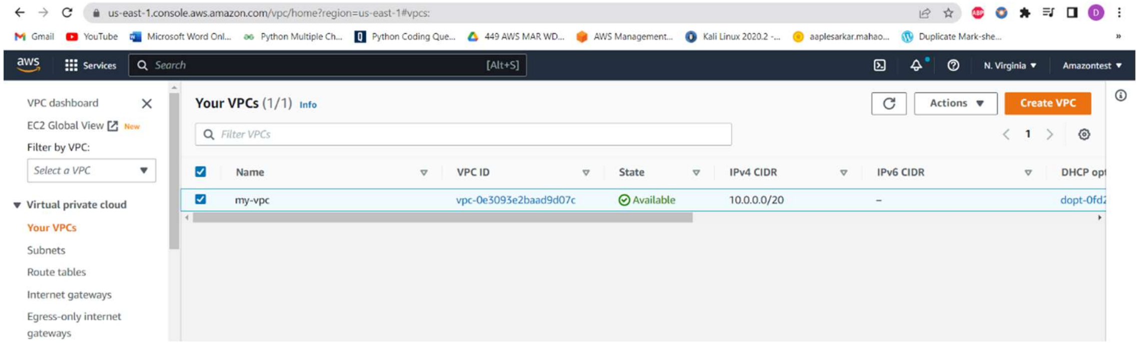
Project: - Hosting a Word press website on AWS virtual server Uses its own VPC network with the help of RDS, CloudFront, ELB, Autoscaling.

1. Create VPC and Subnet Security Group.

I. VPC

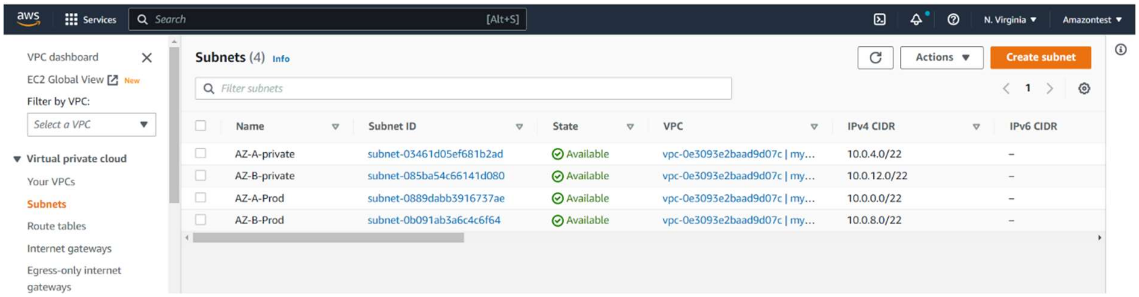


us-east-1.console.aws.amazon.com/vpc/home?region=us-east-1#vpcs:

Your VPCs (1/1)

☑	Name	VPC ID	State	IPv4 CIDR	IPv6 CIDR	DHCP opt
☑	my-vpc	vpc-0e3093e2baad9d07c	Available	10.0.0.0/20	–	dopt-0fd

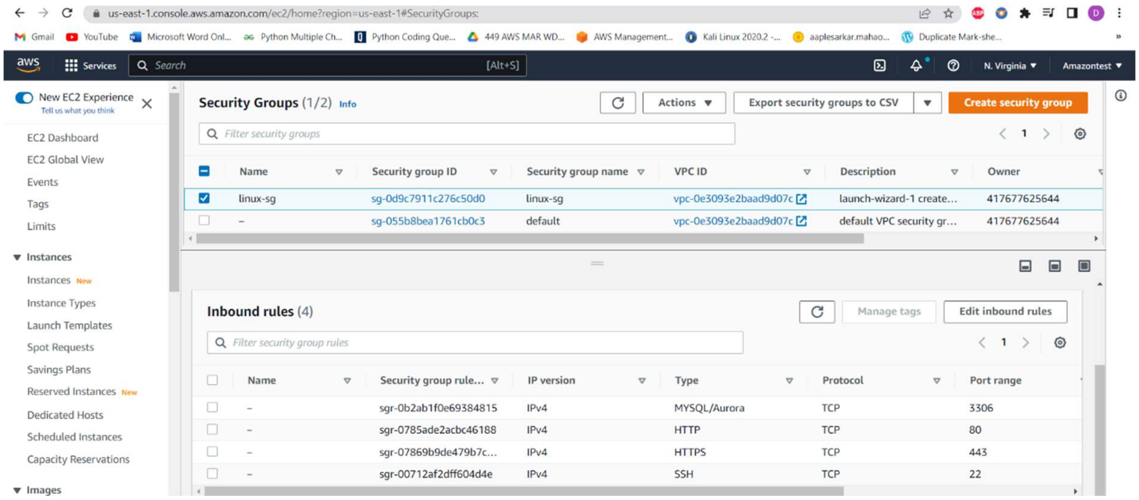
II. Create Subnets.



Subnets (4)

□	Name	Subnet ID	State	VPC	IPv4 CIDR	IPv6 CIDR
□	AZ-A-private	subnet-03461d05ef681b2ad	Available	vpc-0e3093e2baad9d07c | my...	10.0.4.0/22	–
□	AZ-B-private	subnet-085ba54c66141d080	Available	vpc-0e3093e2baad9d07c | my...	10.0.12.0/22	–
□	AZ-A-Prod	subnet-0889dabb3916737ae	Available	vpc-0e3093e2baad9d07c | my...	10.0.0.0/22	–
□	AZ-B-Prod	subnet-0b091ab3a6c4c6f64	Available	vpc-0e3093e2baad9d07c | my...	10.0.8.0/22	–

III. Security Group.



us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#SecurityGroups:

Security Groups (1/2)

☐	Name	Security group ID	Security group name	VPC ID	Description	Owner
☑	linux-sg	sg-0d9c7911c276c50d0	linux-sg	vpc-0e3093e2baad9d07c	launch-wizard-1 create...	417677625644
□	–	sg-055b8bea1761cb0c3	default	vpc-0e3093e2baad9d07c	default VPC security gr...	417677625644

Inbound rules (4)

□	Name	Security group rule...	IP version	Type	Protocol	Port range
□	–	sgr-0b2ab1f0e69384815	IPv4	MYSQL/Aurora	TCP	3306
□	–	sgr-0785ade2acbc46188	IPv4	HTTP	TCP	80
□	–	sgr-07869b9de479b7c...	IPv4	HTTPS	TCP	443
□	–	sgr-00712af2dff604d4e	IPv4	SSH	TCP	22

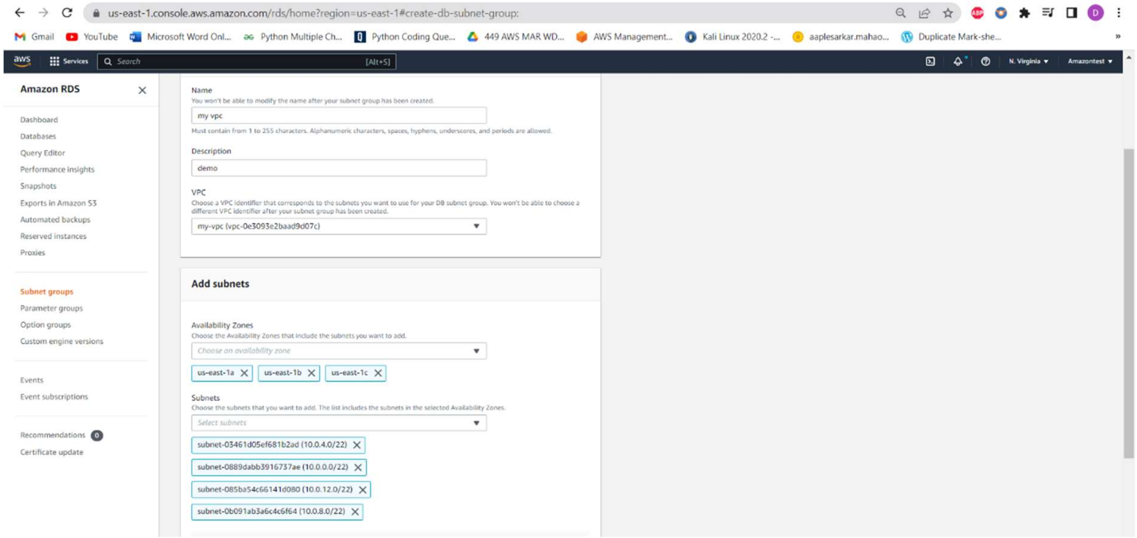
2. Create RDS Database.

1. Go to the RDS Console and create Subnet group for the database.

I. Give Subnet group name and Description.

II. Then select VPC and Availability zone

III. Select subnets and click the create button.



us-east-1.console.aws.amazon.com/rds/home?region=us-east-1#create-db-subnet-group:

Name
You won't be able to modify the name after your subnet group has been created.
my vpc
Must contain from 1 to 255 characters. Alphanumeric characters, spaces, hyphens, underscores, and periods are allowed.

Description
demo

VPC
Choose a VPC identifier that corresponds to the subnets you want to use for your DB subnet group. You won't be able to choose a different VPC identifier after your subnet group has been created.
my-vpc (vpc-0e3093e2baad9d07c)

Add subnets

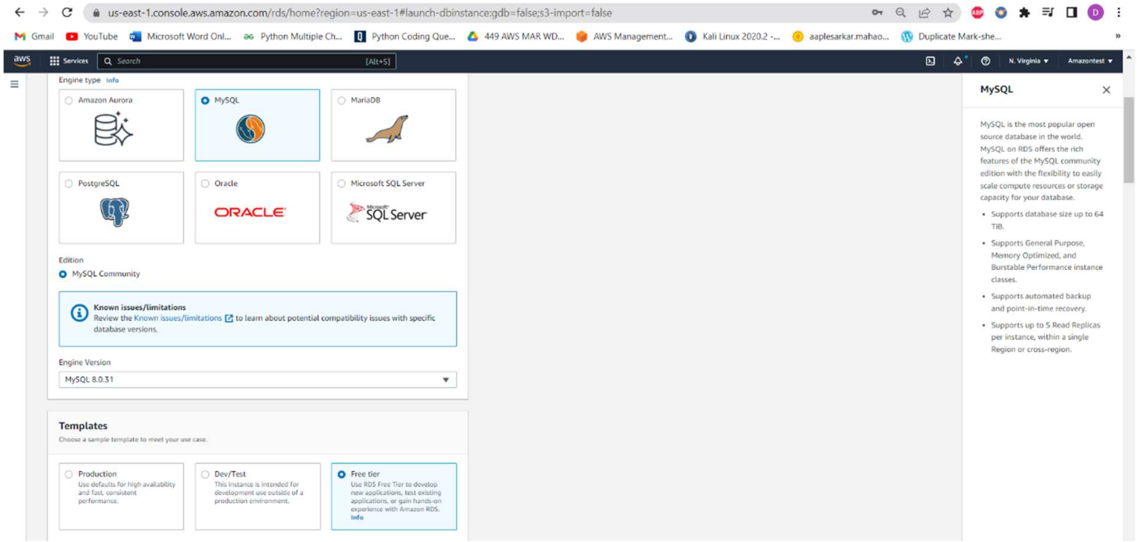
Availability Zones
Choose the Availability Zones that include the subnets you want to add.
us-east-1a, us-east-1b, us-east-1c

Subnets
Choose the subnets that you want to add. The list includes the subnets in the selected Availability Zones.
subnet-03461d05ef681b2ad (10.0.4.0/22)
subnet-0889dabb3916737ae (10.0.0.0/22)
subnet-085ba54c66141d080 (10.0.12.0/22)
subnet-0b091ab3a6c4c6f64 (10.0.8.0/22)

2. Go to the database section and click create database.

I. First select standard create method and select my-SQL dB engine

II. Select edition MY-SQL 8.0.31 and choose free tier templates.



us-east-1.console.aws.amazon.com/rds/home?region=us-east-1#launch-dbinstance:gdb=false;s3-import=false

Engine type
○ Amazon Aurora ● MySQL ○ MariaDB
○ PostgreSQL ○ Oracle ○ Microsoft SQL Server

Edition
● MySQL Community

Known issues/limitations
Review the Known issues/limitations to learn about potential compatibility issues with specific database versions.

