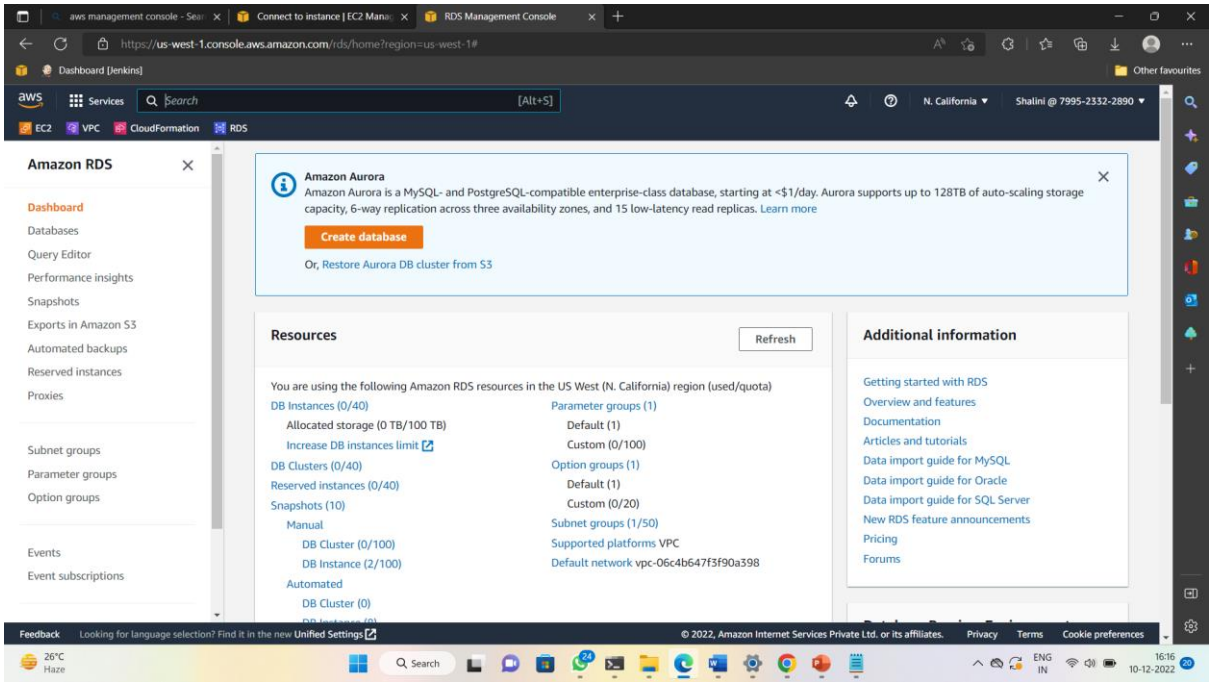
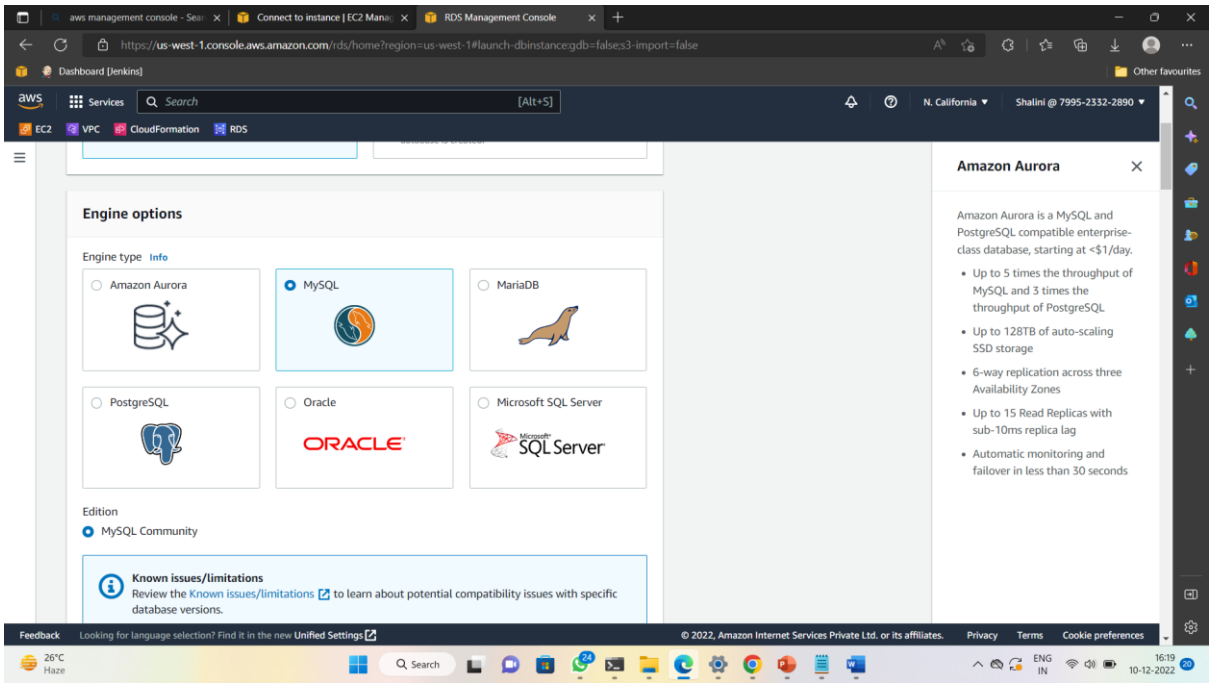
AWS-DEPLOY WORDPRESS WITH AMAZON RDS

Lab-1: Creating a MySQL Database with RDS:

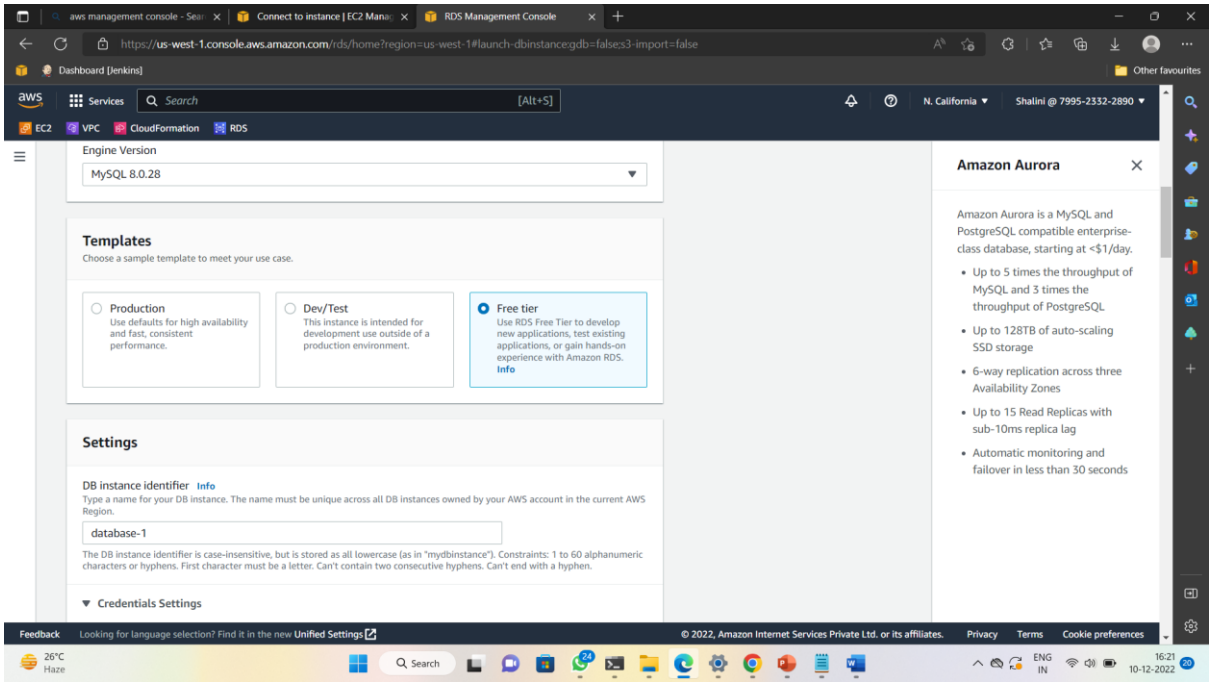
1. go to Amazon RDS in the AWS console. Click on the Create database button to get started.



