



# Connect A Web App with Aurora



Paul Botchwey

## Sample page

NAME

ADDRESS

Add Data

ID	NAME	ADDRESS
1	Paul Botchwey	East Legon
2	John Flour	Accra



**Paul Botchwey**  
NextWork Student

[NextWork.org](http://NextWork.org)

# Introducing Today's Project!

## What is Amazon Aurora?

Amazon Aurora is a relational database that combines the performance and availability of commercial databases with the simplicity and cost-effectiveness of open-source databases. It is useful because it provides scalability and high performances

## How I used Amazon Aurora in this project

I used Amazon Aurora as the database to store and retrieve data for the web app. connecting the EC2 instance to Aurora, I ensured efficient data management

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

I thought connecting to the EC2 instance via Instance Connect or PuTTY would be a hurdle, but it turned out to be seamless. The process was much easier than I expected, allowing me to focus more on building the web app rather than troubleshooting con

## This project took me...

This took me 58 minutes to complete



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NextWork Student

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# Creating a Web App

```
ec2- [REDACTED] ec2-user@ip-172-31-36-141:~  
Microsoft Windows [Version 10.0.22000.318]  
Copyright (c) Microsoft Corporation. All rights reserved.  
env:  
    C:\Users\NANA>cd Downloads  
copy:  
    C:\Users\NANA\Downloads>ssh -i NextworkAuroraApp.pem ec2-user@ec2-13-60-55-129.eu-north-1.compute.amazonaws.com  
ySQ , #  
ySQ ~\### Amazon Linux 2023  
ySQ ~\###  
ySQ ~\# https://aws.amazon.com/linux/amazon-linux-2023  
---  
Tal ~\ /  
---  
EM ~\ /  
---  
/m/  
rolast login: Mon Oct 21 10:28:19 2024 from 102.176.75.188  
ySQ , #  
ySQ ~\### Amazon Linux 2023  
Fi ~\###  
---  
ID ~\# https://aws.amazon.com/linux/amazon-linux-2023  
NAI ~\ /  
ADI ~\ /  
---  
/m/  
last login: Mon Oct 21 10:28:19 2024 from 102.176.75.188  
ySQ [ec2-user@ip-172-31-36-141 ~]$  
mppt
```

To connect to my EC2 instance, I used SSH with the .pem key file during setup. I ran `ssh -i NextWorkAuroraApp.pem ec2-user@ec2-13-60-55-129.eu-north-1.compute.amazonaws.com`. I ensured the security group allowed inbound SSH traffic on port 22



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NextWork Student

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# Connecting my Web App to Aurora

The screenshot shows a terminal window with a blue background. The window title is "SamplePage.php". The code in the terminal is:

```
GNU nano 5.8
if(!TableExists("EMPLOYEES", $connection, $dbName))
{
    $query = "CREATE TABLE EMPLOYEES (
        ID INT(11) UNSIGNED AUTO_INCREMENT PRIMARY KEY,
        NAME VARCHAR(45),
        ADDRESS VARCHAR(90)
    )";
    if(!mysqli_query($connection, $query)) echo("<p>Error creating table.</p>");
}
/* Check for the existence of a table. */
function TableExists($tableName, $connection, $dbName) {
    $t = mysqli_real_escape_string($connection, $tableName);
    $d = mysqli_real_escape_string($connection, $dbName);

    $checktable = mysqli_query($connection,
        "SELECT TABLE_NAME FROM information_schema.TABLES WHERE TABLE_NAME = '$t' AND TABLE_SCHEMA = '$d'");
    if(mysqli_num_rows($checktable) > 0) return true;
    return false;
}

```

At the bottom of the terminal window, there is a menu bar with various options like Help, Write Out, Replace, Cut, Paste, Execute, Justify, Location, Go To Line, Undo, Redo, Set Mark, To Bracket, Where Was, and Next.

I set up my EC2 instance's connection details to my database by configuring the RDS Aurora instance's endpoint, ensuring the security group allowed access from the EC2 instance. I updated the security group rules to allow inbound traffic from the EC2

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# My Web App Upgrade

## Sample page

ID	NAME	ADDRESS
1	Paul Botchwey	East Legon
2	John Flour	Accra

Next, I upgraded my web app by adding htm,php code to create a form to take name and address and then post it to the database to be displayed as a table in the web page



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NextWork Student

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# Testing my Web App

To make sure my web app was working correctly, I used the MySQL command-line interface (CLI) to query the database after making changes. Making me verify the data updates reflected accurately in the Aurora database,

```
MySQL [sample]> SHOW TABLES;
+-----+
| Tables_in_sample |
+-----+
| EMPLOYEES         |
+-----+
1 row in set (0.002 sec)

MySQL [sample]> DESCRIBE EMPLOYEES;
+-----+-----+-----+-----+-----+
| Field | Type   | Null | Key | Default | Extra       |
+-----+-----+-----+-----+-----+
| ID    | int unsigned | NO   | PRI  | NULL    | auto_increment |
| NAME  | varchar(45)  | YES  |      | NULL    |                |
| ADDRESS | varchar(90) | YES  |      | NULL    |                |
+-----+-----+-----+-----+-----+
3 rows in set (0.002 sec)

MySQL [sample]> SELECT * FROM EMPLOYEES;
Empty set (0.001 sec)

MySQL [sample]> SELECT * FROM EMPLOYEES;
+-----+-----+
| ID  | NAME   | ADDRESS        |
+-----+-----+
| 1   | Paul Botchwey | East Legon     |
| 2   | John Flour    | Accra          |
+-----+-----+
2 rows in set (0.001 sec)

MySQL [sample]>
```



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