Engine Version
MySQL 8.0.31

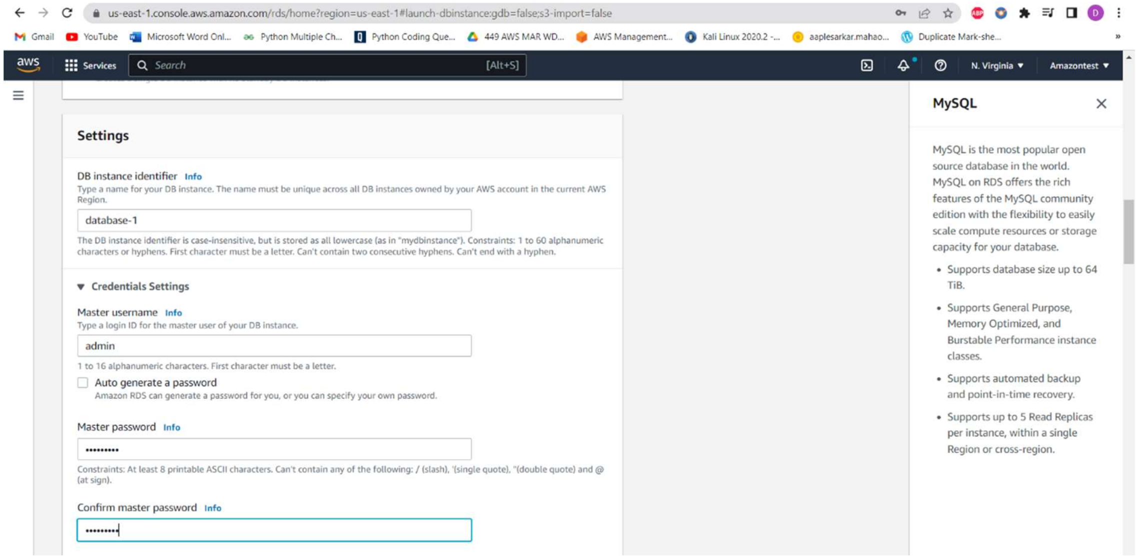
Templates
Choose a sample template to meet your use case.
○ Production — Use defaults for high availability and fast, consistent performance.
○ Dev/Test — This instance is intended for development use outside of a production environment.
● Free tier — Use RDS Free Tier to develop new applications, test existing applications, or gain hands-on experience with Amazon RDS. Info

MySQL

MySQL is the most popular open source database in the world. MySQL on RDS offers the rich features of the MySQL community edition with the flexibility to easily scale compute resources or storage capacity for your database.

- Supports database size up to 64 TiB.
- Supports General Purpose, Memory Optimized, and Burstable Performance instance classes.
- Supports automated backup and point-in-time recovery.
- Supports up to 5 Read Replicas per instance, within a single Region or cross-region.

III. Give username and password.



Settings

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

database-1

The DB instance identifier is case-insensitive, but is stored as all lowercase (as in "mydbinstance"). Constraints: 1 to 60 alphanumeric characters or hyphens. 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.

admin

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), '(single quote), "(double quote) and @ (at sign).

Confirm master password Info

•••••••••

MySQL ✕

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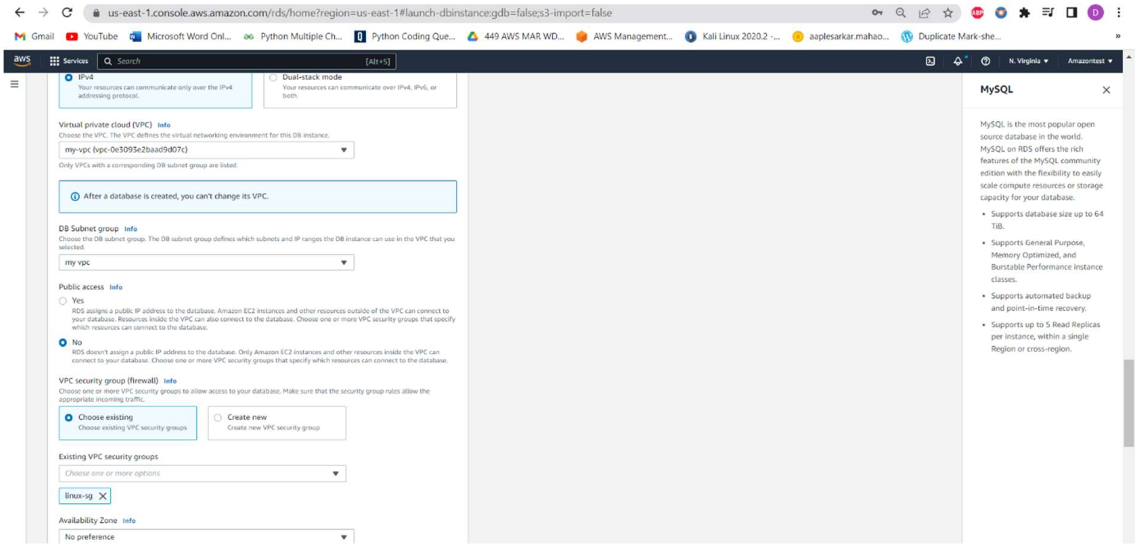
Iv. In instance Configuration select db.t2micro

v. change allocated storage 20 GiB and choose my VPC and also subnet group my VPC.

VI. choose Linux-sg security group



● IPv4
Your resources can communicate only over the IPv4 addressing protocol.

○ Dual-stack mode
Your resources can communicate over IPv4, IPv6, or both.

Virtual private cloud (VPC) Info
Choose the VPC. The VPC defines the virtual networking environment for this DB instance.

my-vpc (vpc-0e3093e2baad9d07c) ▼

Only VPCs with a corresponding DB subnet group are listed.

ⓘ After a database is created, you can't change its VPC.

DB Subnet group Info
Choose the DB subnet group. The DB subnet group defines which subnets and IP ranges the DB instance can use in the VPC that you selected.

my vpc ▼

Public access Info

○ Yes
RDS assigns a public IP address to the database. Amazon EC2 instances and other resources outside of the VPC can connect to your database. Resources inside the VPC can also connect to the database. Choose one or more VPC security groups that specify which resources can connect to the database.

● No
RDS doesn't assign a public IP address to the database. Only Amazon EC2 instances and other resources inside the VPC can connect to your database. Choose one or more VPC security groups that specify which resources can connect to the database.

VPC security group (firewall) Info
Choose one or more VPC security groups to allow access to your database. Make sure that the security group rules allow the appropriate incoming traffic.

● Choose existing
Choose existing VPC security groups

○ Create new
Create new VPC security group

Existing VPC security groups

Choose one or more options ▼

linux-sg ✕

Availability Zone Info

No preference ▼

MySQL ✕

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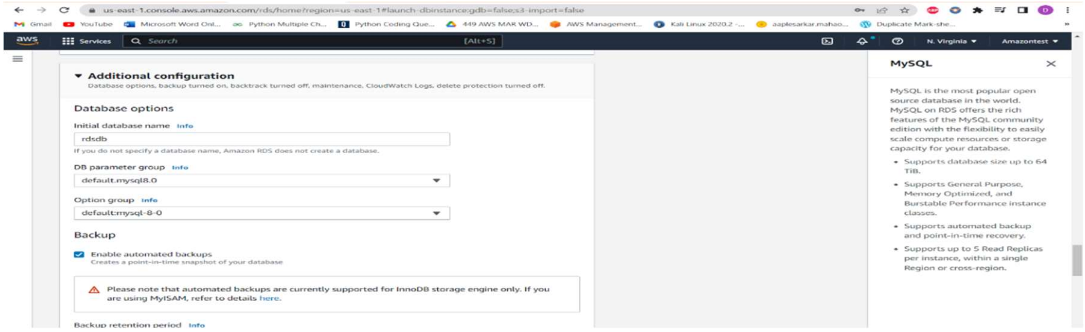
- Supports General Purpose, Memory Optimized, and Burstable Performance instance classes.
- Supports automated backup and point-in-time recovery.
- Supports up to 5 Read Replicas per instance, within a single Region or cross-region.

VII. In additional configuration create a database backup and uncheck the maintenance.



us-east-1.console.aws.amazon.com/rds/home?region=us-east-1#launch-dbinstance:gdb=false;s3-import=false

Additional configuration
Database options, backup turned on, backtrack turned off, maintenance, CloudWatch Logs, delete protection turned off.

Database options

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

DB parameter group Info
default.mysql8.0

Option group Info
default:mysql-8-0

Backup

☑ Enable automated backups
Creates a point-in-time snapshot of your database

Please note that automated backups are currently supported for InnoDB storage engine only. If you are using MyISAM, refer to details here.

Backup retention period Info

MySQL

MySQL is the most popular open source database in the world. MySQL on RDS offers the rich features of the MySQL community edition with the flexibility to easily scale compute resources or storage capacity for your database.

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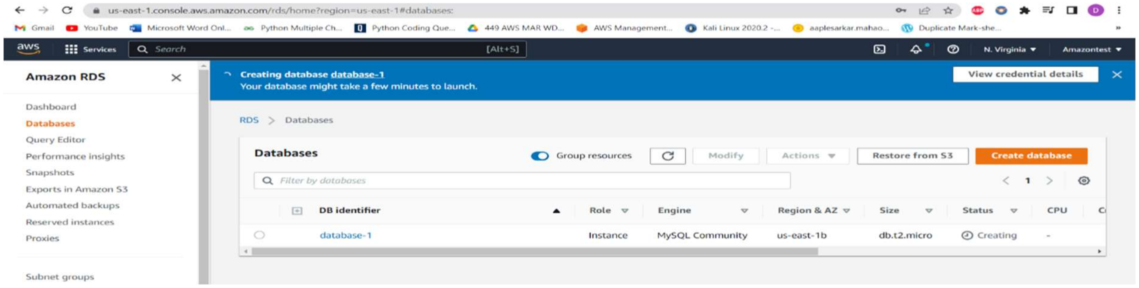
- Supports General Purpose, Memory Optimized, and Burstable Performance instance classes.
- Supports automated backup and point-in-time recovery.
- Supports up to 5 Read Replicas per instance, within a single Region or cross-region.

