

# Launching a Redshift Cluster in the AWS Console

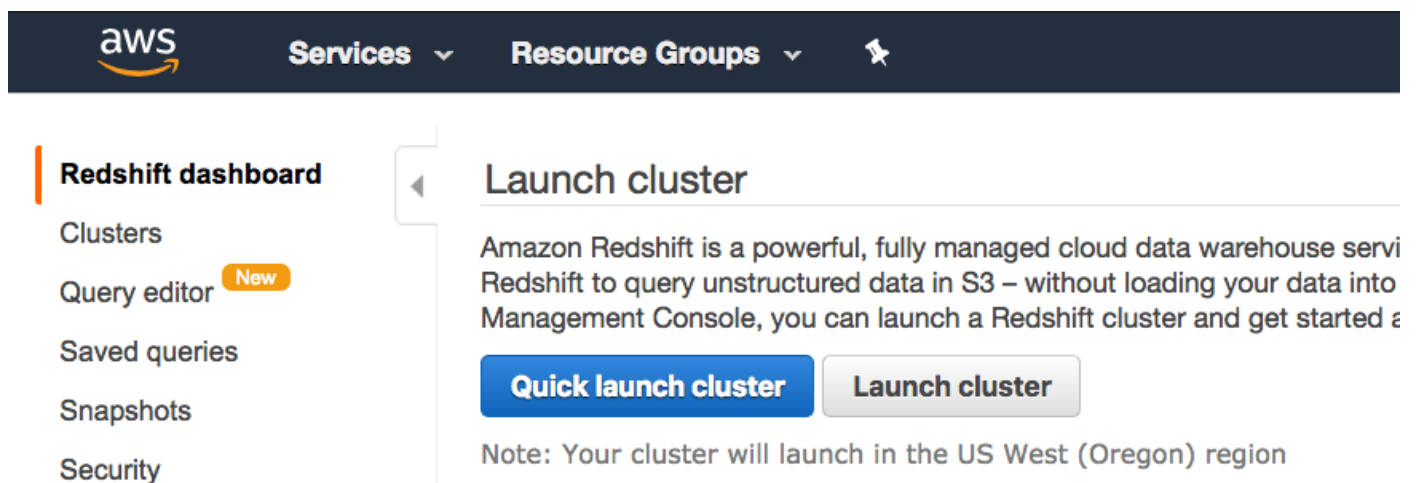
- Follow the instructions below to create a Redshift cluster
- Use the query editor to create a table and insert data
- Delete the cluster

Note: The steps below were introduced in lesson 2. You can use the IAM role and security group created in the last lesson.

## Launch a Redshift Cluster

**WARNING:** The cluster that you are about to launch will be live, and you will be charged the standard Amazon Redshift usage fees for the cluster until you delete it. **Make sure to delete your cluster each time you're finished working to avoid large, unexpected costs.** Instructions on deleting your cluster are included on the last page. You can always launch a new cluster, so don't leave your Redshift cluster running overnight or throughout the week if you don't need to.

1. Sign in to the AWS Management Console and open the Amazon Redshift console at <https://console.aws.amazon.com/redshift/>.
2. On the Amazon Redshift Dashboard, choose **Launch cluster**.



3. On the Cluster details page, enter the following values and then choose Continue:
  - **Cluster identifier:** Enter `redshift-cluster`.
  - **Database name:** Enter `dev`.
  - **Database port:** Enter `5439`.
  - **Master user name:** Enter `awsuser`.

- **Master user password** and **Confirm password**: Enter a password for the master user account.

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Provide the details of your cluster. Fields marked with \* are required.

**Cluster identifier\***

This is the unique key that identifies a cluster. This parameter is stored as a lowercase string. (e.g. my-dw-instance)

**Database name**

Optional. A default database named dev is created for the cluster. Optionally, specify a custom database name (e.g. mydb) to create an additional database.

**Database port\***

Port number on which the database accepts connections.

**Master user name\***

Name of master user for your cluster. (e.g. awsuser)

**Master user password\***

Password must contain 8 to 64 printable ASCII characters excluding: /, ", ', \, and @. It must contain 1 uppercase letter, 1 lowercase letter, and 1 number.