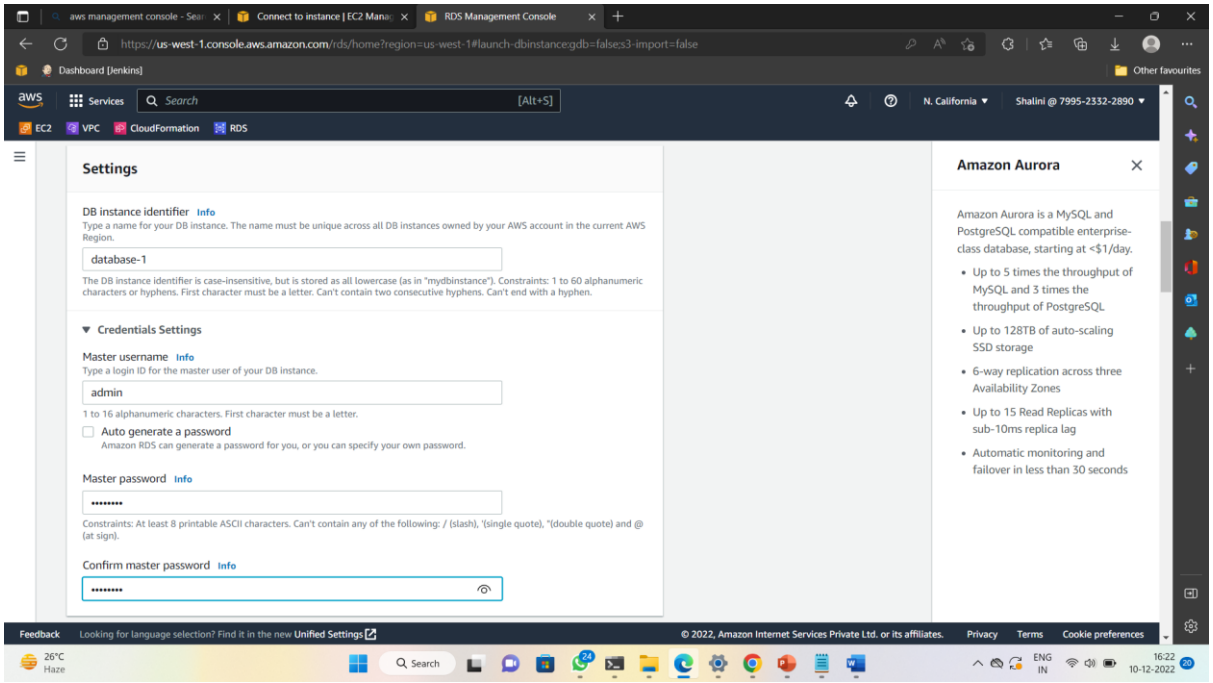
2. WordPress uses MySQL, so select that engine now.



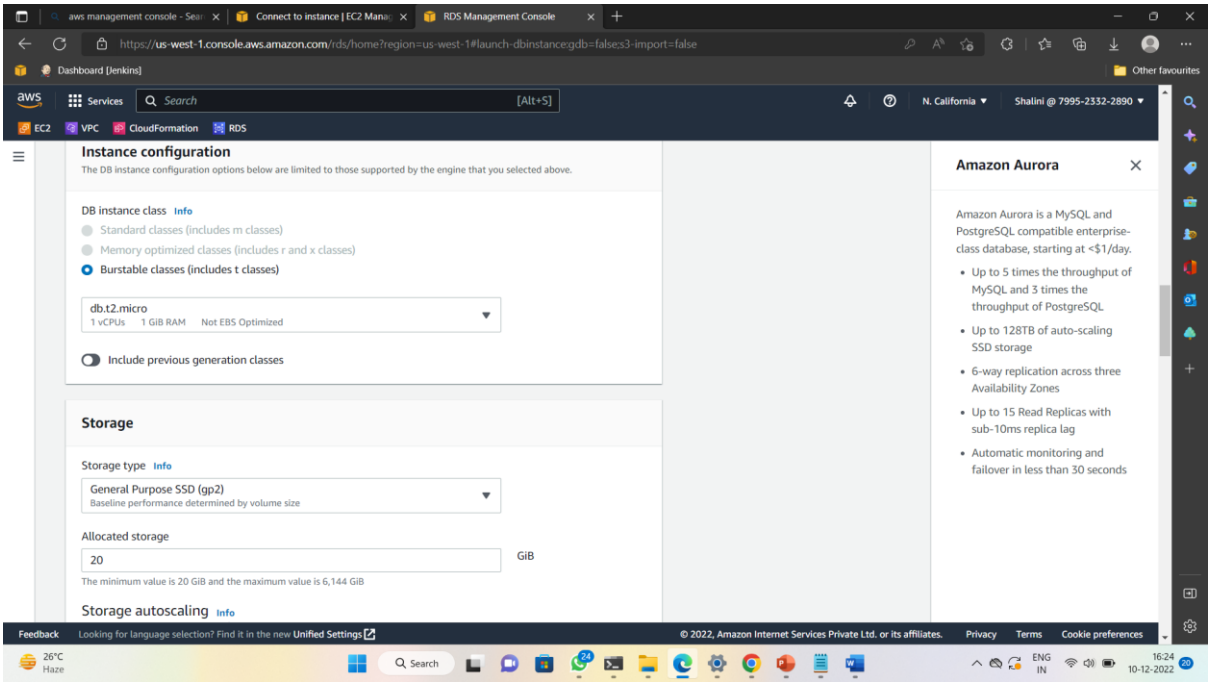
3. In the Templates section of the creation wizard, there is an option to only show options that are available in the AWS Free Tier. Select this option now if you would like to use this lab for learning without spending any money.



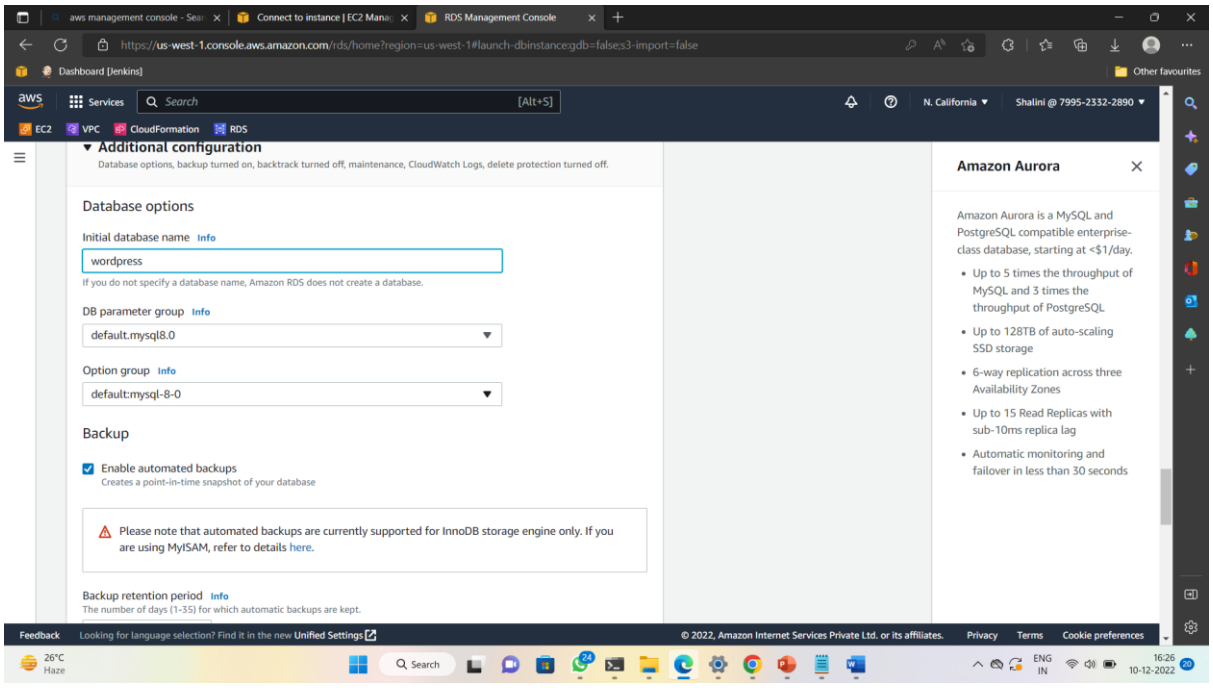
4. Next, you will specify the authentication settings for your MySQL deployment. This includes the database name and the master username and password.



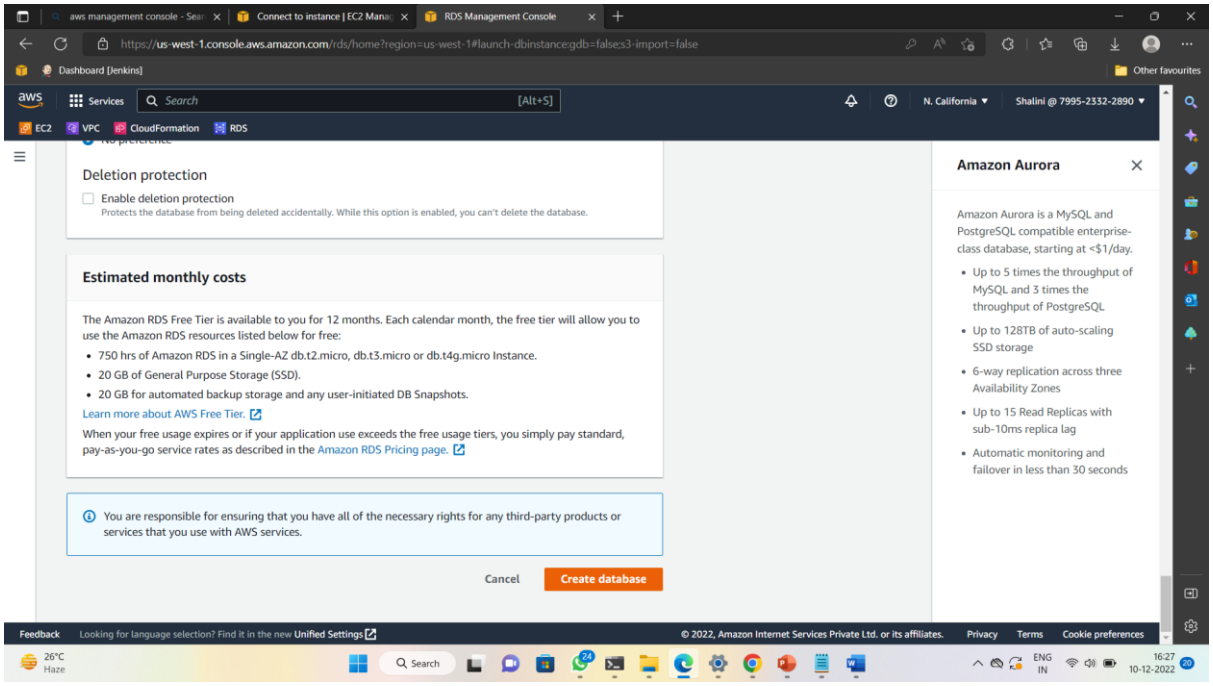
5. After setting your username and password, you can select key details about your MySQL deployment. This includes the instance class and storage details.