VIII. create database.



us-east-1.console.aws.amazon.com/rds/home?region=us-east-1#databases:

Creating database database-1
Your database might take a few minutes to launch.

RDS > Databases

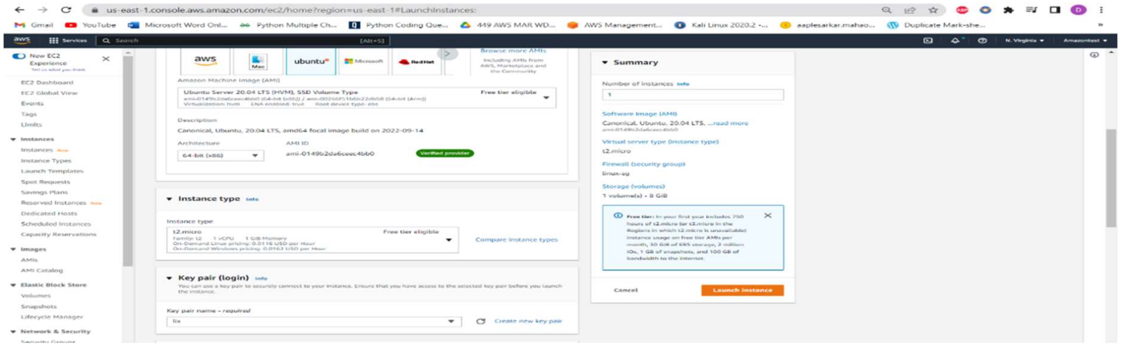
Databases

	DB identifier	Role	Engine	Region & AZ	Size	Status	CPU
○	database-1	Instance	MySQL Community	us-east-1b	db.t2.micro	Creating	-

2. Launch ubuntu instance.

I. Give name linux-1 server and choose ubuntu server 20.4 LTS free tier.

II. Instance type t2. micro select keypair lix.



us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#LaunchInstances:

Amazon Machine Image (AMI)
Ubuntu Server 20.04 LTS (HVM), SSD Volume Type — Free tier eligible
Virtualization: hvm ENA enabled: true Root device type: ebs

Description
Canonical, Ubuntu, 20.04 LTS, amd64 focal image build on 2022-09-14

Architecture
64-bit (x86)

AMI ID
ami-0149b2da6ceec4bb0

Verified provider

Instance type Info

Instance type
t2.micro — Free tier eligible
Family: t2 1 vCPU 1 GiB Memory
On-Demand Linux pricing: 0.0116 USD per Hour
On-Demand Windows pricing: 0.0162 USD per Hour

Key pair (login) Info

You can use a key pair to securely connect to your instance. Ensure that you have access to the selected key pair before you launch the instance.

Key pair name - required
lix

Summary

Number of instances Info
1

Software Image (AMI)
Canonical, Ubuntu, 20.04 LTS, ...read more
ami-0149b2da6ceec4bb0

Virtual server type (instance type)
t2.micro

Firewall (security group)
linux-sg

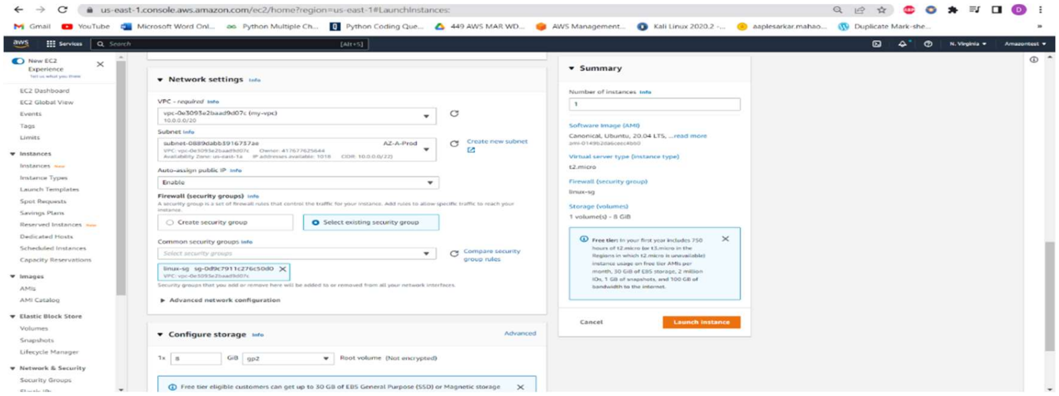
Storage (volumes)
1 volume(s) - 8 GiB

Free tier: In your first year includes 750 hours of t2.micro (or t3.micro in the Regions in which t2.micro is unavailable) instance usage on free tier AMIs per month, 30 GiB of EBS storage, 2 million IOs, 1 GB of snapshots, and 100 GB of bandwidth to the internet.

III. In network settings select my VPC and choose subnet AZ-A-Prod

Iv. Select existing security group Linux-sg

v. Launch instance



us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#LaunchInstances:

Network settings

VPC - required: vpc-0e3093e2baad9d07c (my-vpc) 10.0.0.0/20

Subnet: subnet-0889dabb3916737ae AZ-A-Prod
VPC: vpc-0e3093e2baad9d07c Owner: 417677625644
Availability Zone: us-east-1a IP addresses available: 1018 CIDR: 10.0.0.0/22)

Auto-assign public IP: Enable

Firewall (security groups): A security group is a set of firewall rules that control the traffic for your instance. Add rules to allow specific traffic to reach your instance.

○ Create security group ● Select existing security group

Common security groups: linux-sg sg-0d9c7911c276c50d0 VPC: vpc-0e3093e2baad9d07c

Security groups that you add or remove here will be added to or removed from all your network interfaces.

Configure storage: 1x 8 GiB gp2 Root volume (Not encrypted)

Free tier eligible customers can get up to 30 GB of EBS General Purpose (SSD) or Magnetic storage

Summary

Number of instances: 1

Software Image (AMI): Canonical, Ubuntu, 20.04 LTS, ...read more

Virtual server type (instance type): t2.micro

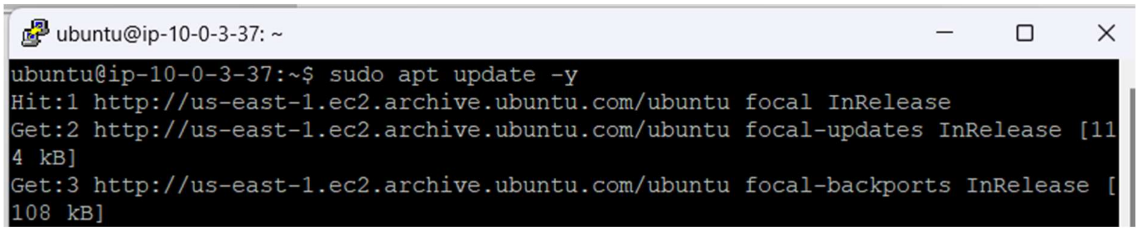
Firewall (security group): linux-sg

Storage (volumes): 1 volume(s) - 8 GiB

Free tier: In your first year includes 750 hours of t2.micro (or t3.micro in the Regions in which t2.micro is unavailable) instance usage on free tier AMIs per month, 30 GiB of EBS storage, 2 million IOs, 1 GB of snapshots, and 100 GB of bandwidth to the internet.

3. Copy IPv4 and log in to the server.

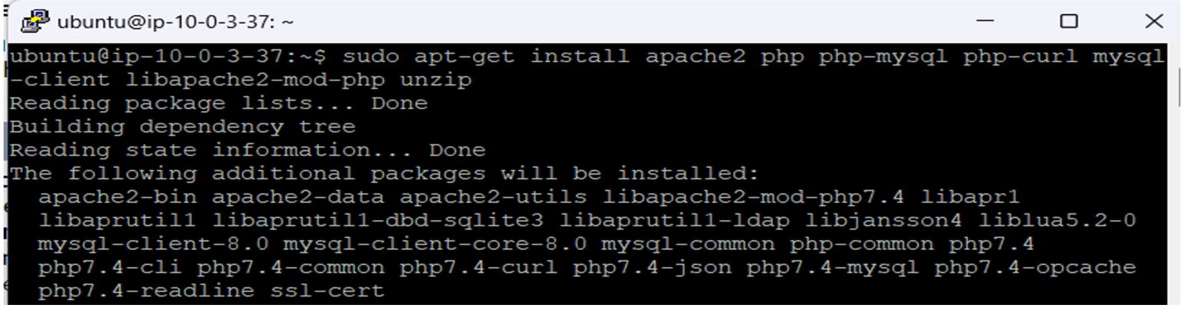
I. Sudo apt update



ubuntu@ip-10-0-3-37: ~

```
ubuntu@ip-10-0-3-37:~$ sudo apt update -y
Hit:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu focal InRelease
Get:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu focal-updates InRelease [11
4 kB]
Get:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu focal-backports InRelease [
108 kB]
```

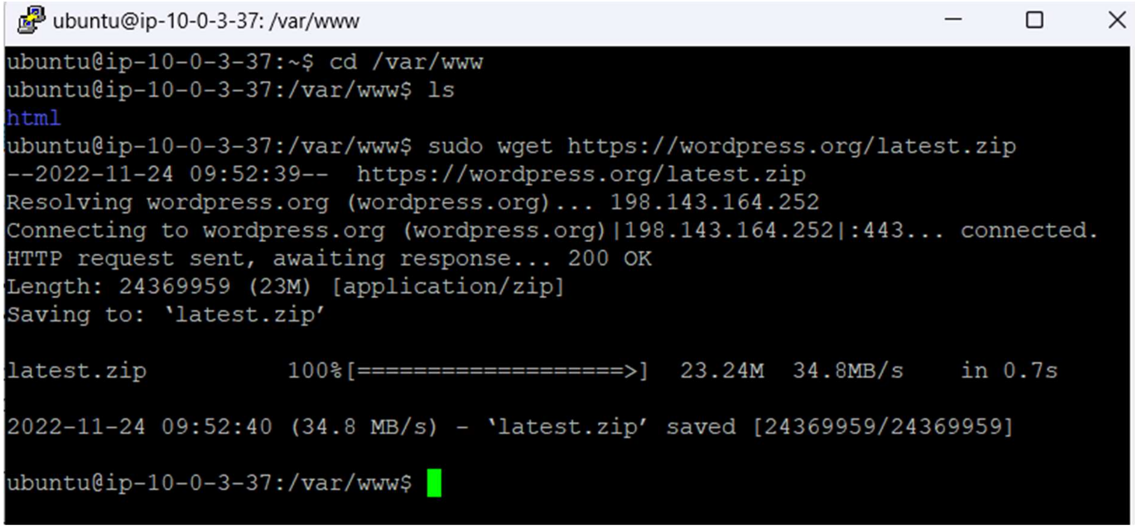
II. Install the apache2, PHP and MY-SQL.



