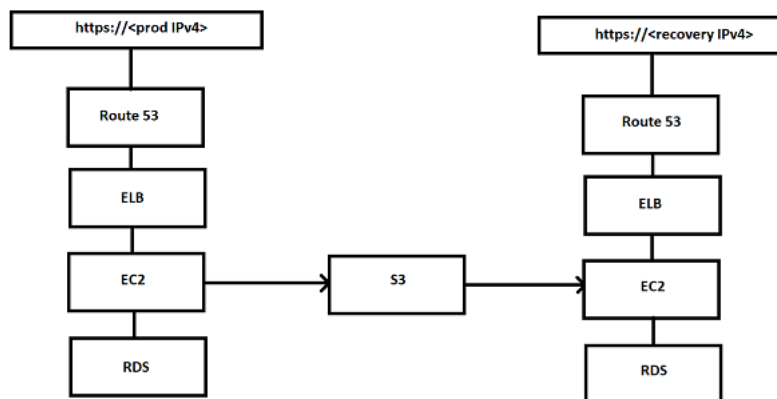


## \*Highly availability of WordPress Application Deployment using AWS service like EC2, RDS, S3, Route-53\*

### Project Architecture:



### POV:

1. Create two EC2 instance in different Availability Zones.
2. Create an RDS database in multi-AZ mode.
3. Create an S3 bucket to store our WordPress content.
4. Create a Route 53 hosted zone for our domain name.
5. Configure EC2 instance to use the RDS database.
6. Configure our WordPress Application to use the S3 bucket.
7. Configure Route 53 to route Traffic to our EC2 instances.

### Step 1: creating IAM role:

In IAM service – roles – create role – in trusted and entity type: choose AWS service – in use case: EC2 – in permission policies: choose Administrator Access – set Role name: EG: productionandrecovery – create role.

### Step 2: create route 53 hosted zone for our domain name.

In Route 53 service – create hosted zone – set Domain name: ambalavaneshwaranr.xyz – type: public hosted zone – create hosted zone.

#### Hosted zone configuration

A hosted zone is a container that holds information about how you want to route traffic for a domain, such as example.com, and its subdomains.

##### Domain name [Info](#)

This is the name of the domain that you want to route traffic for.

Valid characters: a-z, 0-9, ! " # \$ % & ' ( ) \* + , - / : ; < = > ? @ [ \ ] ^ \_ ` { | } . ~

##### Description - optional [Info](#)

This value lets you distinguish hosted zones that have the same name.

The hosted zone is used for...

The description can have up to 256 characters. 0/256

##### Type [Info](#)

The type indicates whether you want to route traffic on the internet or in an Amazon VPC.

###### ☒ Public hosted zone

A public hosted zone determines how traffic is routed on the internet.

###### ☐ Private hosted zone

A private hosted zone determines how traffic is routed within an Amazon VPC.

In hosted zone details, Name Servers are created configure to the 3<sup>rd</sup> party domain provider,

Public

ambalavaneshwaranr.xyz

Info

Delete zone

Test record

Configure query logging

▼ Hosted zone details

Edit hosted zone

Hosted zone name	Query log	Name servers
ambalavaneshwaranr.xyz	-	ns-1246.awsdns-27.org
Hosted zone ID	Type	ns-966.awsdns-56.net
Z063876837FM7J2C4PTD4	Public hosted zone	ns-1794.awsdns-32.co.uk
Description	Record count	ns-135.awsdns-16.com
-	2	

In 3<sup>rd</sup> domain provider – manage – in name servers – change name server,

#### Nameservers changed!

Your nameservers has been changed to:

ns-1246.awsdns-27.org

ns-135.awsdns-16.com

ns-1794.awsdns-32.co.uk

ns-966.awsdns-56.net

It might take up to 24 hours for the domain to propagate to the new nameservers.

Close

Step 3: request SSL certificate for our domain name,

In certificate manager service – request – request type: public – in domain name set fully qualified domain name,

AWS Certificate Manager > Certificates > Request certificate > Request public certificate

Request public certificate

Domain names

Provide one or more domain names for your certificate.

Fully qualified domain name

Info

ambalavaneshwaranr.xyz

Remove

recovery.ambalavaneshwaranr.xyz

Remove

Add another name to this certificate

You can add additional names to this certificate. For example, if you're requesting a certificate for "www.example.com", you might want to add the name "example.com" so that customers can reach your site by either name.