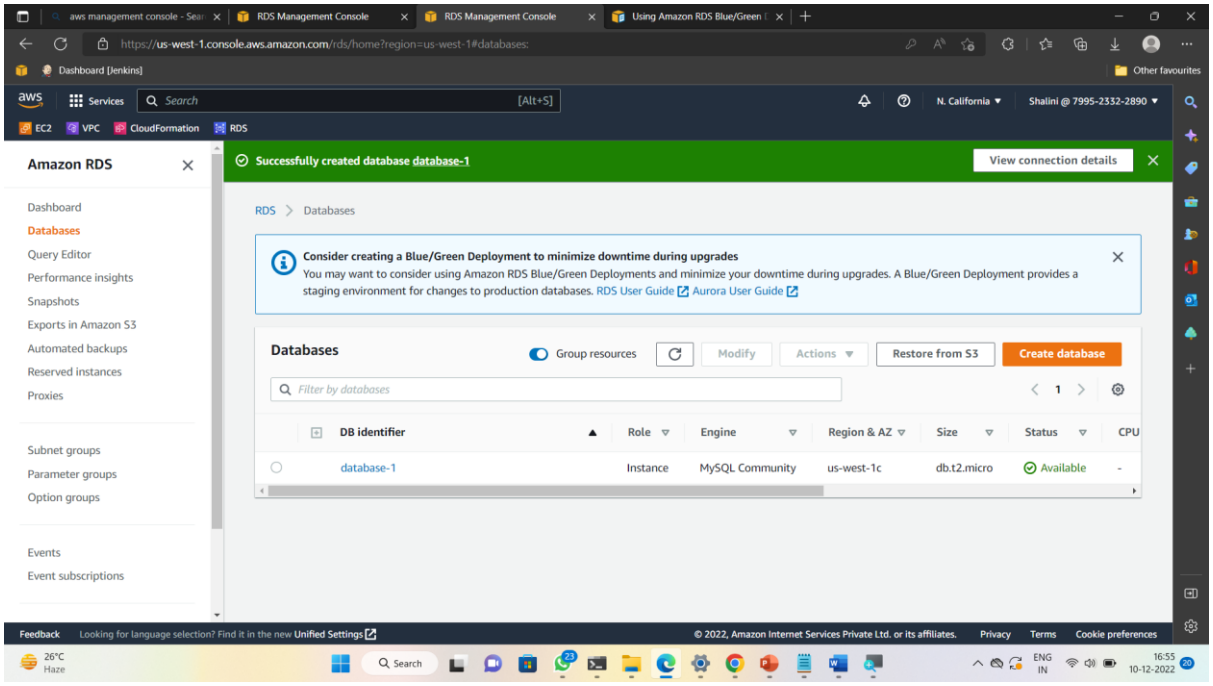
6. Click on the Additional configuration line to expand the options.
7. Set the initial database name to WordPress. This will ensure RDS creates the database in your MySQL instance upon initialization. We will use this database name when connecting to your database



8. Click on the Create database button to create your database.

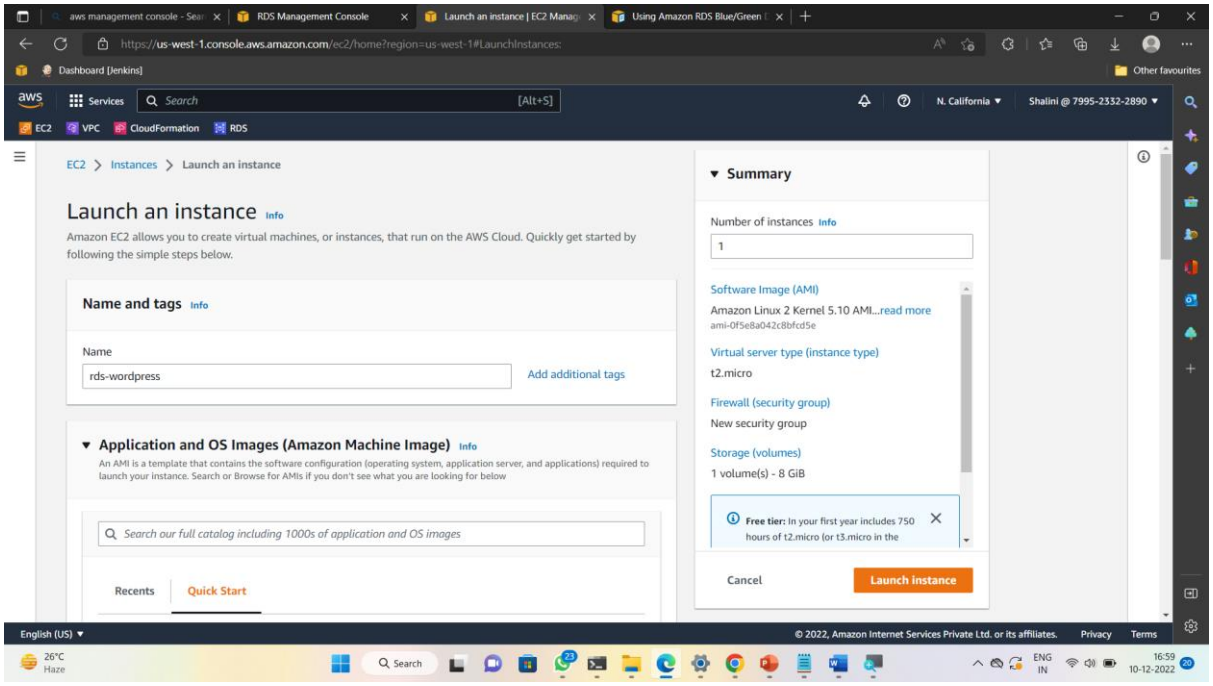


9. You should see a success notice indicating that your database is being created.

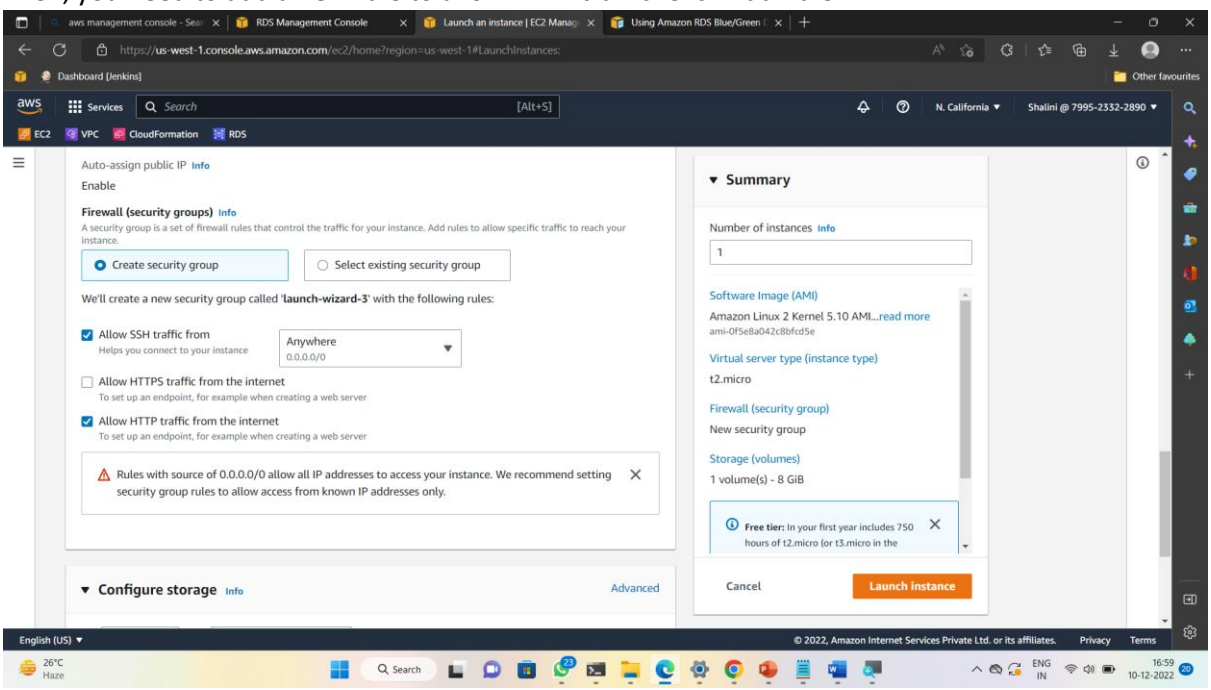


Lab – 2: Creating an EC2 Instance to run WordPress site.