ubuntu@ip-10-0-3-37: ~

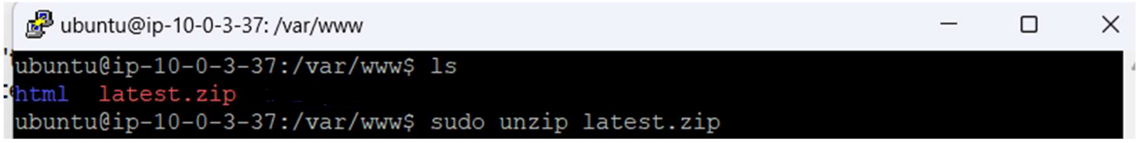
```
ubuntu@ip-10-0-3-37:~$ sudo apt-get install apache2 php php-mysql php-curl mysql
-client libapache2-mod-php unzip
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  apache2-bin apache2-data apache2-utils libapache2-mod-php7.4 libapr1
  libaprutil1 libaprutil1-dbd-sqlite3 libaprutil1-ldap libjansson4 liblua5.2-0
  mysql-client-8.0 mysql-client-core-8.0 mysql-common php-common php7.4
  php7.4-cli php7.4-common php7.4-curl php7.4-json php7.4-mysql php7.4-opcache
  php7.4-readline ssl-cert
```

III. Go to directory location and install WordPress.



```
ubuntu@ip-10-0-3-37:~$ cd /var/www
ubuntu@ip-10-0-3-37:/var/www$ ls
html
ubuntu@ip-10-0-3-37:/var/www$ sudo wget https://wordpress.org/latest.zip
--2022-11-24 09:52:39--  https://wordpress.org/latest.zip
Resolving wordpress.org (wordpress.org)... 198.143.164.252
Connecting to wordpress.org (wordpress.org)|198.143.164.252|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 24369959 (23M) [application/zip]
Saving to: ‘latest.zip’

latest.zip          100%[===================>]  23.24M  34.8MB/s    in 0.7s

2022-11-24 09:52:40 (34.8 MB/s) - ‘latest.zip’ saved [24369959/24369959]

ubuntu@ip-10-0-3-37:/var/www$
```

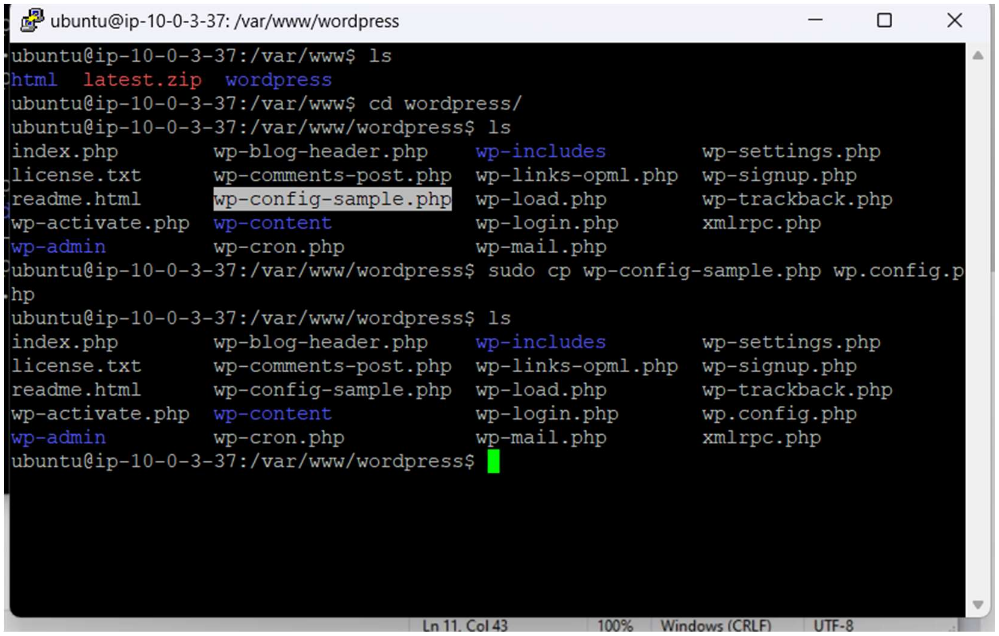
IV. unzip the WordPress file.



```
ubuntu@ip-10-0-3-37:/var/www$ ls
html  latest.zip
ubuntu@ip-10-0-3-37:/var/www$ sudo unzip latest.zip
```

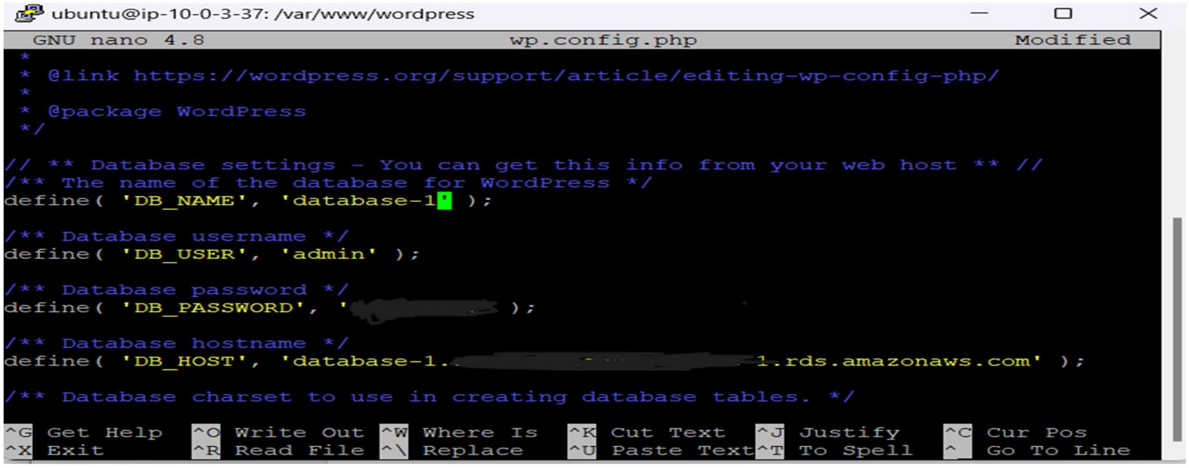
V. Copy the Wp-configuration file and edit.

I. ls and Sudo cp wp-config-sample.php wp.config.php



```
ubuntu@ip-10-0-3-37:/var/www$ ls
html  latest.zip  wordpress
ubuntu@ip-10-0-3-37:/var/www$ cd wordpress/
ubuntu@ip-10-0-3-37:/var/www/wordpress$ ls
index.php        wp-blog-header.php    wp-includes        wp-settings.php
license.txt      wp-comments-post.php  wp-links-opml.php  wp-signup.php
readme.html      wp-config-sample.php  wp-load.php        wp-trackback.php
wp-activate.php  wp-content            wp-login.php       xmlrpc.php
wp-admin         wp-cron.php           wp-mail.php
ubuntu@ip-10-0-3-37:/var/www/wordpress$ sudo cp wp-config-sample.php wp.config.p
hp
ubuntu@ip-10-0-3-37:/var/www/wordpress$ ls
index.php        wp-blog-header.php    wp-includes        wp-settings.php
license.txt      wp-comments-post.php  wp-links-opml.php  wp-signup.php
readme.html      wp-config-sample.php  wp-load.php        wp-trackback.php
wp-activate.php  wp-content            wp-login.php       wp.config.php
wp-admin         wp-cron.php           wp-mail.php        xmlrpc.php
ubuntu@ip-10-0-3-37:/var/www/wordpress$
```

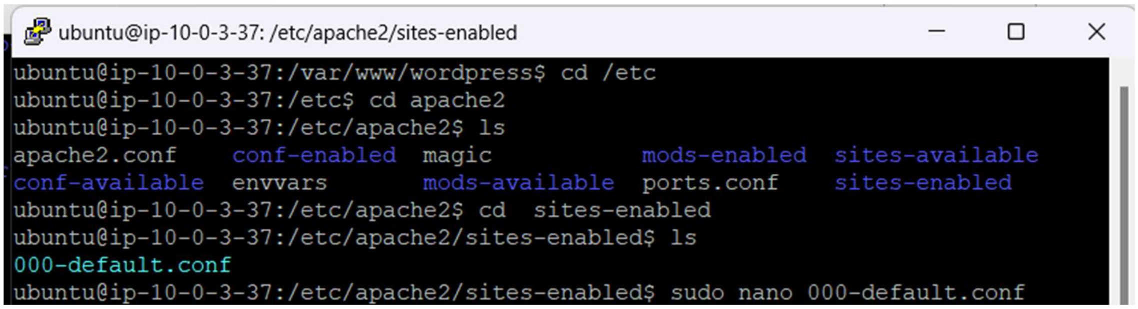
II. Edit the wp-config.php and add database name, username, password, database connectivity endpoint.



```
ubuntu@ip-10-0-3-37: /var/www/wordpress
  GNU nano 4.8                    wp.config.php                       Modified
 *
 * @link https://wordpress.org/support/article/editing-wp-config-php/
 *
 * @package WordPress
 */

// ** Database settings - You can get this info from your web host ** //
/** The name of the database for WordPress */
define( 'DB_NAME', 'database-1' );

/** Database username */
define( 'DB_USER', 'admin' );

/** Database password */
define( 'DB_PASSWORD', '[redacted]' );

/** Database hostname */
define( 'DB_HOST', 'database-1.[redacted]1.rds.amazonaws.com' );

/** Database charset to use in creating database tables. */

^G Get Help  ^O Write Out ^W Where Is  ^K Cut Text  ^J Justify   ^C Cur Pos
^X Exit      ^R Read File ^\ Replace   ^U Paste Text^T To Spell  ^_ Go To Line
```