In Validation method: DNS method – in key algorithm: RSA 2048 – click request.

AWS Certificate Manager > Certificates

Certificates (1)

Refresh

Delete

Manage expiry events

Import

Request

< 1 > ⚙

<input type="checkbox"/>	Certificate ID	Domain name	Type	Status	In use	Renewal eligibility	Key algorithm
<input type="checkbox"/>	fd5bdcc5-5790-4ae3-901e-a3b00a089dd5	ambalavaneshwaranr.xyz	Amazon Issued	Pending validation	No	Ineligible	RSA 2048

Certificate requested successfully wait for some time status of requested certificate has been changed pending validation to issued.

Go requested certificate details – in domain: two records created and click create record in route 53 – create records.

AWS Certificate Manager > Certificates > Create DNS records in Amazon Route 53

### Create DNS records in Amazon Route 53 (2/2)

Search domains 2 matches

Validation status: Pending validation X Validation status: Failed X Is domain in Route 53?: Yes X Clear filter

<input checked="" type="checkbox"/>	Domain	Validation status	Type	CNAME name	CNAME value	Is domain in Route 53?
<input checked="" type="checkbox"/>	ambalavanes hwaranr.xyz	Pending validation	CNAME	_a99a6ed310475cb fad85d35108cafad e.ambalavaneshwar anr.xyz.	_68f24e0d2d1d5ce d916b4b2cfd848e 61.dbspspvnns.acm- validations.aws.	Yes
<input checked="" type="checkbox"/>	recovery.am balavaneshw aranr.xyz	Pending validation	CNAME	_47e7aeaa2803a0f 2b116c8eb8ecb8f0 0.recovery.ambalav aneshwaranr.xyz.	_7e1ff10756a6b8e 4e287ed6e5158cfa a.fgsdscwdjl.acm- validations.aws.	Yes

Cancel Create records

In route 53 service, two CNAME records are created.

Records (4) Info

Automatic mode is the current search behavior optimized for best filter results. To change modes go to settings.

Delete record Import zone file Create record

Filter records by property or value Type Routing policy Alias

<input type="checkbox"/>	Record ...	Type	Routin...	Differ...	Alias	Value/Route traffic to	TTL (s)
<input type="checkbox"/>	ambalava...	NS	Simple	-	No	ns-1246.awsdns-27.org. ns-966.awsdns-56.net. ns-1794.awsdns-32.co.uk. ns-135.awsdns-16.com.	172800
<input type="checkbox"/>	ambalava...	SOA	Simple	-	No	ns-1246.awsdns-27.org. aws...	900
<input type="checkbox"/>	_a99a6ed...	CNAME	Simple	-	No	_68f24e0d2d1d5ced916b4b...	300
<input type="checkbox"/>	_47e7ae...	CNAME	Simple	-	No	_7e1ff10756a6b8e4e287ed6...	300

Step 4: create two instances for production and recovery with IAM role enabled,

- i) EC2 service – launch instance – name: **production server** – in AMIs: amazon Linux 2 – instance type: t2.micro – key pair: .ppk – in network settings: subnet: 1a, Security group: All Traffic – configure storage: 30 GiB – in additional details: attach IAM role created – in user data: add below commands

```
#!/bin/bash
yum install httpd php-mysql -y
amazon-linux-extras install -y php7.3
cd /var/www/html
echo "healthy" > healthy.html
wget https://wordpress.org/latest.tar.gz
tar -xzf latest.tar.gz
cp -r wordpress/* /var/www/html/
```

```
rm -rf wordpress
rm -rf latest.tar.gz
chmod -R 755 wp-content
chown -R apache:apache wp-content
wget https://s3.amazonaws.com/bucketforwordpresslab-donotdelete/htaccess.txt
mv htaccess.txt .htaccess
service httpd start
```

launch instance – instance launched for **production server** successfully,

- ii) EC2 service – launch instance – name: **recovery server** – in AMIs: amazon Linux 2 – instance type: t2.micro – key pair: .ppk – in network settings: subnet: 1a, Security group: All Traffic – configure storage: 30 GiB – in additional details: attach IAM role created – in user data: add below commands

```
#!/bin/bash
yum install httpd php-mysql -y
amazon-linux-extras install -y php7.3
cd /var/www/html
echo "healthy" > healthy.html
wget https://wordpress.org/latest.tar.gz
tar -xzf latest.tar.gz
cp -r wordpress/* /var/www/html/
rm -rf wordpress
rm -rf latest.tar.gz
chmod -R 755 wp-content
chown -R apache:apache wp-content
wget https://s3.amazonaws.com/bucketforwordpresslab-donotdelete/htaccess.txt
mv htaccess.txt .htaccess
service httpd start
```

launch instance – instance launched for **recovery server** successfully,

step 5: create data base for **production server**:

In RDS service – create DB subnet – create database for production,

**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 option: MySQL-5.7.37

Template: free tier

## Configure DB settings:


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

☐ **Manage master credentials in AWS Secrets Manager**  
Manage master user credentials in Secrets Manager. RDS can generate a password for you and manage it throughout its lifecycle.

 If you manage the master user credentials in Secrets Manager, some RDS features aren't supported. [Learn more](#)


☐ **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](#)

## In instance configuration, DB instance class: burstable class – db.t2.micro,

**Instance configuration**  
The DB instance configuration options below are limited to those supported by the engine that you selected above.

 **Amazon RDS Optimized Writes - new** [Info](#)

☐ Show instance classes that support Amazon RDS Optimized Writes

**DB instance class** [Info](#)  

☐ Standard classes (includes m classes)

☐ Memory optimized classes (includes r and x classes)

☒ Burstable classes (includes t classes)

db.t2.micro

1 vCPUs 1 GiB RAM Not EBS Optimized

☐ Include previous generation classes

## In storage: unmark enable auto scaling,

**Storage**

**Storage type** [Info](#)  

General Purpose SSD (gp2)

Baseline performance determined by volume size

**Allocated storage** [Info](#)  

GiB

The minimum value is 20 GiB and the maximum value is 6,144 GiB

**Storage autoscaling** [Info](#)  
Provides dynamic scaling support for your database's storage based on your application's needs.

☐ **Enable storage autoscaling**  
Enabling this feature will allow the storage to increase after the specified threshold is exceeded.

In connectivity: connect EC2 compute resource – choose: created **production server** instance,

Connectivity [Info](#)

Compute resource

Choose whether to set up a connection to a compute resource for this database. Setting up a connection will automatically change connectivity settings so that the compute resource can connect to this database.

☐ Don't connect to an EC2 compute resource

Don't set up a connection to a compute resource for this database. You can manually set up a connection to a compute resource later.

☒ Connect to an EC2 compute resource

Set up a connection to an EC2 compute resource for this database.

EC2 instance [Info](#)

Choose the EC2 instance to add as the compute resource for this database. A VPC security group is added to this EC2 instance. A VPC security group is also added to the database with an inbound rule that allows the EC2 instance to access the database.

i-00f9e7af2682c0e61

production server

☒

group, and public access

i-05d425fe8b4aa9c6f

recovery server

☐

, a VPC security group

☐

: instance. You can

☐

remove the new security group for the database only by removing the compute resource.

DB subnet choose created subnet,

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.

☒ Choose existing

Choose existing DB subnet group

☐ Automatic setup

RDS creates a new subnet group for you or reuses an existing subnet group

Existing DB subnet groups

newprojectsubnetgroup

3 Subnets, 3 Availability Zones

VPC security group: choose All Traffic

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

Additional VPC security group

Choose one or more options

All Traffic X

In additional configuration – set initial database name: productionDB – in backup: unmark enable automated backup – in maintenance: unmark enable auto minor version upgrade.

Click Create database.

RDS > Databases > productiondb

productiondb

Modify Actions

Summary

DB identifier

productiondb

CPU

4.59%

Status

Available

Class

db.t2.micro

Role

Instance

Current activity

0 Connections

Engine

MySQL Community

Region & AZ

ap-northeast-1a

## Step 6: Creating Database for **Recovery sever**.

In RDS service – create DB subnet – create database for production,

**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 option: MySQL-5.7.37

Template: free tier

Configure DB settings:

**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.  
  
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.  
  
1 to 16 alphanumeric characters. First character must be a letter.  
☐ **Manage master credentials in AWS Secrets Manager**  
Manage master user credentials in Secrets Manager. RDS can generate a password for you and manage it throughout its lifecycle.

**ⓘ** If you manage the master user credentials in Secrets Manager, some RDS features aren't supported. [Learn more](#)

  
☐ **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](#)

**Instance configuration**  
The DB instance configuration options below are limited to those supported by the engine that you selected above.