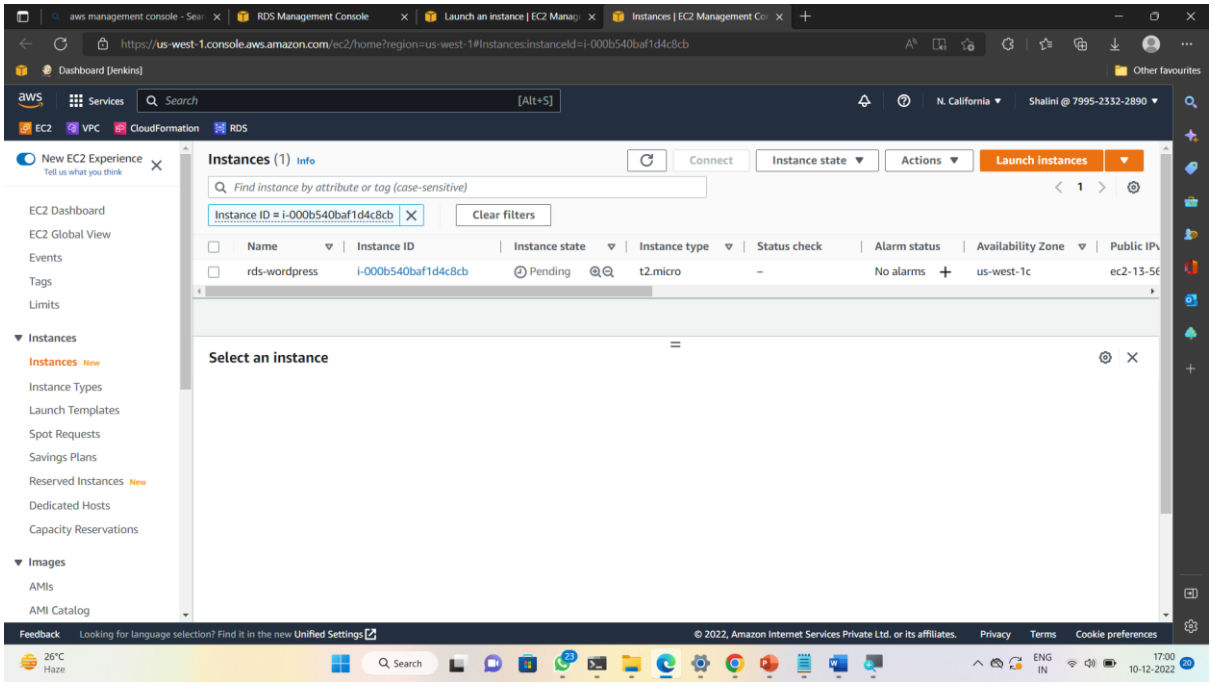
1. To create your EC2 instance, go to Amazon EC2 in the AWS console. Click the blue button that says Launch instance to open the instance creation wizard.



2. There is an SSH rule configured, but it allows SSH access from any IP address. Click under Source to restrict it to your current IP address.
3. Then, you need to add a new rule to allow HTTP traffic. Click Add Rule.

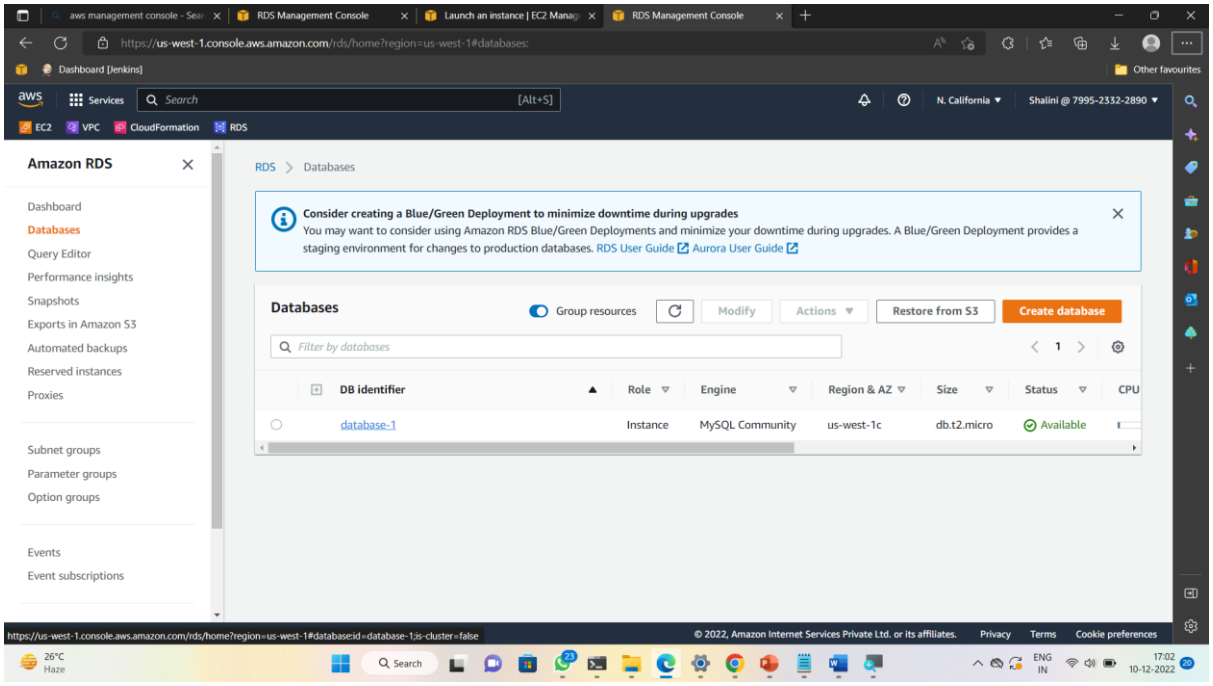


4. You have successfully launched your EC2 instance.

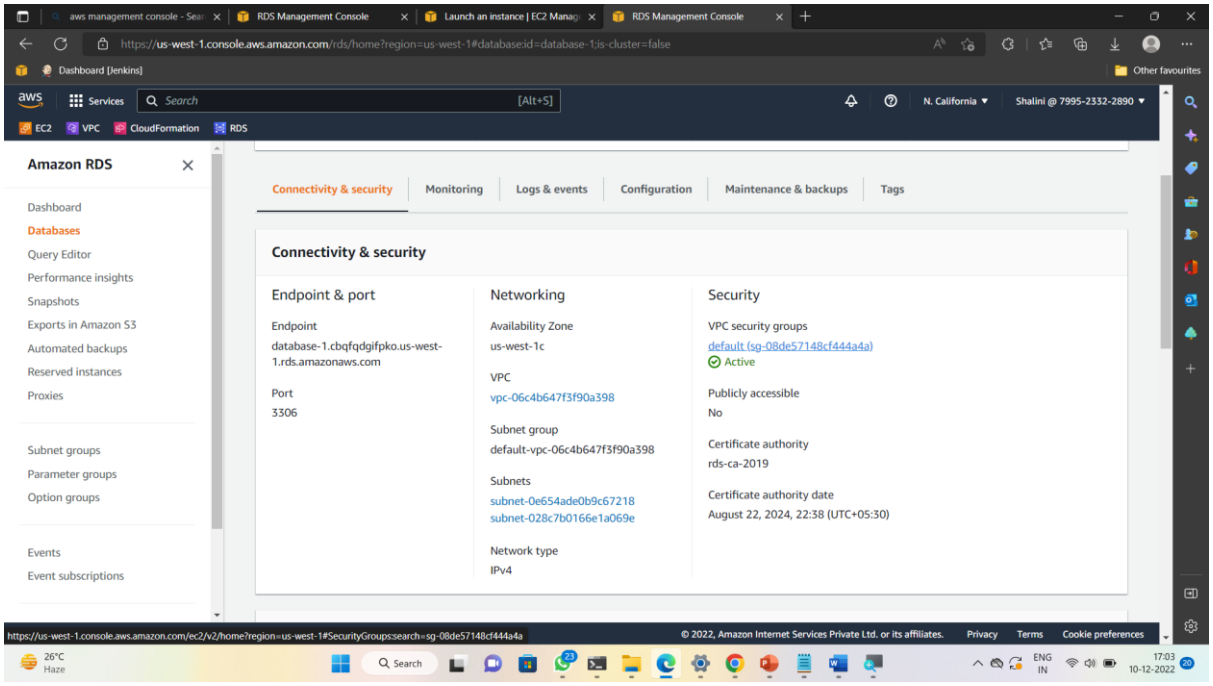


Lab – 3: Configuring your RDS database.