**Confirm password\***

Confirm master user password

Cancel

Continue

4. On the Node Configuration page, accept the default values and choose **Continue**.

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CLUSTER DETAILS   **NODE CONFIGURATION**   ADDITIONAL CONFIGURATION   REVIEW

Choose a number of nodes and node type below. Number of Compute Nodes is required for multi-node clusters.

... The ds2 and dc2 node types replace the ds1 and dc1 node types, respectively. The newer ds2 and dc2 node types provide higher performance than ds1 and dc1 at no extra cost. [Learn more.](#)

**Node type**

Specifies the compute, memory, storage, and I/O capacity of the cluster's nodes.

**CPU** 7 EC2 Compute Units (2 virtual cores) per node

**Memory** 15.25 GiB per node

**Storage** 160GB SSD storage per node

**I/O performance** Moderate

**Cluster type**

**Number of compute nodes\***

Single Node clusters consist of a single node which performs both leader and compute functions.

**Maximum** 1

**Minimum** 1

Cancel

Previous

Continue

5. On the Additional Configuration page, enter the following values:

- **VPC security groups:** redshift\_security\_group
- **Available IAM roles:** myRedshiftRole

Choose **Continue**.

**Publicly accessible** ☒ Yes ☐ No Select Yes if you want the cluster to be accessible from the public internet. Select No if you want it to be accessible only from within your private VPC network.

**Choose a public IP address** ☐ Yes ☒ No Select Yes if you want to select your own public IP address from a list of elastic IP (EIP) addresses that are already configured for your cluster's VPC. Select No if you want Amazon Redshift to provide an EIP for you instead.

**Enhanced VPC Routing** ☐ Yes ☒ No Select Yes if you want to enable Enhanced VPC Routing. [Learn more](#)

**Availability zone** No Preference The EC2 Availability Zone that the cluster will be created in.

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Associate your cluster with one or more security groups.

**VPC security groups** default (sg-7bdc9007) redshift\_security\_group (sg-0eafe91b9bd584f51) List of VPC security groups to associate with this cluster.

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Optionally, create a basic alarm for this cluster.

**Create CloudWatch Alarm** ☐ Yes ☒ No Create a CloudWatch alarm to monitor the disk usage of your cluster.

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Optionally, select your maintenance track for this cluster.

**Maintenance Track** ☒ Current ☐ Trailing Select Current to apply the latest certified maintenance release including features and bug-fixes. Select Trailing to apply the previously certified maintenance release.

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Optionally, associate up to 10 IAM roles with this cluster.

**Available IAM roles** Choose a role(s)

**myRedshiftRole**   
arn:aws:iam::674912980148:role/myRedshiftRole

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**Cancel** **Previous** **Continue**

6. Review your Cluster configuration and choose **Launch cluster**.

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CLUSTER DETAILS   NODE CONFIGURATION   ADDITIONAL CONFIGURATION   REVIEW

You are about to launch a cluster with following the following specifications:

**Cluster properties**

These attributes specify the name of your cluster, what type of virtual hardware it will run on, how many nodes it will contain, and the availability zone in which it will be located.

**Cluster identifier:** redshift-cluster

**Node type:** dc2.large

**Number of compute nodes:** 1 (leader and compute run on a single node)

**Availability zone:** No preference

**Database configuration**

These properties specify the database name, port, and username you will use to connect to the database. The parameter group contains configuration values used by the database.

**Database name:** dev

**Database port:** 5439

**Master user name:** awsuser

**Cluster parameter group:** default.redshift-1.0

**Security, access, and encryption**

These settings control whether your cluster will be created in an existing VPC to allow for simpler integration with other AWS Services, and the security groups which define access rules to your cluster.

**Virtual private cloud:** vpc-3924fa41

**Cluster subnet group:**

**Publicly accessible:** Yes

**Elastic IP:** Not used

**VPC security groups** redshift\_security\_group (sg-0eafe91b9bd584f51)

**Enhanced VPC Routing:** No

**Encrypt database:** No

**CloudWatch alarms**

CloudWatch alarms are used to notify if metrics for your cluster are within a certain threshold. All recipients under the SNS topic specified for your alarm will receive notifications once an alarm is triggered.