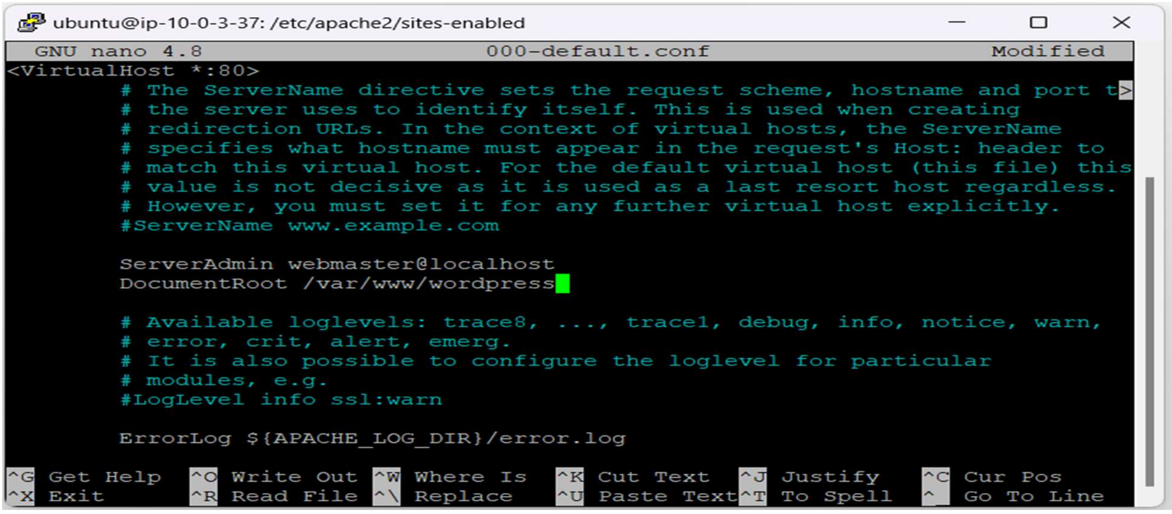
III. Then go insdie the /etc folder and select the apache2 folder

IV In apache2 folder go to the site-enabled



```
ubuntu@ip-10-0-3-37: /etc/apache2/sites-enabled
ubuntu@ip-10-0-3-37:/var/www/wordpress$ cd /etc
ubuntu@ip-10-0-3-37:/etc$ cd apache2
ubuntu@ip-10-0-3-37:/etc/apache2$ ls
apache2.conf    conf-enabled  magic           mods-enabled  sites-available
conf-available  envvars       mods-available  ports.conf    sites-enabled
ubuntu@ip-10-0-3-37:/etc/apache2$ cd  sites-enabled
ubuntu@ip-10-0-3-37:/etc/apache2/sites-enabled$ ls
000-default.conf
ubuntu@ip-10-0-3-37:/etc/apache2/sites-enabled$ sudo nano 000-default.conf
```

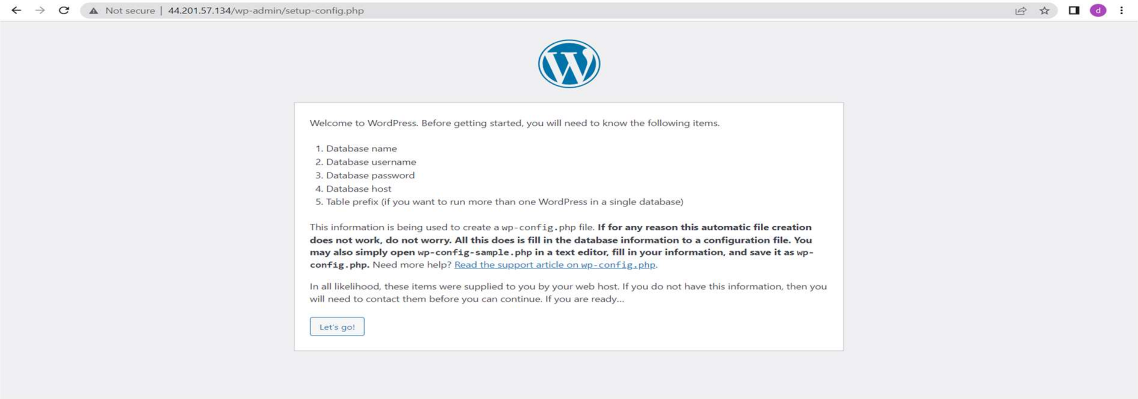
V. Edit the file and remove html file and add worpress



```
ubuntu@ip-10-0-3-37: /etc/apache2/sites-enabled
  GNU nano 4.8                  000-default.conf                      Modified
<VirtualHost *:80>
        # The ServerName directive sets the request scheme, hostname and port t>
        # the server uses to identify itself. This is used when creating
        # redirection URLs. In the context of virtual hosts, the ServerName
        # specifies what hostname must appear in the request's Host: header to
        # match this virtual host. For the default virtual host (this file) this
        # value is not decisive as it is used as a last resort host regardless.
        # However, you must set it for any further virtual host explicitly.
        #ServerName www.example.com

        ServerAdmin webmaster@localhost
        DocumentRoot /var/www/wordpress

        # Available loglevels: trace8, ..., trace1, debug, info, notice, warn,
        # error, crit, alert, emerg.
        # It is also possible to configure the loglevel for particular
        # modules, e.g.
        #LogLevel info ssl:warn

        ErrorLog ${APACHE_LOG_DIR}/error.log

^G Get Help  ^O Write Out ^W Where Is  ^K Cut Text  ^J Justify   ^C Cur Pos
^X Exit      ^R Read File ^\ Replace   ^U Paste Text^T To Spell  ^_ Go To Line
```

VI. Restart the apache2 service.

Sudo service apache2 restart



Not secure | 44.201.57.134/wp-admin/setup-config.php

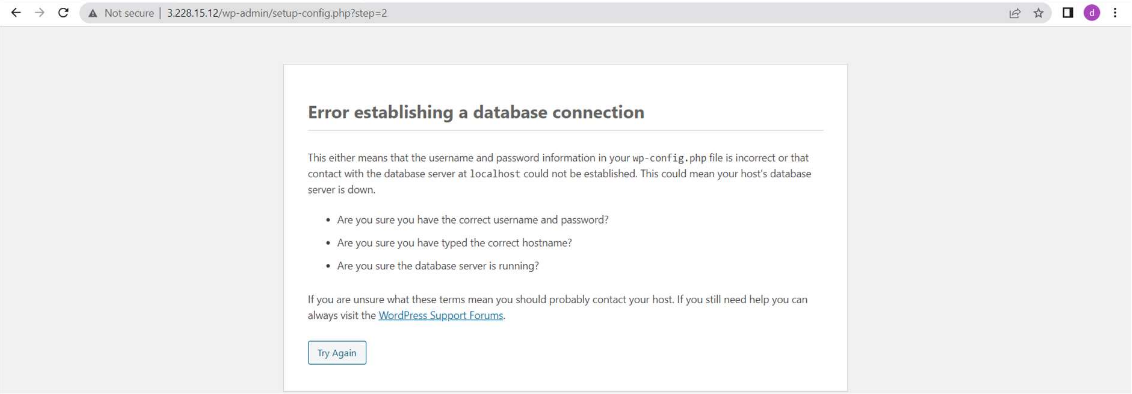
Welcome to WordPress. Before getting started, you will need to know the following items.

1. Database name
2. Database username
3. Database password
4. Database host
5. Table prefix (if you want to run more than one WordPress in a single database)

This information is being used to create a `wp-config.php` file. **If for any reason this automatic file creation does not work, do not worry. All this does is fill in the database information to a configuration file. You may also simply open `wp-config-sample.php` in a text editor, fill in your information, and save it as `wp-config.php`.** Need more help? Read the support article on `wp-config.php`.

In all likelihood, these items were supplied to you by your web host. If you do not have this information, then you will need to contact them before you can continue. If you are ready…

4. when you put the details and log you get database error.



Not secure | 3.228.15.12/wp-admin/setup-config.php?step=2

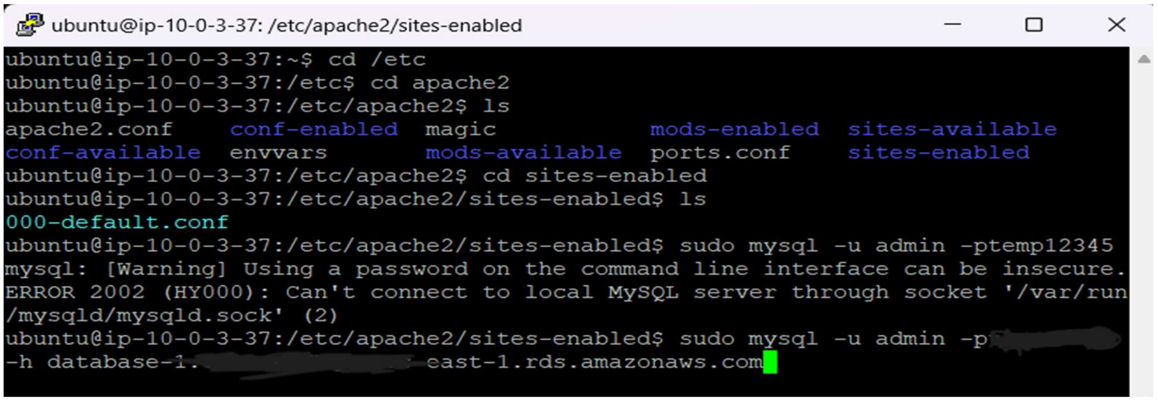
Error establishing a database connection

This either means that the username and password information in your `wp-config.php` file is incorrect or that contact with the database server at `localhost` could not be established. This could mean your host's database server is down.

- Are you sure you have the correct username and password?
- Are you sure you have typed the correct hostname?
- Are you sure the database server is running?

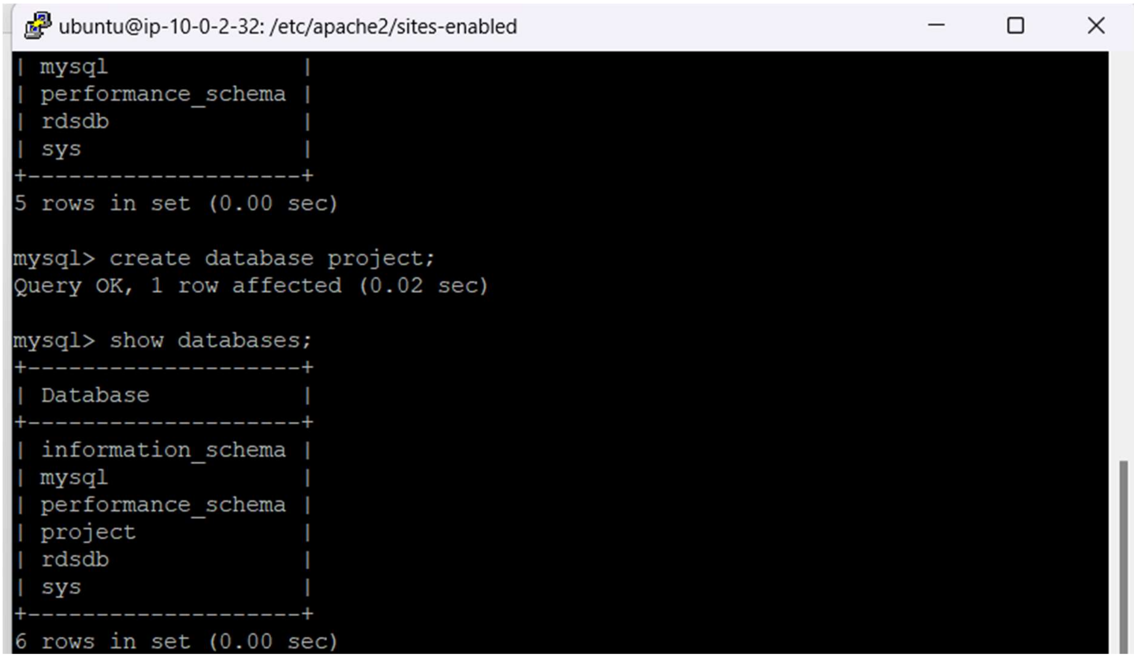
If you are unsure what these terms mean you should probably contact your host. If you still need help you can always visit the WordPress Support Forums.

