



Connect a Web App to Amazon Aurora



Kehinde Abiuwa

The screenshot shows the 'Create database' wizard in the AWS Management Console. At the top, there are two tabs: 'Standard create' (selected) and 'Easy create'. The 'Standard create' tab includes a note: 'You set all of the configuration options, including ones for availability, security, backups, and maintenance.' The 'Easy create' tab includes a note: 'Use recommended best-practice configurations. Some configuration options can be changed after the database is created.'

Engine options:

- Aurora (MySQL Compatible)
- Aurora (PostgreSQL Compatible)
- MySQL
- PostgreSQL
- MariaDB
- Oracle
- Microsoft SQL Server
- SQL Server
- IBM Db2
- IBM DB2

Engine version:
Aurora MySQL 3.0B.2 (compatible with MySQL 8.0.39) - default for major version 8.0

Enable RDS Extended Support

Templates:

- Production: Use defaults for high availability and fast, consistent performance.
- Dev/Test: This instance is intended for development use outside of a production environment.

Introducing Today's Project!

What is Amazon Aurora?

Amazon Aurora is a fully managed relational database service from AWS that's compatible with MySQL and PostgreSQL. It is useful because it offers the speed and availability of high-end commercial databases at a lower cost, automatically handles backups, replication, and failover, and can scale storage and compute seamlessly—making it a reliable and efficient choice for modern applications.

How I used Amazon Aurora in this project

In today's project, I used Amazon Aurora to create a secure and scalable relational database, connect it to my EC2 instance, and prepare it to store and manage the data that my future web application will use.

One thing I didn't expect in this project was...

One thing I didn't expect in this project was how much setup goes into configuring the Aurora cluster and making sure the security groups, networking, and permissions are all aligned so the EC2 instance can connect to the database properly.



K

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This project took me...

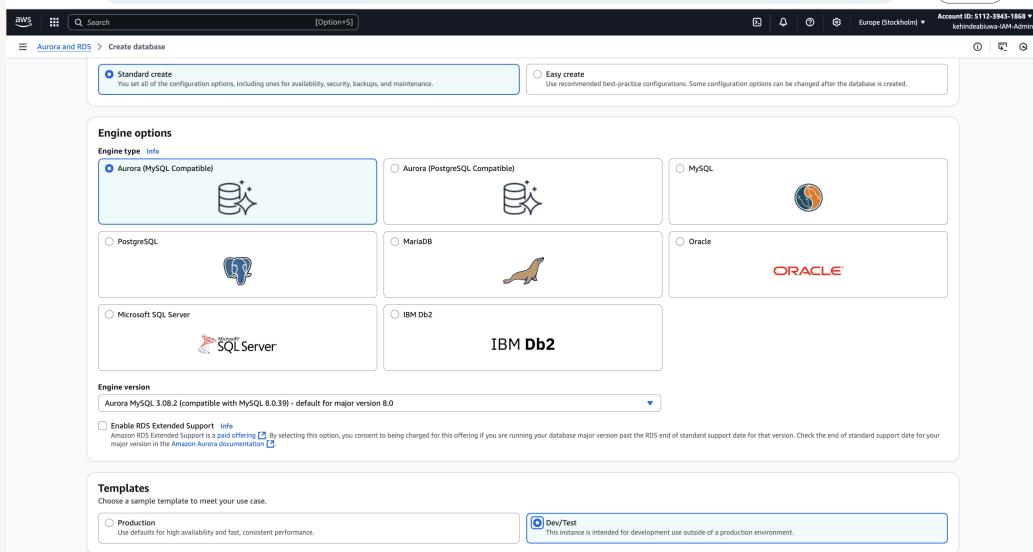
This project took me 40 minutes

In the first part of my project...

Creating an Aurora Cluster

A relational database is a type of database that organizes data into tables, which are collections of rows and columns. Kind of like a spreadsheet! We call it "relational" because the rows relate to the columns and vice-versa.

Aurora is a good choice when you need a highly available, scalable, and fully managed relational database that's compatible with MySQL or PostgreSQL. It offers faster performance than standard RDS engines, automatically handles backups and replication, and can scale storage and read capacity seamlessly, making it ideal for production applications that require reliability, speed, and minimal maintenance.





Halfway through I stopped!

I stopped creating my Aurora database because I need to go the EC2 section to create an EC2 instance that by web app will run on and also connect to Aurora

