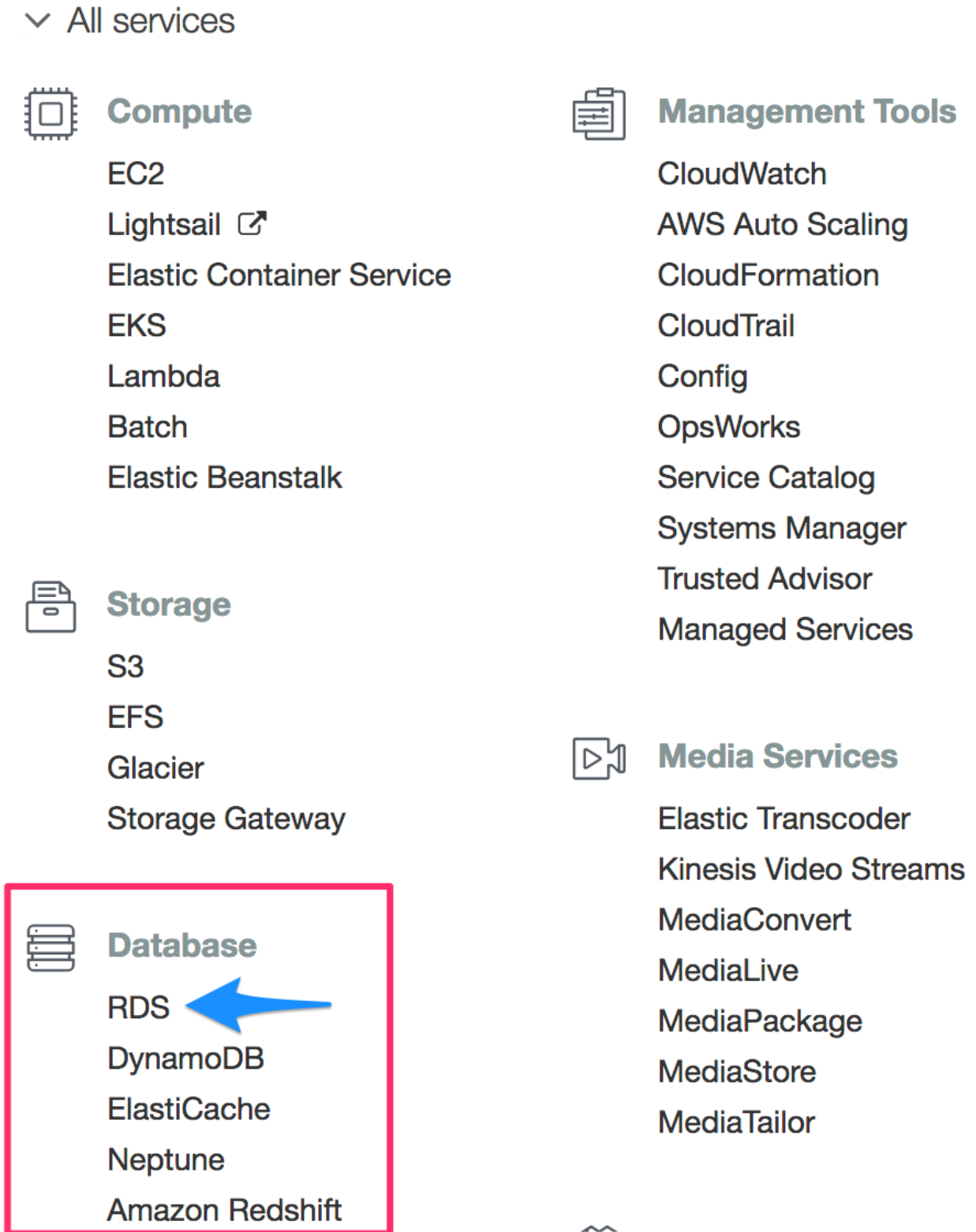


# Creating a PostgreSQL Database in AWS RDS

- Log in to the AWS Management Console and navigate to the RDS section under **All services** find **Database**, then select **RDS**.



- Click **Create database** from the **Create database** section to the right. This button will take you to the **Engine options** page, which brings up a menu of different relational databases.


- **Note:** AWS may have a different screen than the one pictured below. If this is the first time using the service, the orange **Create database** will still be on the right.