5. Open database give user name and password and copy rdsdb endpoint and paste connect database.



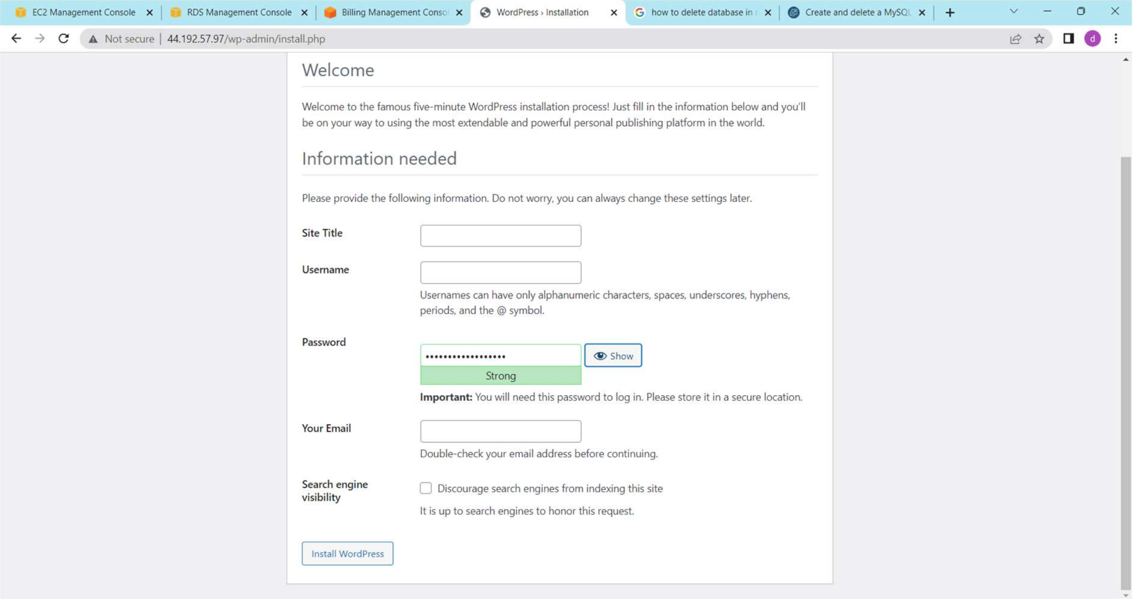
```
ubuntu@ip-10-0-3-37:~$ cd /etc
ubuntu@ip-10-0-3-37:/etc$ cd apache2
ubuntu@ip-10-0-3-37:/etc/apache2$ ls
apache2.conf    conf-enabled  magic           mods-enabled  sites-available
conf-available  envvars       mods-available  ports.conf    sites-enabled
ubuntu@ip-10-0-3-37:/etc/apache2$ cd sites-enabled
ubuntu@ip-10-0-3-37:/etc/apache2/sites-enabled$ ls
000-default.conf
ubuntu@ip-10-0-3-37:/etc/apache2/sites-enabled$ sudo mysql -u admin -ptemp12345
mysql: [Warning] Using a password on the command line interface can be insecure.
ERROR 2002 (HY000): Can't connect to local MySQL server through socket '/var/run
/mysqld/mysqld.sock' (2)
ubuntu@ip-10-0-3-37:/etc/apache2/sites-enabled$ sudo mysql -u admin -p[redacted]
-h database-1.[redacted]east-1.rds.amazonaws.com
```

I. create database Project.



```
| mysql              |
| performance_schema |
| rdsdb              |
| sys                |
+--------------------+
5 rows in set (0.00 sec)

mysql> create database project;
Query OK, 1 row affected (0.02 sec)

mysql> show databases;
+--------------------+
| Database           |
+--------------------+
| information_schema |
| mysql              |
| performance_schema |
| project            |
| rdsdb              |
| sys                |
+--------------------+
6 rows in set (0.00 sec)
```

II. After creating database project and WordPress error will be solved.Fill the details and install the WordPress.



EC2 Management Console
RDS Management Console
Billing Management Conso
WordPress › Installation
how to delete database in
Create and delete a MySQL
Not secure | 44.192.57.97/wp-admin/install.php

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 ••••••••••••••••••• Show

Strong

Important: You will need this password to log in. Please store it in a secure location.

Your Email

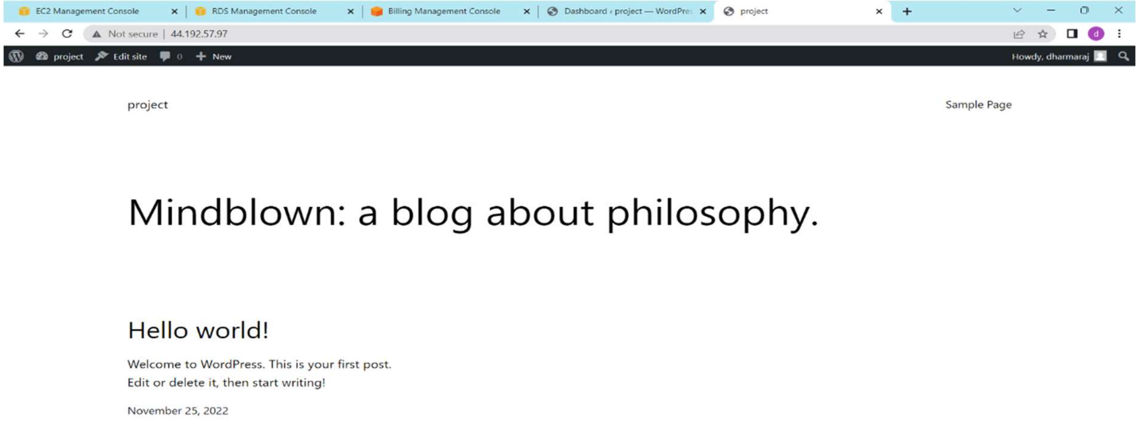
Double-check your email address before continuing.

Search engine visibility □ Discourage search engines from indexing this site

It is up to search engines to honor this request.

Install WordPress

III. Log in to WordPress.



project

Sample Page

Mindblown: a blog about philosophy.

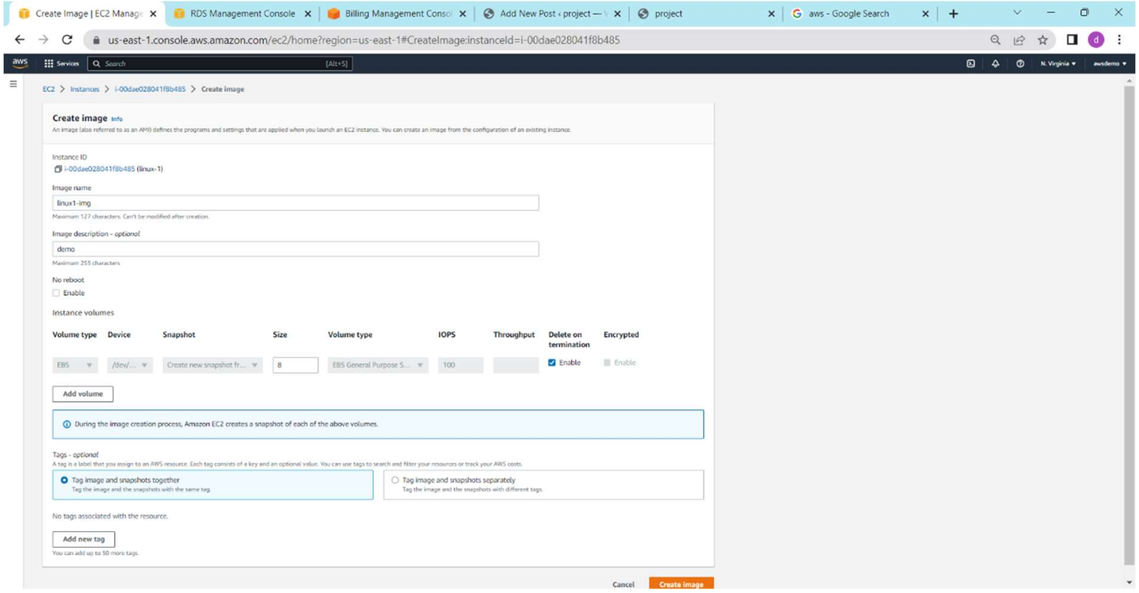
Hello world!

Welcome to WordPress. This is your first post.
Edit or delete it, then start writing!

November 25, 2022

6. Create an image AMI Image for the Linux instance.

Give the name of image and description and click on the create image button


Create Image | EC2 Manage
RDS Management Console
Billing Management Consol
Add New Post ‹ project —
project
aws - Google Search
us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#CreateImage:instanceId=i-00dae028041f8b485
Services
Search
[Alt+S]
N. Virginia
awsdemo
EC2 > Instances > i-00dae028041f8b485 > Create image

Create image Info

An image (also referred to as an AMI) defines the programs and settings that are applied when you launch an EC2 instance. You can create an image from the configuration of an existing instance.

Instance ID
i-00dae028041f8b485 (linux-1)

Image name
linux1-img
Maximum 127 characters. Can't be modified after creation.

Image description - *optional*
demo
Maximum 255 characters

No reboot
□ Enable

Instance volumes

Volume type	Device	Snapshot	Size	Volume type	IOPS	Throughput	Delete on termination	Encrypted
EBS	/dev/...	Create new snapshot fr...	8	EBS General Purpose S...	100		☑ Enable	□ Enable

Add volume

During the image creation process, Amazon EC2 creates a snapshot of each of the above volumes.

Tags - *optional*
A tag is a label that you assign to an AWS resource. Each tag consists of a key and an optional value. You can use tags to search and filter your resources or track your AWS costs.

● Tag image and snapshots together
Tag the image and the snapshots with the same tag.

○ Tag image and snapshots separately
Tag the image and the snapshots with different tags.

No tags associated with the resource.

Add new tag
You can add up to 50 more tags.