Features of my EC2 instance

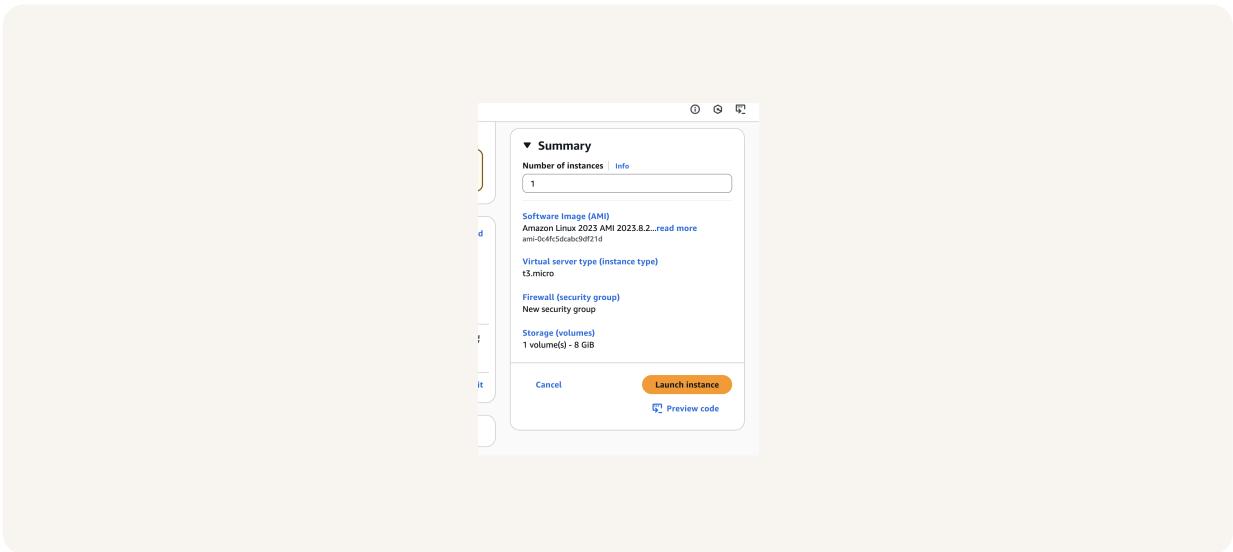
I created a new key pair for my EC2 instance because it allows me to securely connect to the server via SSH. The private key ensures that only I (or authorized users with the key) can access the instance, which is an important security best practice in AWS.

When I created my EC2 instance, I took particular note of my EC2 instance IPv4 address and the key pair name because I'll need the IPv4 address to connect to the server and access it from my local machine, and I'll need the key pair name (with its private key file) to authenticate securely when logging in via SSH.

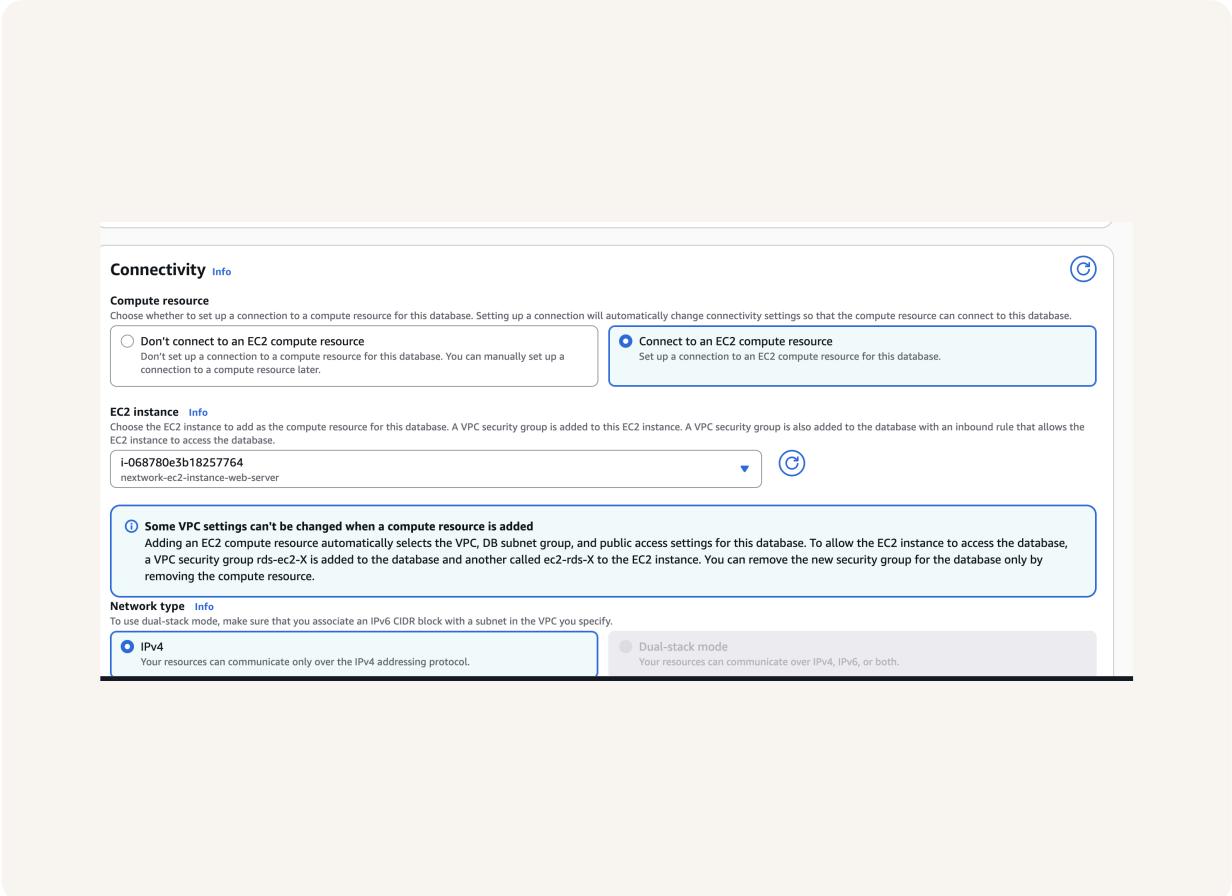


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Then I could finish setting up my database



Aurora Database uses clusters because clusters provide high availability and scalability by separating the writer instance from reader instances. This design allows Aurora to replicate data across multiple Availability Zones automatically, ensure failover if the primary instance goes down, and let applications scale easily by adding more read replicas.



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