Basic alarms will not be created for this cluster

Cancel

Previous

Launch cluster

7. A confirmation page will appear and the cluster will take a few minutes to finish. Choose **Clusters** in the left navigation pane to return to the list of clusters.

The screenshot shows the AWS console interface. At the top, there's a navigation bar with the AWS logo, 'Services' dropdown, 'Resource Groups' dropdown, and a search icon. Below this is a left-hand navigation pane with links: 'Redshift dashboard', 'Clusters' (highlighted in orange), 'Query editor' (with a 'New' badge), 'Saved queries', 'Snapshots', and 'Security'. To the right of the navigation pane, a green-bordered box contains a confirmation message: 'Cluster redshift-cluster-1 is being created'. Below this message, it states: 'You will start accruing charges as soon as your cluster is available. Applicable charges: The on-demand hourly rate for this cluster will be \$0.00 per hour. Additional nodes will be billed at the same rate. For more information, see Amazon Redshift Pricing and Billing.' The text is partially cut off in the image.

- On the Clusters page, look at the cluster that you just launched and review the **Cluster Status** information. Make sure that the **Cluster Status** is **available** and the **Database Health** is **healthy** before you try to connect to the database later. You can expect this to take 5-10 minutes.

Quick launch cluster	Launch cluster	Cluster ▾	Database ▾	Backup ▾	Manage Tags	Manage IAM roles	↻ ?
<input type="checkbox"/>	Cluster	Cluster Status	DB Health ▾	Release Status ▾	In Maintenance ▾	Recent Events	Config timeline
<input type="checkbox"/>	redshift-cluster-1	creating	unknown	Not found	unknown	8	<a href="#">View timeline</a>

Quick launch cluster	Launch cluster	Cluster ▾	Database ▾	Backup ▾	Manage Tags	Manage IAM roles	↻ ?
<input type="checkbox"/>	Cluster	Cluster Status	DB Health ▾	Release Status ▾	In Maintenance ▾	Recent Events	Config timeline
<input type="checkbox"/>	redshift-cluster-1	available	healthy	Up to date	no	9	<a href="#">View timeline</a>

## Delete a Redshift Cluster

Make sure to delete your cluster each time you're finished working to avoid large, unexpected costs. You can always launch a new cluster, so don't leave it running overnight or throughout the week if you don't need to.

- On the **Clusters** page of your Amazon Redshift console, click on the box next to your cluster to select it, and then click on **Cluster > Delete cluster**.

The screenshot shows the Amazon Redshift console interface. At the top, there are buttons for 'Quick launch cluster', 'Launch cluster', and a 'Cluster' dropdown menu. Below this is a table of clusters. The first cluster, 'redshift-cluster-1', is selected. A context menu is open over the cluster, showing options: 'Query cluster', 'Modify cluster', 'Resize cluster', 'Delete cluster' (highlighted in orange), 'Reboot cluster', and 'Upgrade release version'. Below the table, the 'Endpoint' for the cluster is shown as 'redshift-cluster-1.cro5lqt0mnmn.us'. Under 'Cluster Properties', the 'Cluster Name' is 'redshift-cluster-1', the 'Node Type' is 'dc2.large', and the 'Nodes' count is '2'.

- You can choose **No** for **Create snapshot**, check the box that you acknowledge this, and then choose **Delete**.

## Delete Cluster

Cluster redshift-cluster-1

Create snapshot ☐ Yes ☒ No

⚠ Automated snapshots for this cluster will be deleted. All changes since the last manual snapshot will be permanently lost. To prevent data loss, copy your last automated snapshot to a manual snapshot.

☒ I acknowledge that when I delete this cluster, data changes since the most recent manual snapshot will be lost.

Cancel Delete

3. Your cluster will change its status to **deleting**, and then disappear from your Cluster list once it's finished deleting. You'll no longer be charged for this cluster.

Quick launch cluster	Launch cluster	Cluster ▾	Database ▾	Backup ▾	Manage Tags	Manage IAM roles	↻ ?
<input type="checkbox"/>	Cluster	Cluster Status	DB Health ▾	Release Status ▾	In Maintenance ▾	Recent Events	Config timeline
<input checked="" type="checkbox"/>	redshift-cluster-1	deleting	healthy	Up to date	no	9	<a href="#">View timeline</a>