Cancel Create image

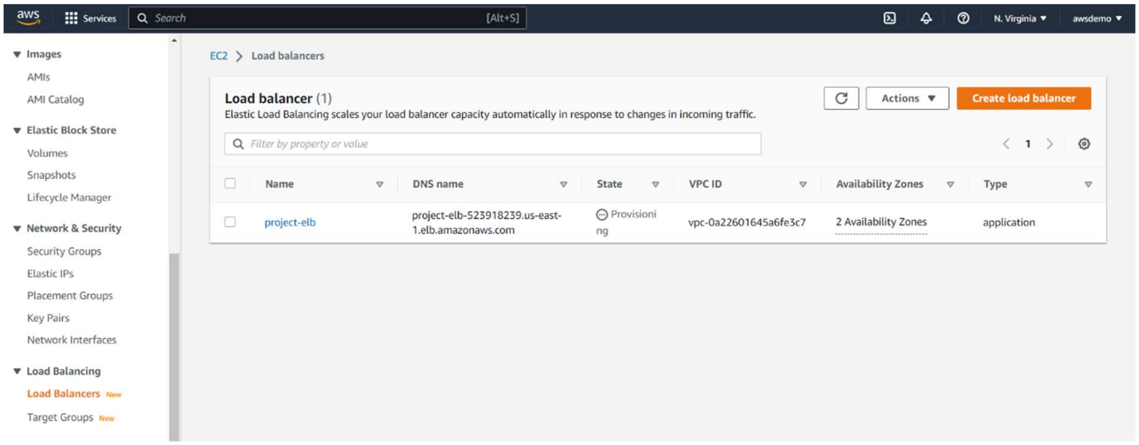
7. Create Application load balancer.

I. Give the name load balancer project-elb.

II. Select my VPC and Availability Zones.

III. Select security group and create target group.

IV. create Load Balancer.

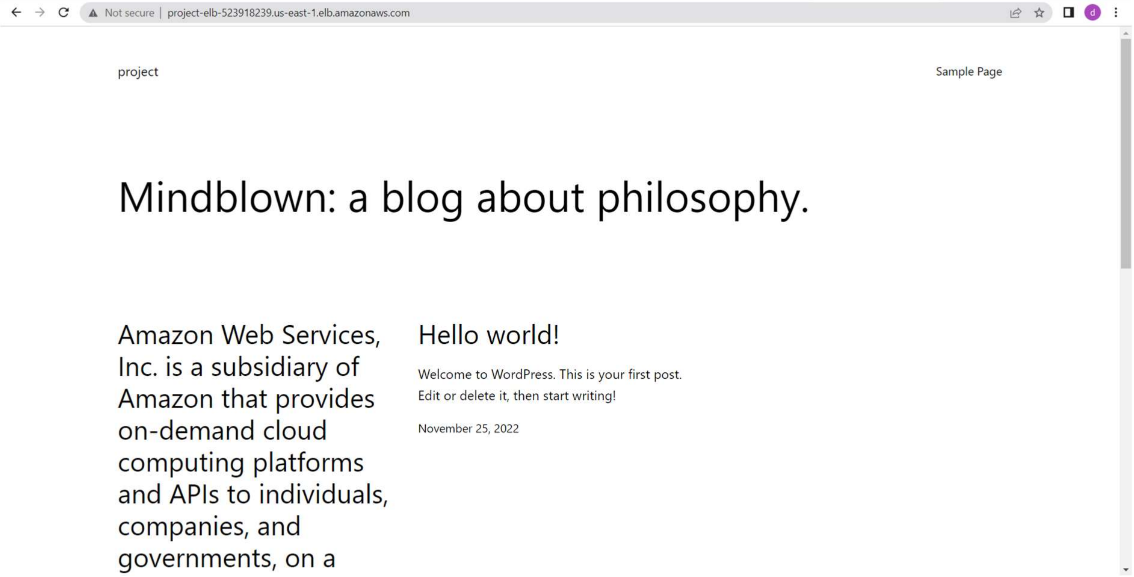


Load balancer (1)

Elastic Load Balancing scales your load balancer capacity automatically in response to changes in incoming traffic.

□	Name	DNS name	State	VPC ID	Availability Zones	Type
□	project-elb	project-elb-523918239.us-east-1.elb.amazonaws.com	Provisioning	vpc-0a22601645a6fe3c7	2 Availability Zones	application

V. After activation of load balancer copy the DNS name and paste check it's working.


Not secure | project-elb-523918239.us-east-1.elb.amazonaws.com
project
Sample Page

Mindblown: a blog about philosophy.

Amazon Web Services, Inc. is a subsidiary of Amazon that provides on-demand cloud computing platforms and APIs to individuals, companies, and governments, on a

Hello world!

Welcome to WordPress. This is your first post. Edit or delete it, then start writing!

November 25, 2022

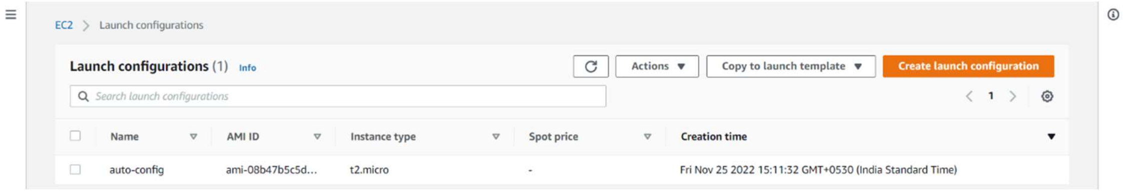
8. Create Autoscaling Group for the instance.

I. Go to the Autoscaling and create Launch configuration.

II. give a name auto-config choose linux1-img AMI and Select t2. micro instance type

III. Select existing security group my-sg and existing keypair linux.ppk.

IV. Click on the acknowledge check box and create launch configuration.


EC2 > Launch configurations
Launch configurations (1) Info
Actions
Copy to launch template
Create launch configuration
Search launch configurations

□	Name	AMI ID	Instance type	Spot price	Creation time
□	auto-config	ami-08b47b5c5d...	t2.micro	-	Fri Nov 25 2022 15:11:32 GMT+0530 (India Standard Time)

V. Select the auto-config and go to action select create autoscaling group.

VI. Give name auto-group and select auto-config. Click on the next button.

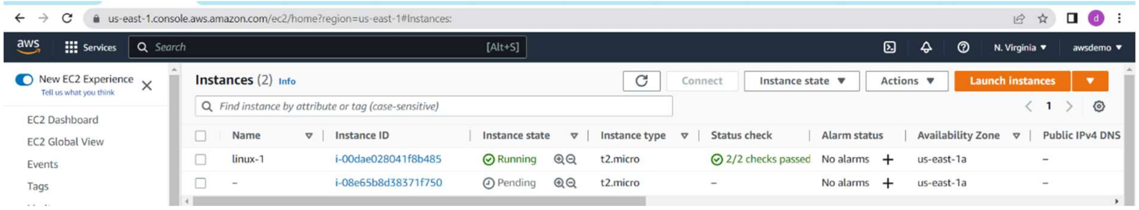
VII. Select VPC my-VPC and Availability zone and subnets.

VIII. Next attach to an existing load balancer select target group tg and enabled monitoring.

IX. Next decide the group size capacity min and max 3

X. next and next after that Review the group and create auto-scaling group.

XI. After creating auto-scaling group in EC2 instance add another one instance automatically.



□	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS
□	linux-1	i-00dae028041f8b485	Running	t2.micro	2/2 checks passed	No alarms	us-east-1a	–
□	–	i-08e65b8d38371f750	Pending	t2.micro	–	No alarms	us-east-1a	–

XII. After instance launch attach to the auto-scaling group.

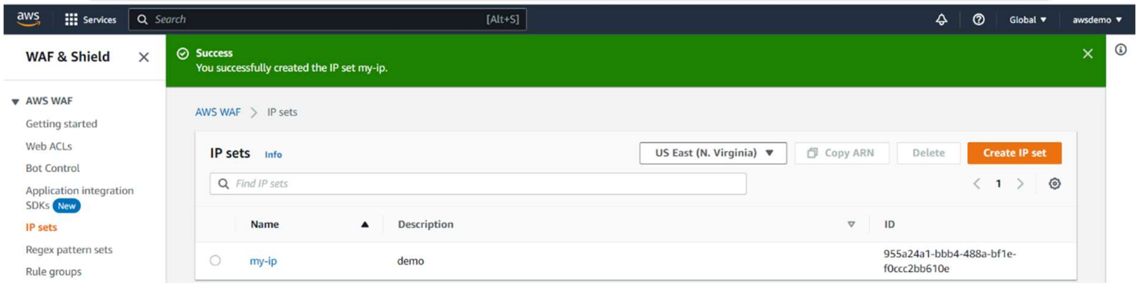
9. Develop the Security

I. Go to the console and Search WAF & Shield.

II. We have to set the IP and go to IP Set First select the Region where you work

III. Then click on the create IP set and Give name my-Ip Give description.

Iv. Copy the all subnets IPv4 and paste Ip Addresses. Create IP set

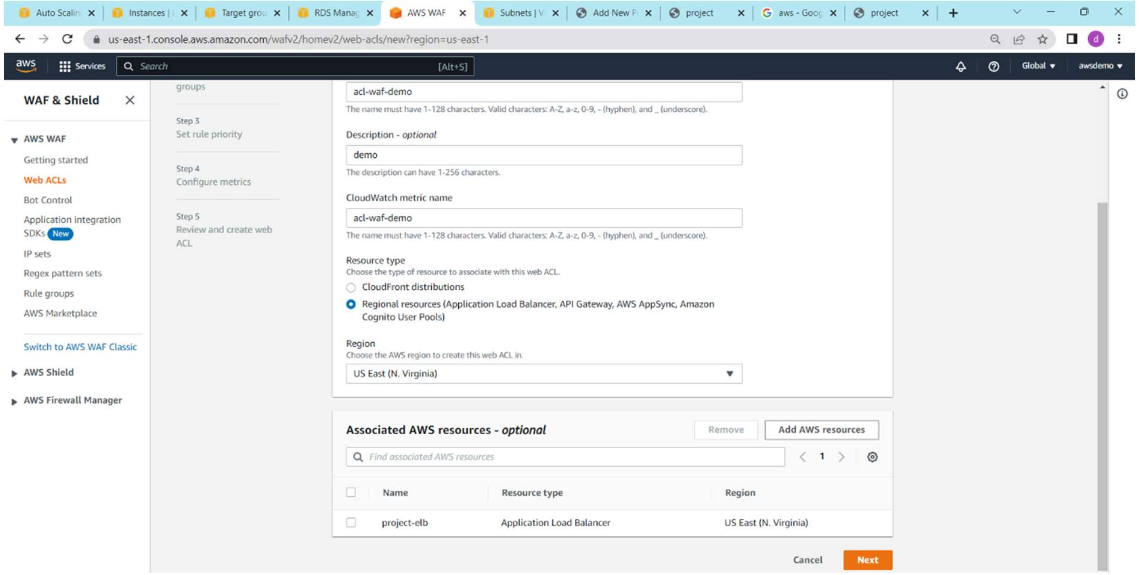


Success
You successfully created the IP set my-ip.