**Amazon RDS Optimized Writes - new** [Info](#)  
☐ Show instance classes that support Amazon RDS Optimized Writes

**DB instance class** [Info](#)  

☐ Standard classes (includes m classes)  
☐ Memory optimized classes (includes r and x classes)  
☒ **Burstable classes (includes t classes)**

1 vCPUs 1 GiB RAM Not EBS Optimized

  
☐ Include previous generation classes

In instance configuration, DB instance class: burstable class – db.t2.micro,

**Storage**

**Storage type** [Info](#)  
  
Baseline performance determined by volume size

**Allocated storage** [Info](#)  
 GiB  
The minimum value is 20 GiB and the maximum value is 6,144 GiB

**Storage autoscaling** [Info](#)  
Provides dynamic scaling support for your database's storage based on your application's needs.  
☐ **Enable storage autoscaling**  
Enabling this feature will allow the storage to increase after the specified threshold is exceeded.

In storage: unmark enable auto scaling,

## DB subnet choose created subnet,

### 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.

☒ Choose existing  
Choose existing DB subnet group

☐ Automatic setup  
RDS creates a new subnet group for you or reuses an existing subnet group

#### Existing DB subnet groups

newprojectsubnetgroup  
3 Subnets, 3 Availability Zones

## VPC security group: choose All Traffic

### 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

#### Additional VPC security group

Choose one or more options

All Traffic X

In additional configuration – set initial database name: – in backup: recovery DB unmark enable automated backup – in maintenance: unmark enable auto minor version upgrade.

Click Create database,

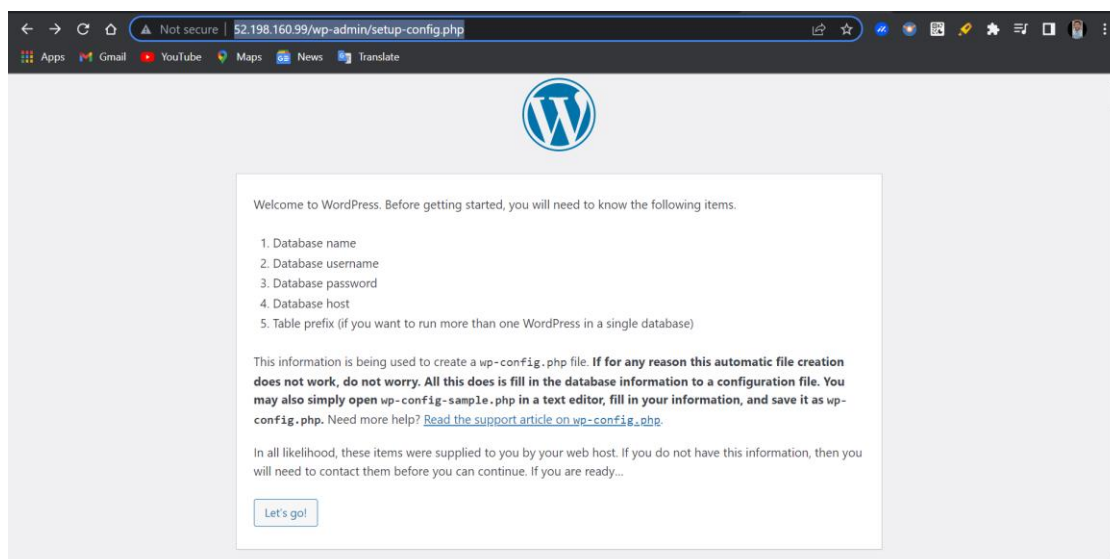
RDS > Databases > recoverydb

recoverydb Modify Actions ▼

Summary			
DB identifier recoverydb	CPU -	Status Available	Class db.t2.micro
Role Instance	Current activity	Engine MySQL Community	Region & AZ ap-northeast-1a