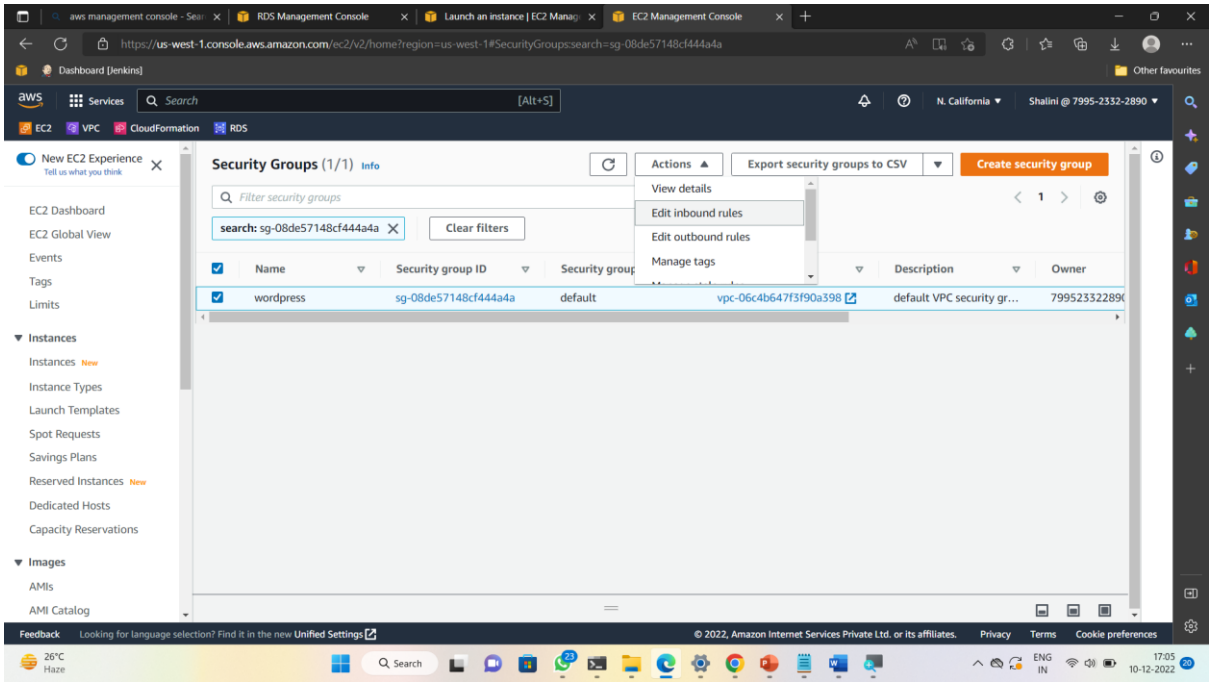
1. First, you will modify your RDS database to allow network access from your EC2 instance.
2. This time, you want to allow certain traffic from your EC2 instance into your RDS database
3. To configure this, go to the RDS databases in the AWS console. Click on the MySQL database you created in an earlier module in this lab.



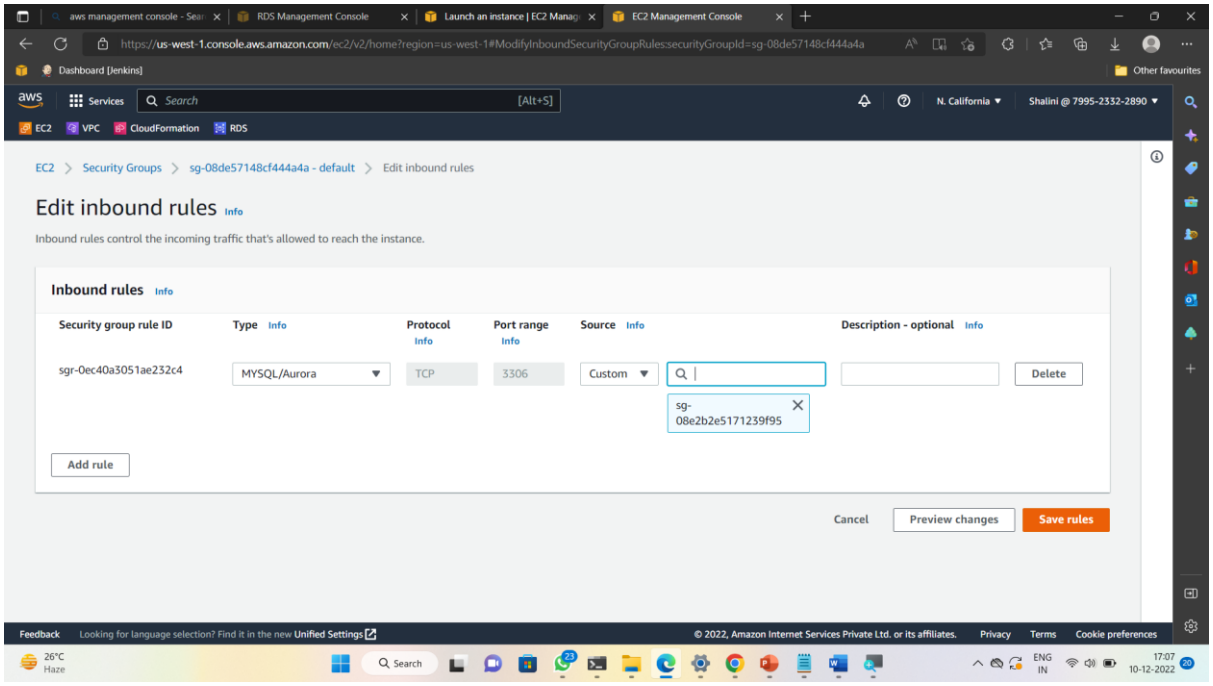
4. Scroll to the Connectivity & security tab in the display, and click on the security group listed in VPC security groups.



5. Click the Inbound tab, then click the Edit button to change the rules for your security group.



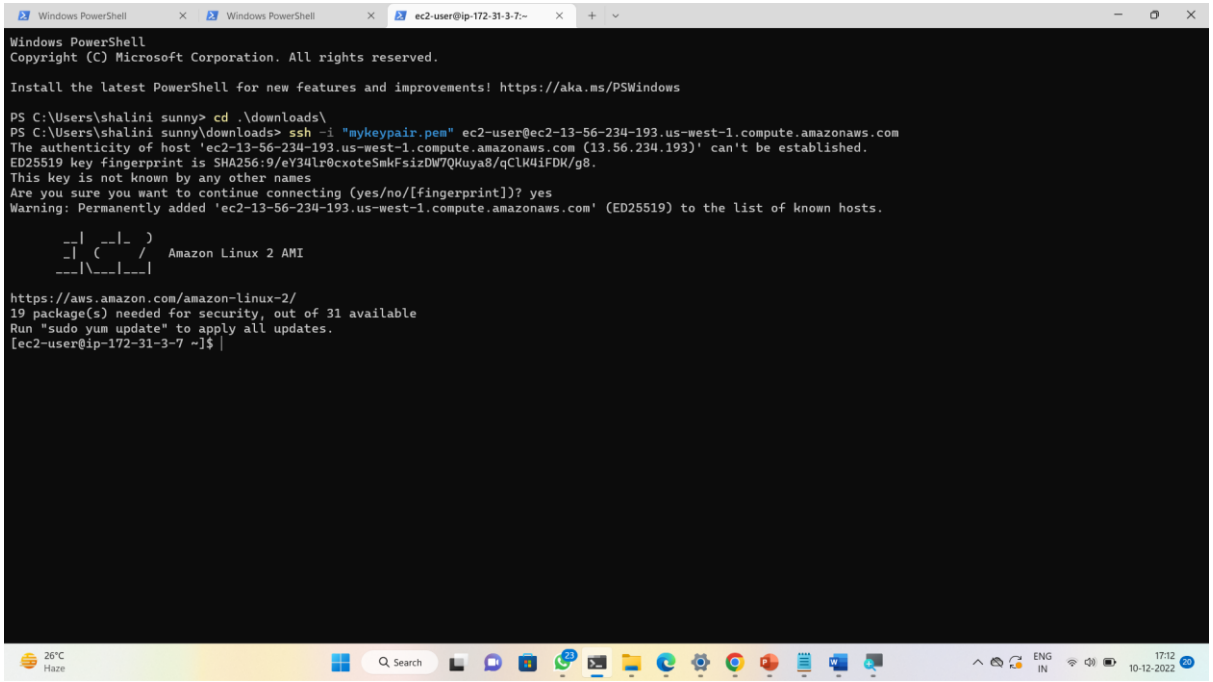
6. Change the Type property to MYSQL/Aurora, which will update the Protocol and Port Range to the proper values.