The screenshot shows the Amazon RDS console interface. On the left is a navigation sidebar with the following links: **Dashboard** (highlighted in orange), Databases, Query Editor, Performance Insights, Snapshots, Automated backups, Reserved instances, Subnet groups, Parameter groups, Option groups, Events, Event subscriptions, and Recommendations. The main content area is titled 'Amazon RDS' with a close button (X). It features a blue information box for 'Amazon Aurora' with a 'Create database' button and a link to 'Restore Aurora DB cluster from S3'. Below this is a 'Resources' section showing usage for DB Instances (0/40), Allocated storage (0 bytes/100.00 TB), Reserved instances (0/40), Snapshots (161), Manual (0/100), Automated (0), Recent events (3), and Event subscriptions (0/20). At the bottom is a 'Create database' section with two buttons: 'Restore from S3' and 'Create database' (highlighted with a red box). A note at the bottom states: 'Note: your DB instances will launch in the US East (N. Virginia) region.'


**Note:** There may be an option to create a database with Amazon Aurora, which is a paid database. We will not be using this in today's lesson.


- **IMPORTANT:** Check the box next to **Only enable options eligible for RDS Free Usage Tier** at the bottom of the menu.
- Select **PostgreSQL** and click **Next**.


### Engine options


☐ Amazon Aurora  


☐ MySQL  


☐ MariaDB  


☒ PostgreSQL  


☐ Oracle  


☐ Microsoft SQL Server  


#### PostgreSQL

PostgreSQL is a powerful, open-source object-relational database system with a strong reputation of reliability, stability, and correctness.

- High reliability and stability in a variety of workloads.
- Advanced features to perform in high-volume environments.
- Vibrant open-source community that releases new features multiple times per year.
- Supports multiple extensions that add even more functionality to the database.
- The most Oracle-compatible open-source database.

[Click Here First!](#)

☒ Only enable options eligible for RDS Free Usage Tier [Info](#)
Cancel Next

- Keep the default settings for the instance specifications.
- Fill out the fields under Settings. Use **myPostgresDB** as the database instance identifier and **root** as the master username.
  - While you can name the database instance identifier and master username anything you like, we recommend sticking to these settings during today's lesson for consistency.
- Enter a password and be sure to record it somewhere. You will need your password to connect to your database from pgAdmin. Your other RDS settings will be accessible in the future, but the password will not. Click **Next** to continue.

## Settings

**DB instance identifier** [Info](#)  
Specify a name that is unique for all DB instances owned by your AWS account in the current region.

myPostgresDB

DB instance identifier is case insensitive, but stored as all lower-case, as in "mydbinstance". Must contain from 1 to 63 alphanumeric characters or hyphens (1 to 15 for SQL Server). First character must be a letter. Cannot end with a hyphen or contain two consecutive hyphens.

**Master username** [Info](#)  
Specify an alphanumeric string that defines the login ID for the master user.

root

Master Username must start with a letter. Must contain 1 to 63 alphanumeric characters.

**Master password** [Info](#) **Confirm password** [Info](#)






.....

Master Password must be at least eight characters long, as in "mypassword". Can be any printable ASCII character except "/", "", or "@".

- Under **Network & Security** select **Yes** under the **Public accessibility** option.
  - This allows connections from outside sources like pgAdmin. A password will still be required.

## Network & Security

**Virtual Private Cloud (VPC)** [Info](#)  
VPC defines the virtual networking environment for this DB instance.

Default VPC     ▼ 

Only VPCs with a corresponding DB subnet group are listed.

**Subnet group** [Info](#)  
DB subnet group that defines which subnets and IP ranges the DB instance can use in the VPC you selected.

default ▼

**Public accessibility** [Info](#)

☒ **Yes**  
EC2 instances and devices outside of the VPC hosting the DB instance will connect to the DB instances. You must also select one or more VPC security groups that specify which EC2 instances and devices can connect to the DB instance.

☐ **No**  
DB instance will not have a public IP address assigned. No EC2 instance or devices outside of the VPC will be able to connect.

**Availability zone** [Info](#)

No preference ▼

**VPC security groups**  
Security groups have rules authorizing connections from all the EC2 instances and devices that need to access the DB instance.

☒ **Create new VPC security group**

☐ **Choose existing VPC security groups**

- Under **Database Options**, make the database name **my\_data\_class\_db**.

- Again, you can name the database anything you like, but during today's lesson, use this name for the sake of consistency. Feel free to use any name when creating RDS databases in the future. Keep the default settings in all other fields.

### Database options

Database name [Info](#)

If you do not specify a database name, Amazon RDS does not create a database.

Port [Info](#)

TCP/IP port the DB instance will use for application connections.

DB parameter group [Info](#)

Option group [Info](#)

IAM DB authentication [Info](#)

☐ Enable IAM DB authentication  
Manage your database user credentials through AWS IAM users and roles.

☒ Disable

- Click **Create Database** followed by **View DB Instance details** to navigate to the instance console page. AWS will take up to 15 minutes to create a database (but probably less time than that).
- You have now created a PostgreSQL database on AWS's RDS cloud platform!