Step 7: configure initial database credentials for production server,

Copy public IPv4 address of production server,



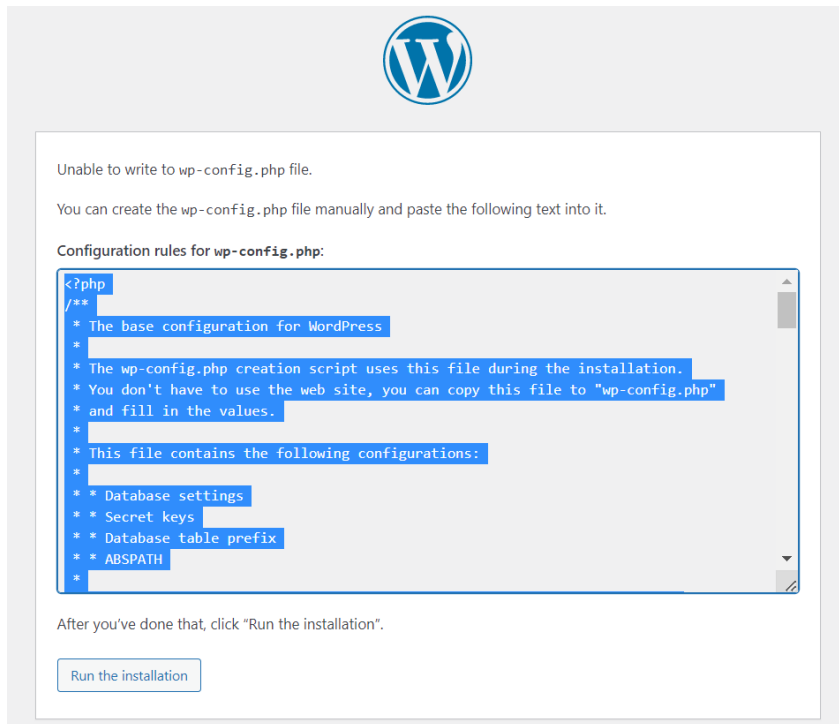


Configure initial database for production Data Base,

1. Database name
2. Database username
3. Database password
4. Database <endpoint>:3306

Click let's go

Here, in WordPress Application it can't able to write wp-config.php file. so, we need write manually.



Copy the content of **wp-config.pip** from WordPress and paste in the path `/var/www/html` directory,

Open terminal in **production server**

```
#sudo -i
```

```
#cd /var/www/html/
```

```
#vi wp-config.pip
```

Add the content

```
:wq!
```

Now, click **Run the Installation**

## Step 8: configure database information details,



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: production server

Username: ambala

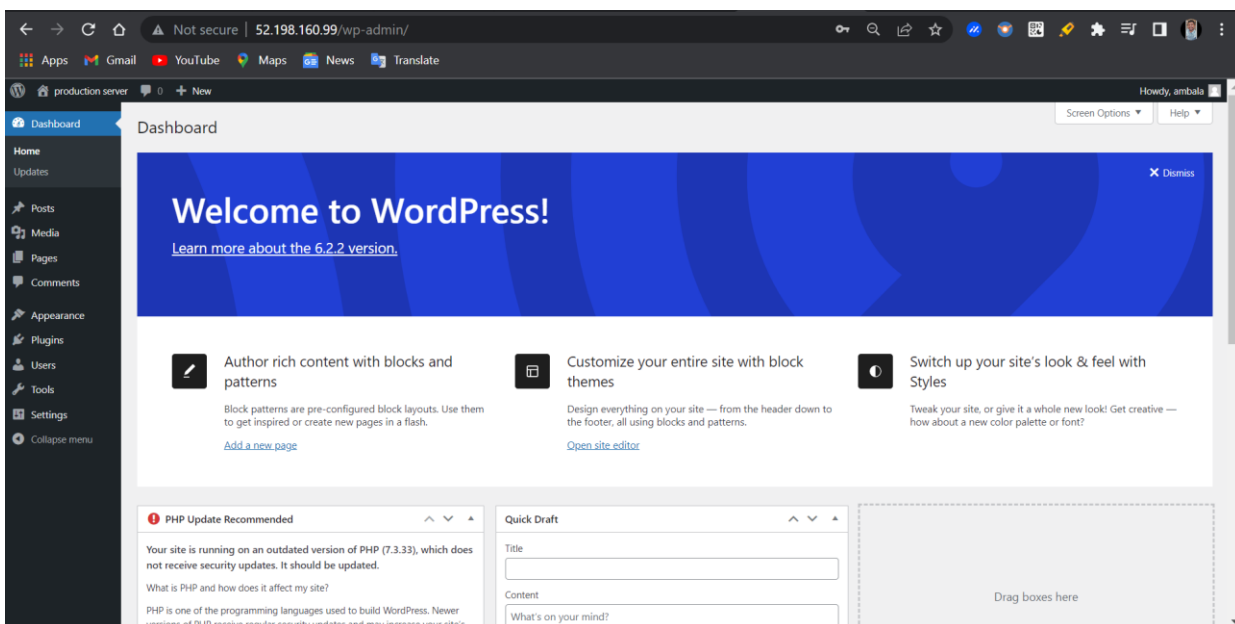
Password: \*\*\*\*\* (Very weak)