7. Search the security group that you used for your EC2 instance.
8. hit the Save button to save your changes.

SSH into your EC2 Instance

1. We are accessing the command line interface with ssh command

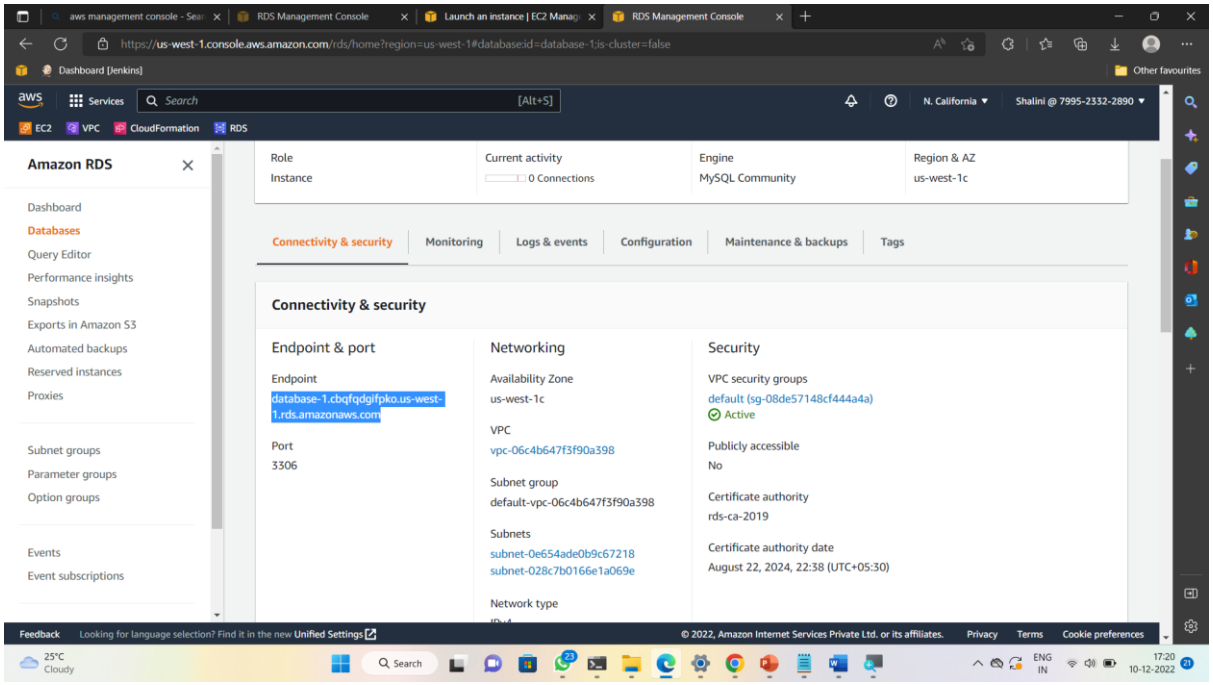


2. First, run the following command in your terminal to install a MySQL client to interact with the database.

- **Sudo yum -y install mysql**

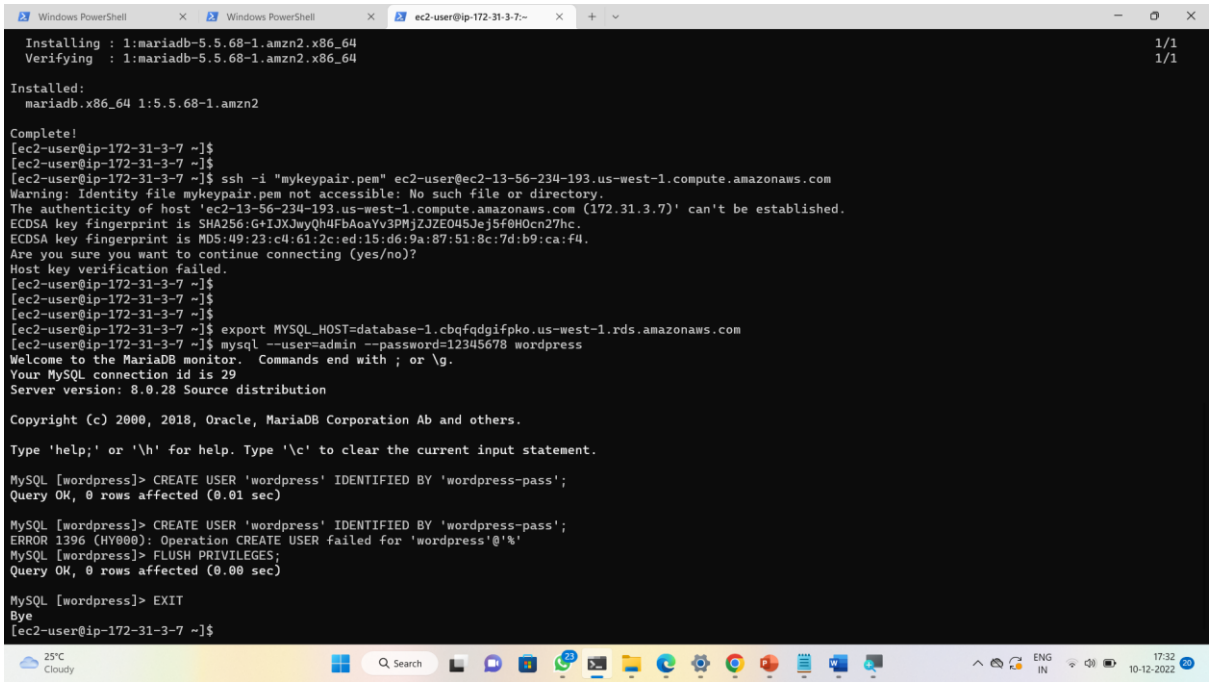
3. Next, find the hostname for your RDS database in the AWS console. In the details of your RDS database, the hostname will be shown as the Endpoint in the Connectivity & security section.
4. In your terminal, enter the following command to set an environment variable for your MySQL host. Be sure to replace “” with the hostname of your RDS instance.

➢ **export MYSQL_HOST=database-1.cbqfqdgifpko.us-west-1.rds.amazonaws.com**



5. Next, run the following command in your terminal to connect to your MySQL database. Replace “” and “” with the master username and password you configured when creating your RDS database.

➢ **mysql --user= admin --password= 123455678 wordpress**



6. Finally, create a database user for to my WordPress application and give it permission to access the “WordPress” database.

Run the following commands in your terminal:

- **CREATE USER 'wordpress' IDENTIFIED BY 'wordpress-pass';**
- **GRANT ALL PRIVILEGES ON wordpress.* TO wordpress; FLUSH PRIVILEGES;**
- **EXIT**

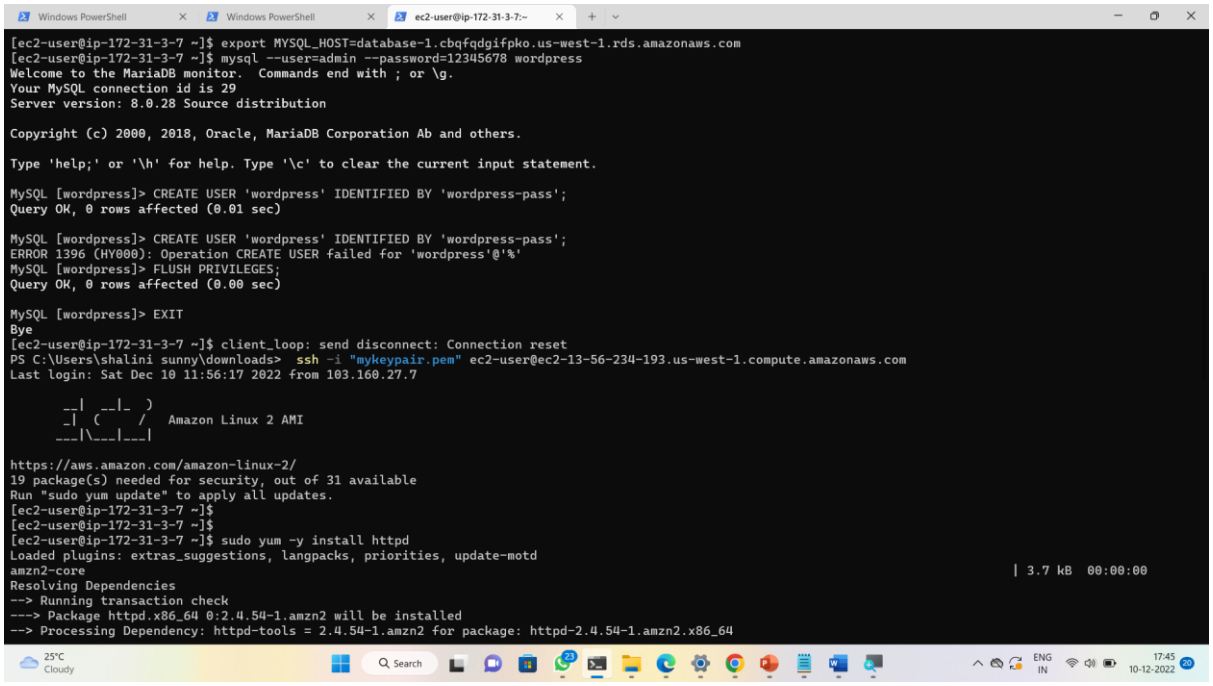
Lab – 4: Configuring WordPress on EC2.

