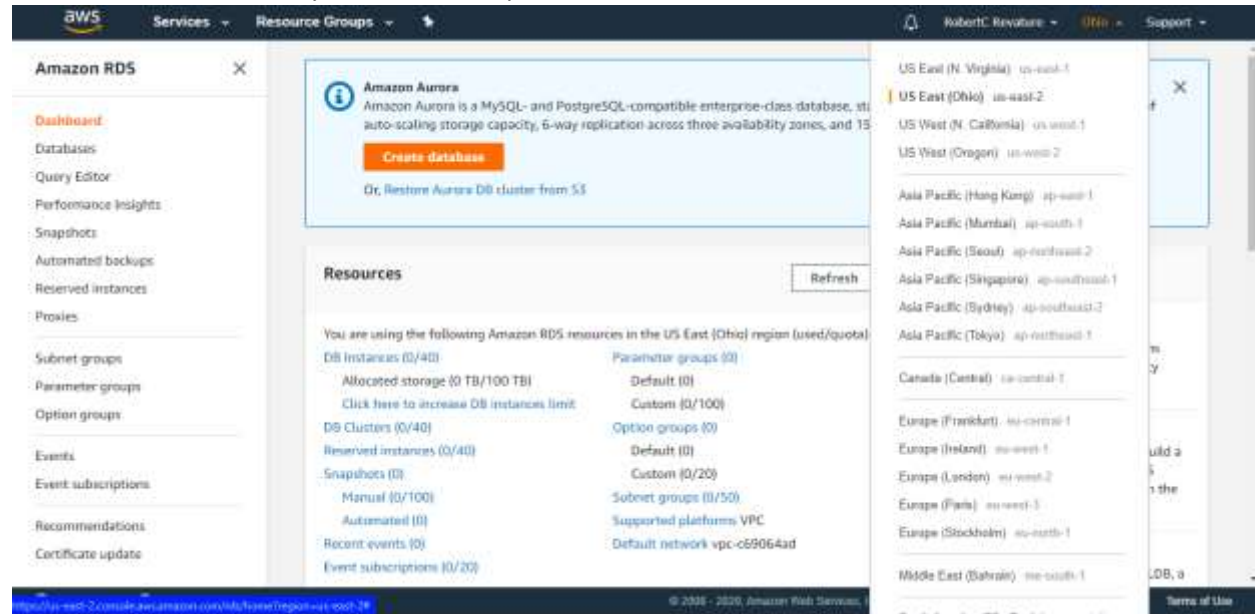
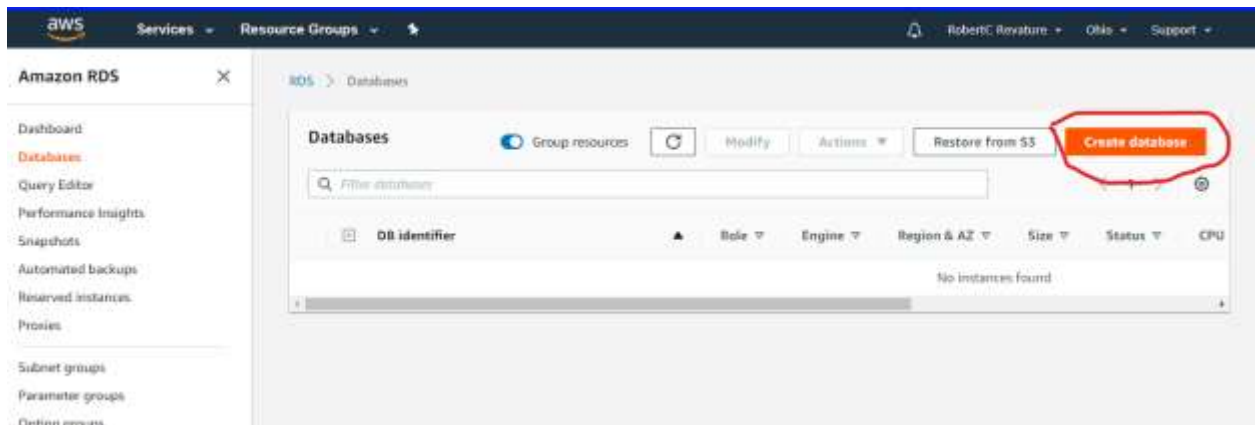


## Make a PostgreSQL DB instance on AWS

1. Go to <http://aws.amazon.com>
2. Sign into the console and go to services > RDS
3. Select the region to use for the db.
  - a. Select the one closest to you for the best performance.



4. Select DB Instances
5. Select Create Database



6. In the configurations, change the following:


### Choose a database creation method [Info](#)


☒ **Standard Create**  
You set all of the configuration options, including ones for availability, security, backups, and maintenance.


☐ **Easy Create**  
Use recommended best-practice configurations. Some configuration options can be changed after the database is created.


### Engine options


Engine type [Info](#)


☐ Amazon Aurora  


☐ MySQL  


☐ MariaDB  


☒ PostgreSQL  


☐ Oracle  


☐ Microsoft SQL Server  


a. Click Standard Create

b. Click the icon for PostgreSQL

c. Select the latest version

Version [Info](#)

PostgreSQL 11.5-R1 ▼

[i](#) If you want to create PostgreSQL 12 in the Preview environment, click [here](#).

### Templates

Choose a sample template to meet your use case.

☐ **Production**  
Use defaults for high availability and fast, consistent performance.

☐ **Dev/Test**  
This instance is intended for development use outside of a production environment.

