cd426c5f5c4535



You can't change the VPC associated with this cluster after the cluster has been created. [Learn more](#)



VPC security groups

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



Cluster subnet group [Info](#)

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



Availability Zone

Specify the Availability Zone to create the cluster in. Otherwise, Amazon Redshift chooses an Availability Zone for you.



Enhanced VPC routing

▼ Database configurations [Info](#)

Database name

Specify a database name to create an additional database.

The name must be 1-64 alphanumeric characters (lowercase only), and it can't be a [reserved word](#) .

Database port

Port number where the database accepts inbound connections. The default port is 5439. You can change the port, if needed.

The port must be numeric and between 1150-65535. We recommend that you choose a port number in the ranges 5431-5455 or 8191-8215 to use disaster recovery, Multi-AZ, and cross-VPC endpoint.

Parameter groups

Defines database parameter and query queues for all the databases.

Encryption

Amazon Redshift is creating lab

📘 Try new Amazon Redshift features in preview.

Create a cluster with preview features. Production use of the cluster is not supported. Use this cluster for testing only.

Create preview cluster

Amazon Redshift > Clusters

In my account

From other accounts

Amazon Redshift > Clusters > lab

lab

Actions ▼

Edit

Add partner integration

Query data ▼

General information



Cluster identifier

lab

Status

⏸ Modifying

Node type

dc2.large

Endpoint

-

Cluster namespace

4e006911-dc5d-4113-b987-c81684046339

Date created

-

Number of nodes

2

JDBC URL

-

Cluster configuration

Production

Storage used

-

ODBC URL

-

Multi-AZ

No

Task 2: Use the Redshift Query Editor to Communicate with your Redshift Cluster

Connect to database



Connection

Select a recent database connection or create a new database connection.

- ☐ Use a recent connection
- ☒ Create a new connection

Authentication

- ☒ Temporary credentials
Use the GetClusterCredentials IAM permission and your database user to generate temporary access credentials. [Learn more](#)
- ☐ AWS Secrets Manager
Use a stored secret to authenticate access. [Learn more](#)

Cluster

lab (Available) ▼

Database name

labdb

Database user

User name authorized to access your database.

master

Cancel

Connect

Task 3: Create a Table

Resources [Info](#)

Select database [Info](#)

To view schemas, select a database.

labdb

Select schema [Info](#)

To view tables, select a schema.

public

Filter tables

No resources

No resources to display

Status Connected

database labdb user master

Change connection

Query 1

↶

↷

@

≡

/*

```
1 CREATE TABLE users (  
2   userid INTEGER NOT NULL,  
3   username CHAR(8),  
4   firstname VARCHAR(30),  
5   lastname VARCHAR(30),  
6   city VARCHAR(30),  
7   state CHAR(2),  
8   email VARCHAR(100),  
9   phone CHAR(14),  
10  likesports BOOLEAN,  
11  liketheatre BOOLEAN,  
12  likeconcerts BOOLEAN,  
13  likejazz BOOLEAN,  
14  likeclassical BOOLEAN
```

Run

Save

Schedule

Clear

Send feedback

Query results

Table details

Query

Execution

Data

Visualize

Completed, started on May 10, 2023 at 17:36:47

ELAPSED TIME: 00 m 03 s

Task 4: Load Sample Data from Amazon S3

✓ Query 1

+

▼

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```
1 COPY users FROM 's3://awssampleduswest2/ticket/allusers_pipe.txt'
2 CREDENTIALS 'aws_iam_role=arn:aws:iam::823702383805:role/Redshift-Role'
3 DELIMITER '|';
```

Run Save Schedule Clear

Send feedback

Query results

Table details

Query 253 [🔗](#)

Execution Data Visualize

✓ Completed, started on May 10, 2023 at 17:39:03
ELAPSED TIME: 00 m 09 s

Task 5: Query Data

Now that you have data in your Redshift database you can query the data using SQL select

1

```
SELECT COUNT(*) FROM users;
```

Run

Save

Schedule

Clear

Send feedback

Query results

Table details

Query 273

Execution

Data

Visualize

Completed, started on May 10, 2023 at 17:39:48

ELAPSED TIME: 00 m 02 s

Rows returned (1)

Export

Search rows

< 1 >

count

49990

1

2

3

4

```
SELECT userid, firstname, lastname, city, state
FROM users
WHERE likesports AND NOT likeopera AND state = 'OH'
ORDER BY firstname;
```

Run

Save

Schedule

Clear

Send feedback

Query results

Table details

Query 282

Execution

Data

Visualize

Completed, started on May 10, 2023 at 17:40:20

ELAPSED TIME: 00 m 02 s

Rows returned (18)

Export

Search rows

< 1 2 >

userid	firstname	lastname	city	state
4343	Abel	Mullins	Commerce	OH
39049	Abraham	Donaldson	Hampton	OH

Status

Connected

databaselabdbusermaster

Change connection

Query 1

+

↶↷@≡/*📄🔍

1SELECT

2city,

3COUNT(*) AS count

4FROM users

5WHERE likejazz

6GROUP BY city

7ORDER BY count DESC

8LIMIT 10;

Run

Cancel

Save

Schedule

Clear

Send feedback

Rows returned (10)

Export

Search rows

< 1 > ⚙

city	count
Dover	33
Charleston	30
Hartford	28
Concord	27
Springfield	26
Richmond	24
Jackson	23
Orangeburg	23
Aliquippa	23
Columbus	23