	Name	Description	ID
○	my-ip	demo	955a24a1-bbb4-488a-bf1e-f0ccc2bb610e

V. Then go to the web ACLs check region and create Web ACLs.

VI. Give name acl-waf-demo and add aws resources.



us-east-1.console.aws.amazon.com/wafv2/homev2/web-acls/new?region=us-east-1

acl-waf-demo

The name must have 1-128 characters. Valid characters: A-Z, a-z, 0-9, - (hyphen), and _ (underscore).

Description - *optional*

demo

The description can have 1-256 characters.

CloudWatch metric name

acl-waf-demo

The name must have 1-128 characters. Valid characters: A-Z, a-z, 0-9, - (hyphen), and _ (underscore).

Resource type

Choose the type of resource to associate with this web ACL.

○ CloudFront distributions

● Regional resources (Application Load Balancer, API Gateway, AWS AppSync, Amazon Cognito User Pools)

Region

Choose the AWS region to create this web ACL in.

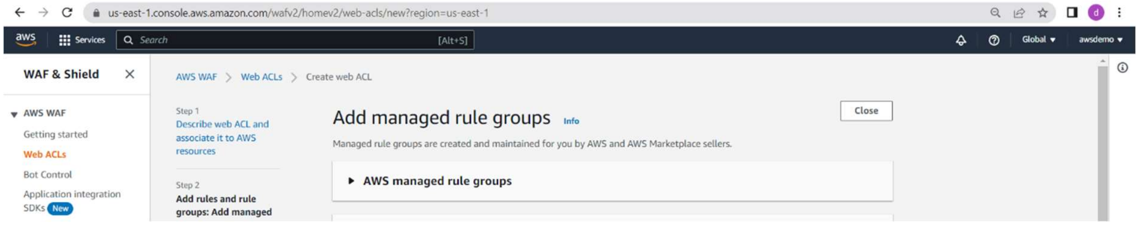
US East (N. Virginia)

Associated AWS resources - *optional*

Name	Resource type	Region
project-elb	Application Load Balancer	US East (N. Virginia)

VII. Next Add rules and rule groups.

VIII. Select manage rule and rule groups.



us-east-1.console.aws.amazon.com/wafv2/homev2/web-acls/new?region=us-east-1

Add managed rule groups

Managed rule groups are created and maintained for you by AWS and AWS Marketplace sellers.

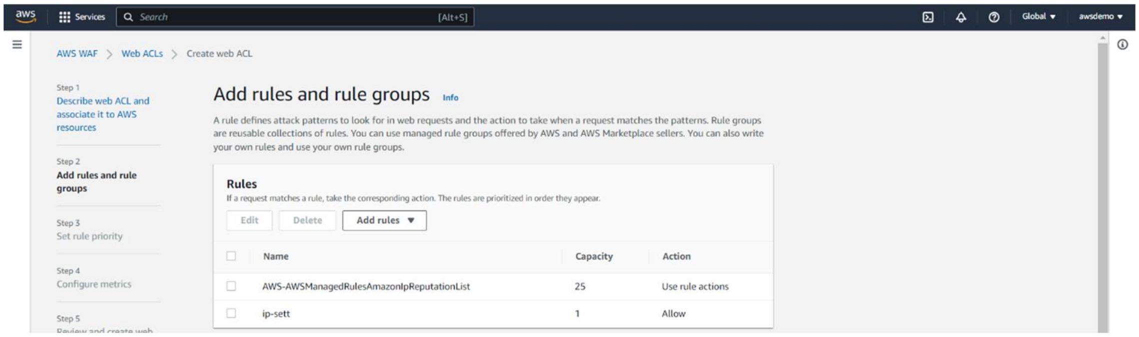
WAF & Shield
AWS WAF
Getting started
Web ACLs
Bot Control
Application integration SDKs New
AWS WAF > Web ACLs > Create web ACL
Step 1
Describe web ACL and associate it to AWS resources
Step 2
Add rules and rule groups: Add managed
Info
Close
AWS managed rule groups

IX. Scroll down Free rule group and choose amazon Ip reputation list. Add rules

X. Create second rule select Add my own rules and rule group.

XI. Select Rule type IP set and Give name IP-sett.

XII. Choose Ip set my-IP. Action allows and Add rule.



Add rules and rule groups

A rule defines attack patterns to look for in web requests and the action to take when a request matches the patterns. Rule groups are reusable collections of rules. You can use managed rule groups offered by AWS and AWS Marketplace sellers. You can also write your own rules and use your own rule groups.

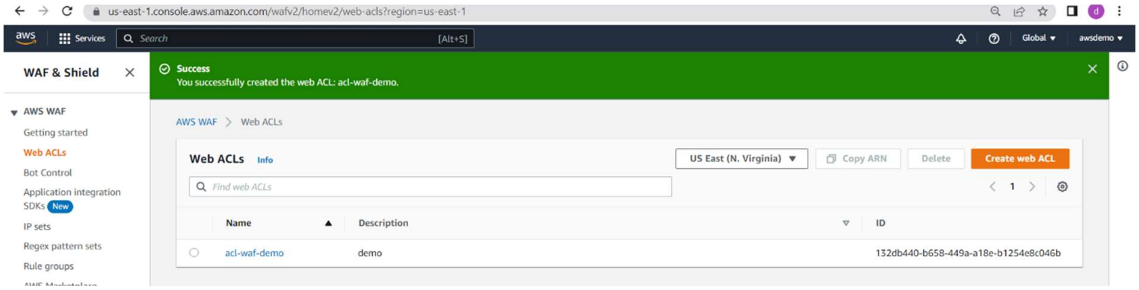
Rules

If a request matches a rule, take the corresponding action. The rules are prioritized in order they appear.

Name	Capacity	Action
AWS-AWSManagedRulesAmazonIpReputationList	25	Use rule actions
ip-sett	1	Allow

AWS WAF > Web ACLs > Create web ACL
Step 1
Describe web ACL and associate it to AWS resources
Step 2
Add rules and rule groups
Step 3
Set rule priority
Step 4
Configure metrics
Step 5
Info
Edit
Delete
Add rules

XIII. step-3 next step-4 next and Review and create web acl.



us-east-1.console.aws.amazon.com/wafv2/homev2/web-acls?region=us-east-1

Success
You successfully created the web ACL: acl-waf-demo.

AWS WAF > Web ACLs

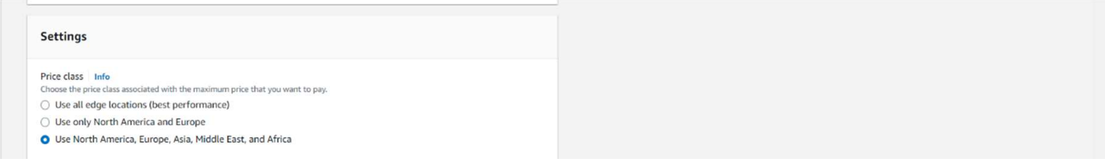
Web ACLs Info

	Name	Description	ID
○	acl-waf-demo	demo	132db440-b658-449a-a18e-b1254e8c046b

10. Create CloudFront distribution.

I. Go to the CloudFront service and click on the create distribution.

II. Select load balancer project-elb in origin and in setting choose 3rd option.

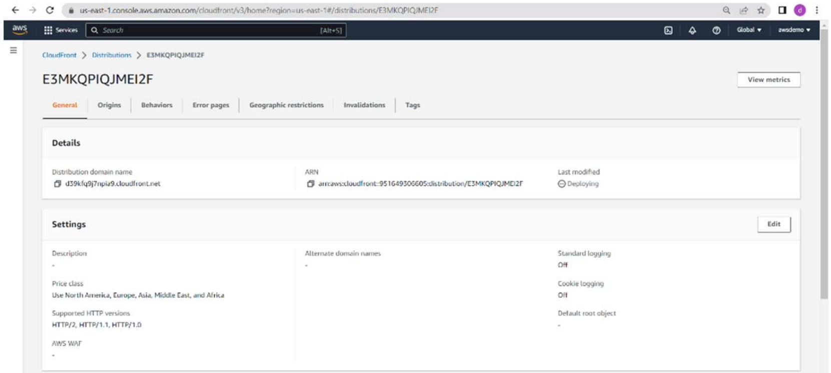


Settings

Price class Info
Choose the price class associated with the maximum price that you want to pay.

○ Use all edge locations (best performance)
○ Use only North America and Europe
● Use North America, Europe, Asia, Middle East, and Africa

III. Create distribution and copy the domain name and paste in browser.



us-east-1.console.aws.amazon.com/cloudfront/v3/home?region=us-east-1#/distributions/E3MKQPIQJMEI2F

CloudFront > Distributions > E3MKQPIQJMEI2F

E3MKQPIQJMEI2F

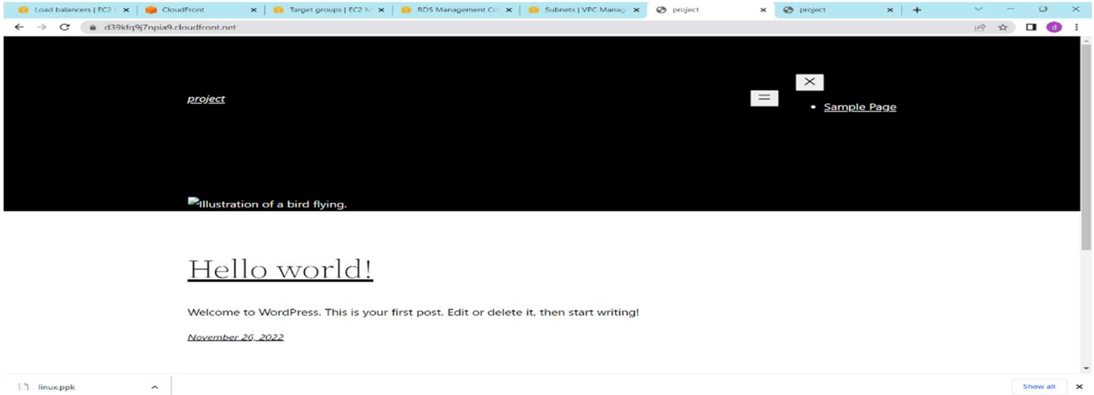
Details

Distribution domain name: d39kfq9j7npia9.cloudfront.net
ARN: arn:aws:cloudfront::951649306605:distribution/E3MKQPIQJMEI2F
Last modified: Deploying

Settings

Description: -
Alternate domain names: -
Standard logging: Off
Price class: Use North America, Europe, Asia, Middle East, and Africa
Cookie logging: Off
Supported HTTP versions: HTTP/2, HTTP/1.1, HTTP/1.0
Default root object: -
AWS WAF: -

IV. Here you will be getting the final output.



d39kfq9j7npia9.cloudfront.net

project

- Sample Page

Illustration of a bird flying.

Hello world!

Welcome to WordPress. This is your first post. Edit or delete it, then start writing!

November 26, 2022