☒ **Free tier**  
Use RDS Free Tier to develop new applications, test existing applications, or gain hands-on experience with Amazon RDS. [Info](#)

- d. Select Free Tier
- e. For DB instance identifier, type whatever name you want the db to have

- f. Under credentials settings:
  - i. Put in whatever username you want to sign into the db with
  - ii. Type in a master password
    - 1. Remember this, you can only reset it, never recover it
  - iii. Type the same in confirm password

### Settings

#### DB instance identifier [Info](#)

Type a name for your DB instance. The name must be unique cross all DB instances owned by your AWS account in the current Region.

The DB instance identifier is case-insensitive, but is stored as all lowercase (as in "mydbinstance"). Constraints: 1 to 60 alphanumeric characters or hyphens (1 to 15 for SQL Server). First character must be a letter. Can't contain two consecutive hyphens. Can't end with a hyphen.

#### ▼ Credentials Settings

#### Master username [Info](#)

Type a login ID for the master user of your DB instance.

1 to 16 alphanumeric characters. First character must be a letter

☐ Auto generate a password

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

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


Constraints: At least 8 printable ASCII characters. Can't contain any of the following: / (slash), " (double quote) and @ (at sign)

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

- g. Under db instance size, you can mainly leave this alone, make sure you stay under the free tier
- h. Leave storage section alone.

- i. For connectivity:


### Connectivity



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

Default VPC (vpc-c69064ad) ▼

Only VPCs with a corresponding DB subnet group are listed.

 After a database is created, you can't change the VPC selection.

▼ **Additional connectivity configuration**

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

default ▼

Publicly accessible [Info](#)

☒ **Yes**  
Amazon EC2 instances and devices outside the VPC can connect to your database. Choose one or more VPC security groups that specify which EC2 instances and devices inside the VPC can connect to the database.

☐ **No**  
RDS will not assign a public IP address to the database. Only Amazon EC2 instances and devices inside the VPC can connect to your database.

- i. Use default vpc
  - ii. Select yes for public accessibility
  - iii. Use default security group
  - iv. Leave the rest alone
- j. Leave database authentication alone at password authentication

- k. Under additional configuration:

▼ **Additional configuration**

Database options, backup disabled, backtrack disabled, Performance Insights disabled, Enhanced Monitoring disabled, maintenance, CloudWatch Logs, delete protection disabled

### Database options

Initial database name [Info](#)

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

DB parameter group [Info](#)

Option group [Info](#)

### Backup

Creates a point in time snapshot of your database

- ☐ **Enable automatic backups**  
Enabling backups will automatically create backups of your database during a certain time window.

Performance Insights [Info](#)

- ☐ **Enable Performance Insights**

- i. Deselect:
1. Enable automatic backups

## 2. Enable performance insights

### Monitoring

- ☐ **Enable Enhanced monitoring**  
Enabling Enhanced monitoring metrics are useful when you want to see how different processes or threads use the CPU

### Log exports


Select the log types to publish to Amazon CloudWatch Logs

- ☐ Postgresql log  
☐ Upgrade log

### IAM role

The following service-linked role is used for publishing logs to CloudWatch Logs.

### RDS Service Linked Role

-  Ensure that General, Slow Query, and Audit Logs are turned on. Error logs are enabled by default. [Learn more](#)

### Maintenance

Auto minor version upgrade [Info](#)

- ☒ **Enable auto minor version upgrade**  
Enabling auto minor version upgrade will automatically upgrade to new minor versions as they are released. The automatic upgrades occur during the maintenance window for the database.

## 3. Enable performance monitoring

## 4. all log exports

### Maintenance

Auto minor version upgrade [Info](#)

- ☒ **Enable auto minor version upgrade**  
Enabling auto minor version upgrade will automatically upgrade to new minor versions as they are released. The automatic upgrades occur during the maintenance window for the database.

### Maintenance window [Info](#)

Select the period you want pending modifications or maintenance applied to the database by Amazon RDS.

- ☐ Select window  
☒ No preference

### Deletion protection

- ☐ **Enable deletion protection**  
Protects the database from being deleted accidentally. While this option is enabled, you can't delete the database.

- ii. The rest can be selected as needed

### Estimated monthly costs

The Amazon RDS Free Tier is available to you for 12 months. Each calendar month, the free tier will allow you to use the Amazon RDS resources listed below for free:

- 750 hrs of Amazon RDS in a Single-AZ db.t2.micro Instance.
- 20 GB of General Purpose Storage (SSD).
- 20 GB for automated backup storage and any user-initiated DB Snapshots.

[Learn more about AWS Free Tier.](#)

When your free usage expires or if your application use exceeds the free usage tiers, you simply pay standard, as-you-go service rates as described in the [Amazon RDS Pricing page](#).

- l. You should see the estimated monthly cost at the bottom. There should not be an actual cost, you should see as above.
- m. After creating the db and clicking on its name, you should see the summary as below.

#### Summary

DB identifier whatever	CPU -	Info Creating	Class db.t2.micro
Role Instance	Current activity	Engine PostgreSQL	Region & AZ -

#### Connectivity & security

Monitoring

Logs & events

Configuration

Maintenance & backups

Tags

#### Connectivity & security

##### Endpoint & port

Endpoint

-

Port

-

##### Networking

Availability zone

-

VPC

vpc-c59064ad

Subnet group

default-vpc-c69064ad

Subnets

subnet-932990df

subnet-5c713b26

subnet-5c1d0104

##### Security

VPC security group

default (sg-997a5cfa)  
(active)

Public accessibility

Yes

Certificate authority

rdi-ca-2015

Certificate authority date

Mar 5th, 2020