1. Installing the Apache Web Server To run WordPress, i need to run a web server on your EC2 instance.

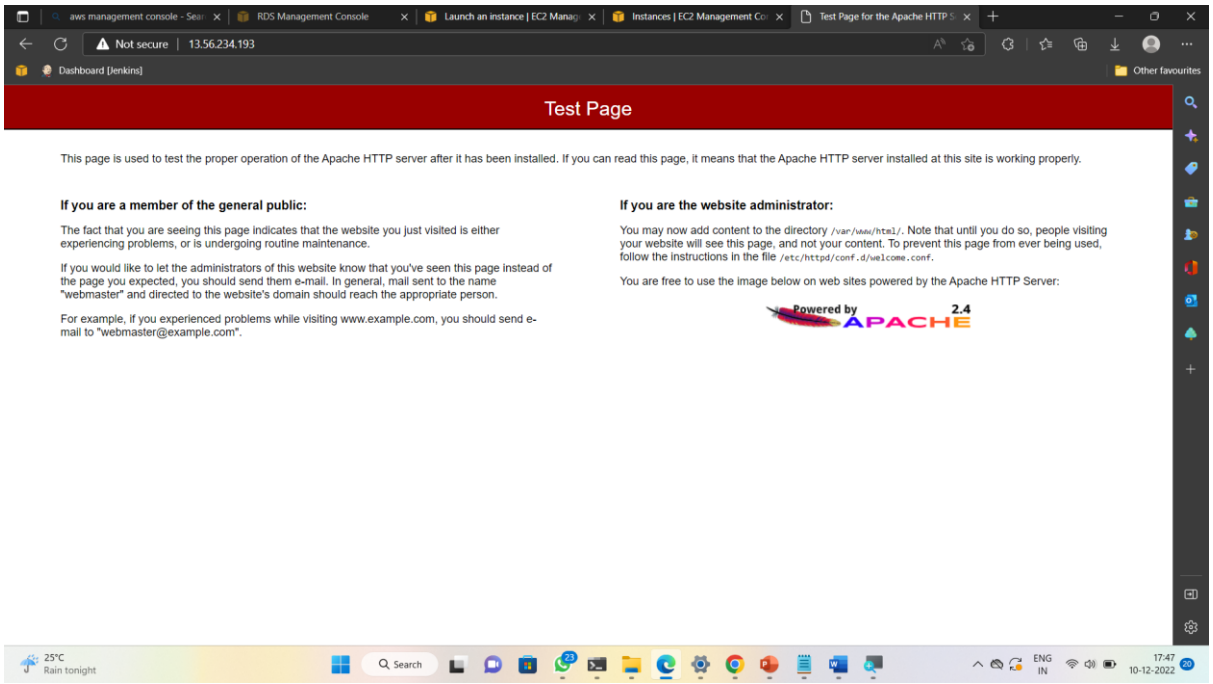
To install Apache on your EC2 instance,

2. run the following command in your terminal:

- **sudo yum install -y httpd**



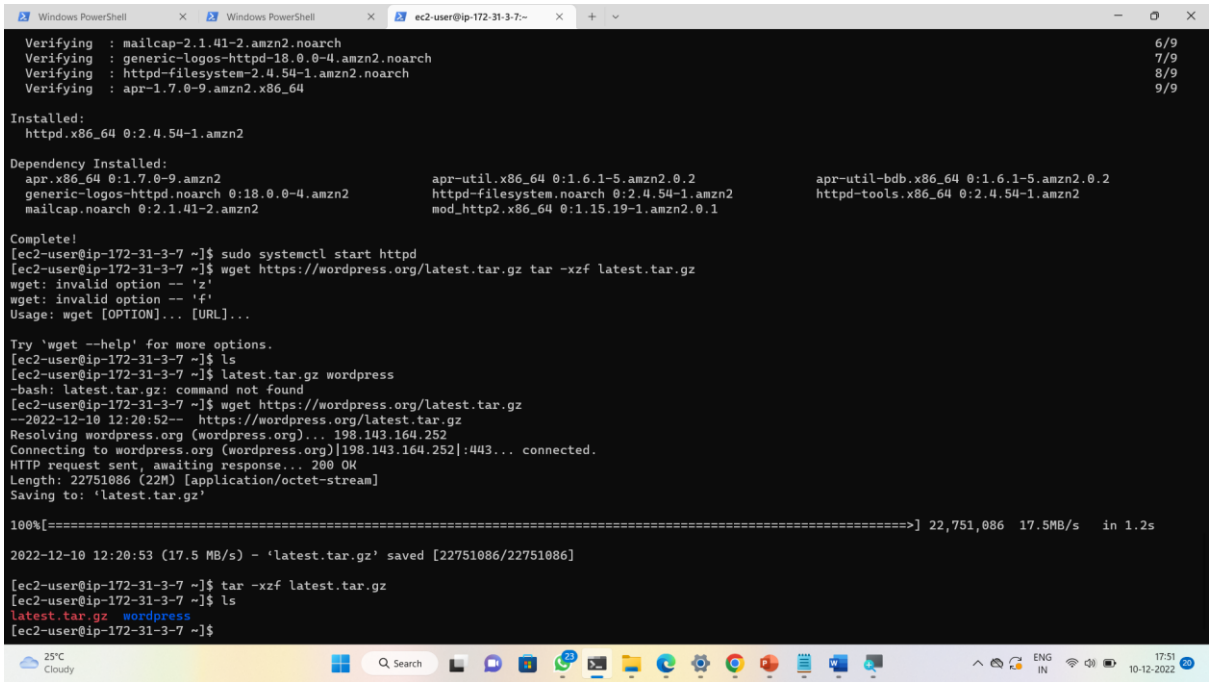
- To start the Apache web server, run the following command in your terminal:
- **sudo service httpd start**
- You can see that your Apache web server is working and that your security groups are configured correctly by visiting the public DNS of your EC2 instance in your browser.



- Now that your Apache web server is working, it's time to download and configure WordPress
- **Download and Configure WordPress:**

1. In this step, you will download the WordPress software and set up the configuration.
2. First, download and uncompressing the software by running the following commands in your terminal:

- **wget https://wordpress.org/latest.tar.gz tar -xzf latest.tar.gz**

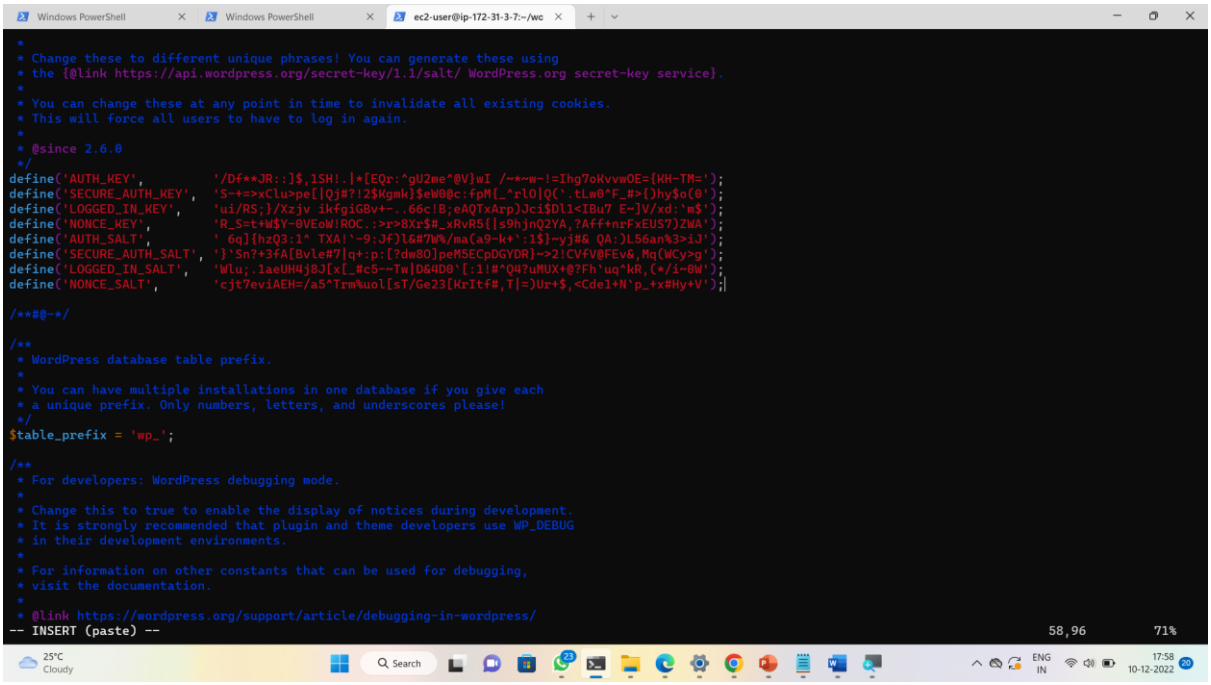


3. If you run "ls" to view the contents of your directory, you will see a tar file and a directory called wordpress with the uncompressed contents.
- Ls
- latest.tar.gz wordpress
4. Change into the wordpress directory and create a copy of the default config file using the following commands:
- cd wordpress
- cp wp-config-sample.php wp-config.php

5. Then, open the wp-config.php file using the vi editor by running the following command.
6. You need to edit two areas of configuration.
7. First, edit the database configuration by changing the following lines:

// ** MySQL settings - You can get this info from your web host ** // /** The name of the database for WordPress */ define('DB_NAME', 'database_name_here');
/** MySQL database username */ define('DB_USER', 'username_here');
/** MySQL database password */ define('DB_PASSWORD', 'password_here');
/** MySQL hostname */ define('DB_HOST', 'localhost');

- The second configuration section you need to configure is the Authentication Unique Keys and Salts. It looks as follows in the configuration



- You can save and exit from vi editor by entering Esc then type wq and hit Enter.

