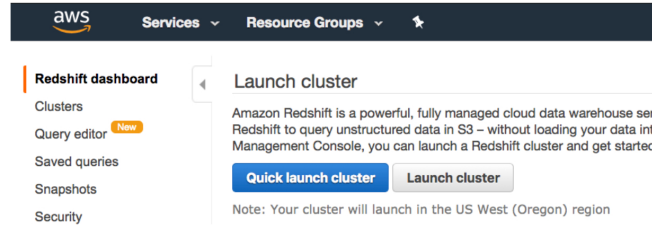


Launch a Redshift Cluster

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 for yourself.** Instructions on deleting your cluster are included on the last page in this lesson. 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.

Please note: We **strongly advise** you to keep these passwords closely guarded, including not putting them in your GitHub public repo, etc.

Launch your Amazon Redshift cluster - Advanced settings | [Switch to quick launch](#)

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

Cluster identifier*	<input type="text" value="redshift-cluster"/>	This is the unique key that identifies a cluster. This parameter is stored as a lowercase string. (e.g. my-dw-instance)
Database name	<input type="text" value="dev"/>	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*	<input type="text" value="5439"/>	Port number on which the database accepts connections.
Master user name*	<input type="text" value="awsuser"/>	Name of master user for your cluster. (e.g. awsuser)
Master user password*	<input type="password" value="*****"/>	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*	<input type="password" value="*****"/>	Confirm master user password

[Cancel](#) [Continue](#)

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

Launch your Amazon Redshift cluster - Advanced settings | [Switch to quick launch](#)

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	<input type="text" value="dc2.large"/>	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	<input type="text" value="Single Node"/>	
Number of compute nodes*	<input type="text" value="1"/>	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	<input checked="" type="radio"/> Yes <input type="radio"/> 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	<input checked="" type="radio"/> Yes <input type="radio"/> 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	<input checked="" type="radio"/> Yes <input type="radio"/> No	Select Yes if you want to enable Enhanced VPC Routing. Learn more
Availability zone	<input type="text" value="No Preference"/>	The EC2 Availability Zone that the cluster will be created in.

Associate your cluster with one or more security groups.

VPC security groups List of VPC security groups to associate with this cluster.

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.

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.

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

Available IAM roles

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

Launch your Amazon Redshift cluster - Advanced settings | [Switch to quick launch](#)

CLUSTER DETAILS NODE CONFIGURATION ADDITIONAL CONFIGURATION REVIEW

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

Cluster properties Database configuration

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

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 CloudWatch alarms

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 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

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.

aws Services Resource Groups

Redshift dashboard

Clusters

Query editor

Saved queries

Snapshots

Security

Cluster redshift-cluster-1 is being created

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](#).

8. 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.

Cluster	Cluster Status	DB Health	Release Status	In Maintenance	Recent Events	Config timeline
redshift-cluster-1	creating	unknown	Not found	unknown	0	View timeline

Cluster	Cluster Status	DB Health	Release Status	In Maintenance	Recent Events	Config timeline
redshift-cluster-1	available	healthy	Up to date	no	0	View timeline

NEXT