❖ **Deploying WordPress Site**

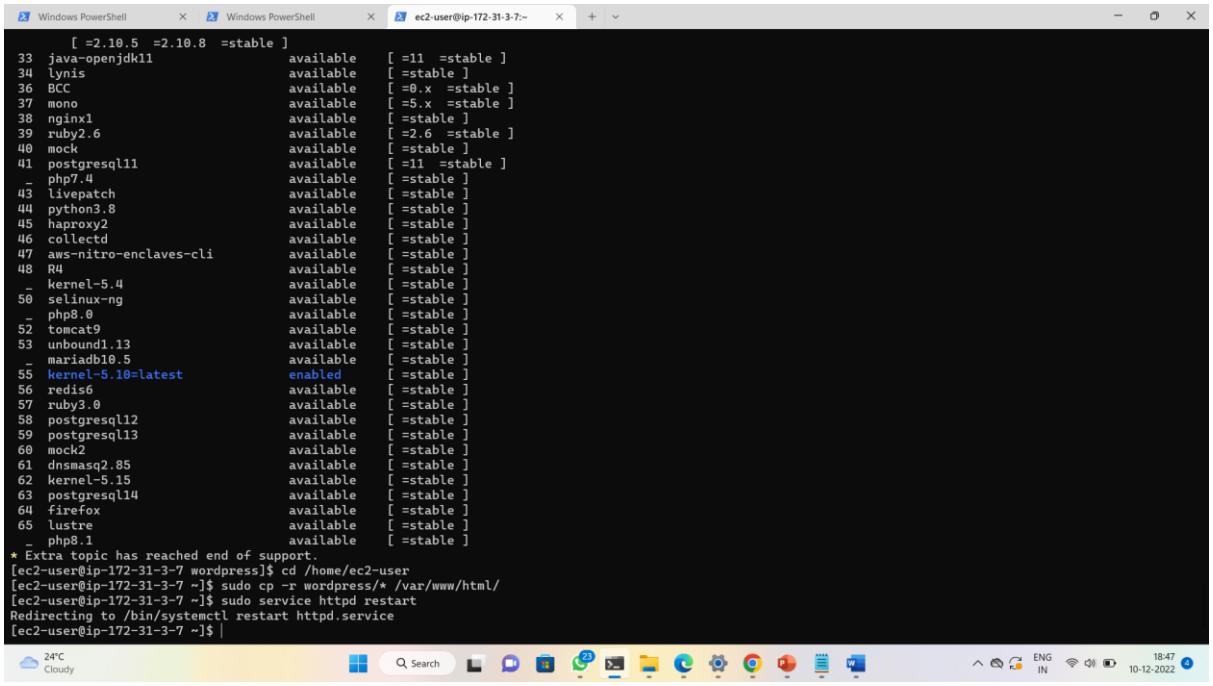
1. In this step, you will make your Apache web server handle requests for WordPress.
2. First, install the application dependencies you need for WordPress. In your terminal, run the following command.
3. sudo amazon-linux-extras install -y lamp-mariadb10.2-php7.2 php7.2
4. Second, change to the proper directory by running the following command:
    - **cd /home/ec2-user**

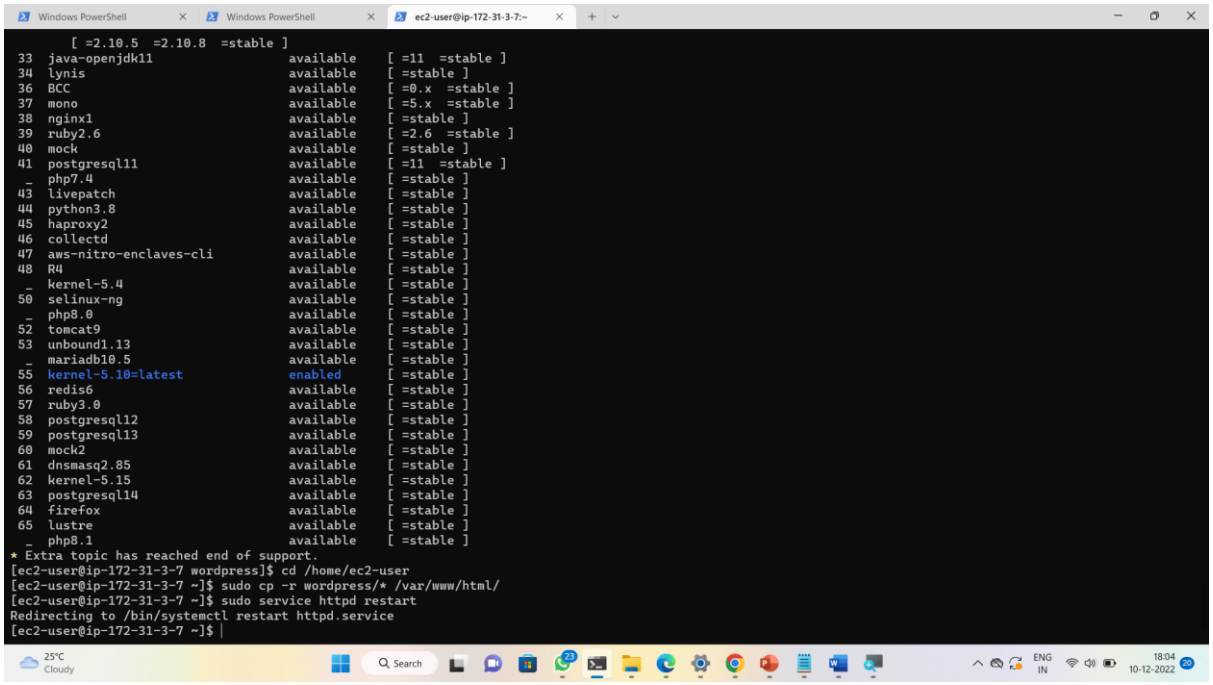
Then, copy your WordPress application files into the /var/www/html directory used by Apache.

- **sudo cp -r wordpress/* /var/www/html/**

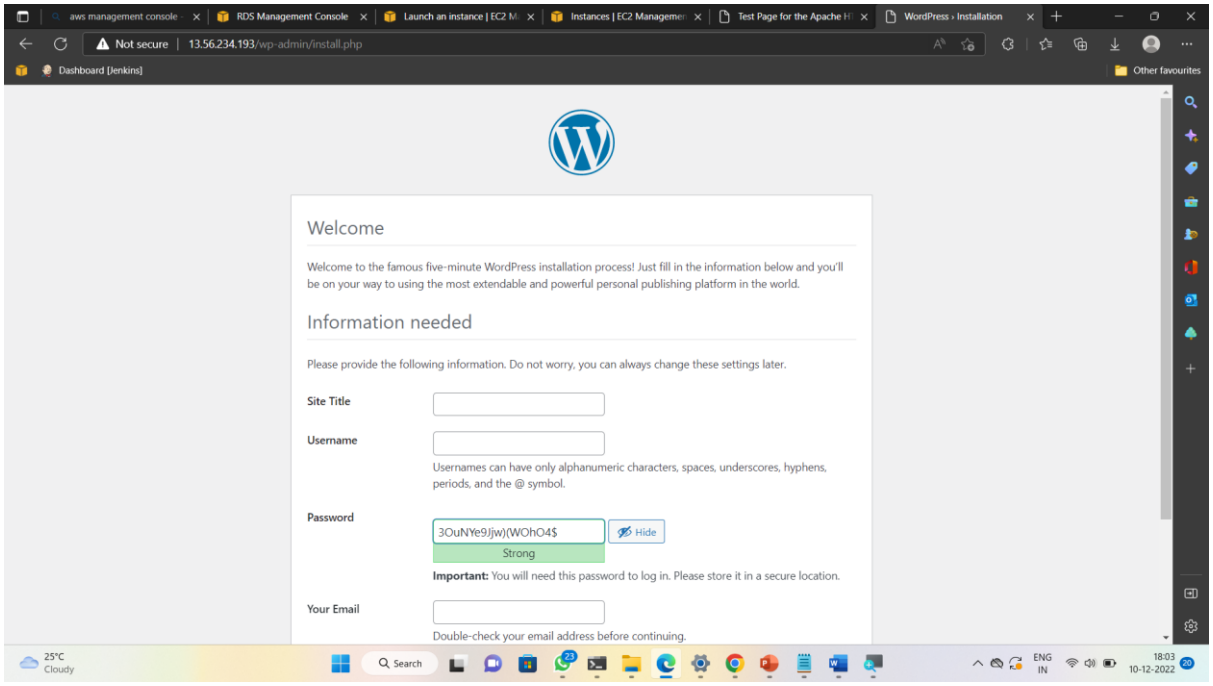
Finally, restart the Apache web server to pick up the changes.

- **sudo service httpd restart**





You should see the WordPress welcome page and the five-minute installation process


aws management console
RDS Management Console
Launch an instance | EC2
Instances | EC2 Manageme
Test Page for the Apache H
WordPress › Installation
Not secure | 13.56.234.193/wp-admin/install.php
Dashboard [Jenkins]
Other favourites
Welcome
Welcome to the famous five-minute WordPress installation process! Just fill in the information below and you'll be on your way to using the most extendable and powerful personal publishing platform in the world.
Information needed
Please provide the following information. Do not worry, you can always change these settings later.
Site Title
Username
Usernames can have only alphanumeric characters, spaces, underscores, hyphens, periods, and the @ symbol.
Password
3OuNYe9Jjw)(WOhO4$
Hide
Strong
Important: You will need this password to log in. Please store it in a secure location.
Your Email
Double-check your email address before continuing.
25°C
Cloudy
Search
ENG
IN
18:03
10-12-2022