Confirm Password: ☒ Confirm use of weak password

Your Email: ambalavaneswarar00@gmail.com

Search engine visibility: ☐ Discourage search engines from indexing this site

Install WordPress



Dashboard

# Welcome to WordPress!

[Learn more about the 6.2.2 version.](#)

- Author rich content with blocks and patterns**  
Block patterns are pre-configured block layouts. Use them to get inspired or create new pages in a flash.  
[Add a new page](#)
- Customize your entire site with block themes**  
Design everything on your site — from the header down to the footer, all using blocks and patterns.  
[Open site editor](#)
- Switch up your site's look & feel with Styles**  
Tweak your site, or give it a whole new look! Get creative — how about a new color palette or font?

**PHP Update Recommended**  
Your site is running on an outdated version of PHP (7.3.33), which does not receive security updates. It should be updated.  
What is PHP and how does it affect my site?  
PHP is one of the programming languages used to build WordPress. Newer versions of PHP receive regular security updates and may increase your site's

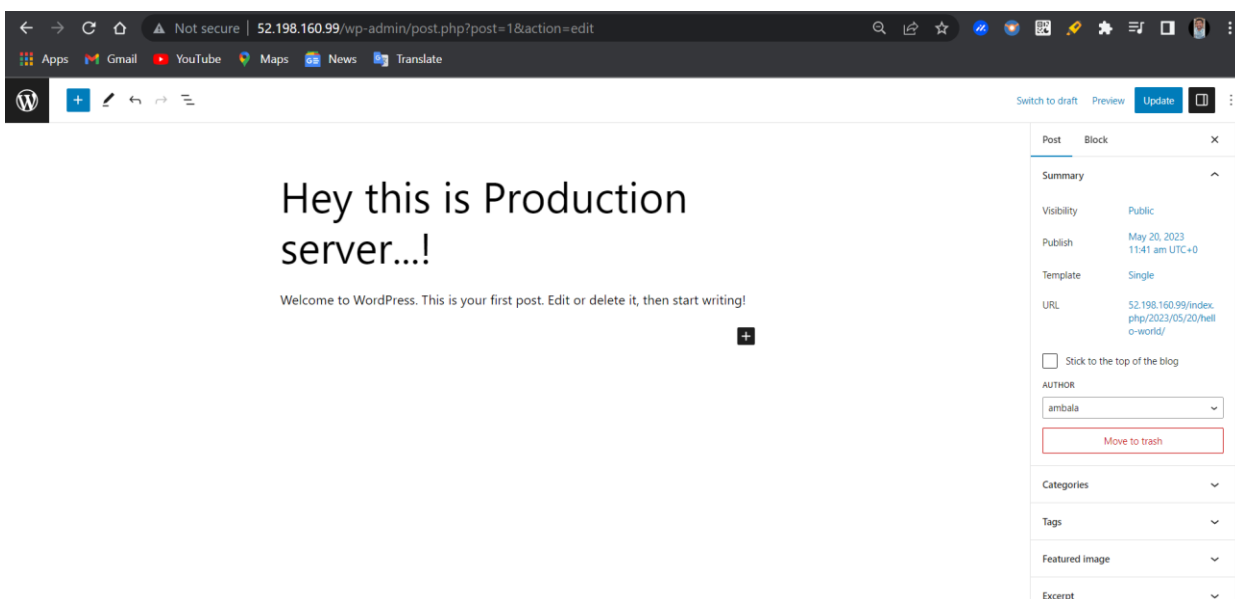
**Quick Draft**

Title:

Content:

What's on your mind?

Drag boxes here



Hey this is Production server...!

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

Switch to draft Preview Update

Post Block

Summary

Visibility: Public

Publish: May 20, 2023 11:41 am UTC+0

Template: Single

URL: 52.198.160.99/index.php/2023/05/20/hello-world/

☐ Stick to the top of the blog

AUTHOR: ambala

Move to trash

Categories

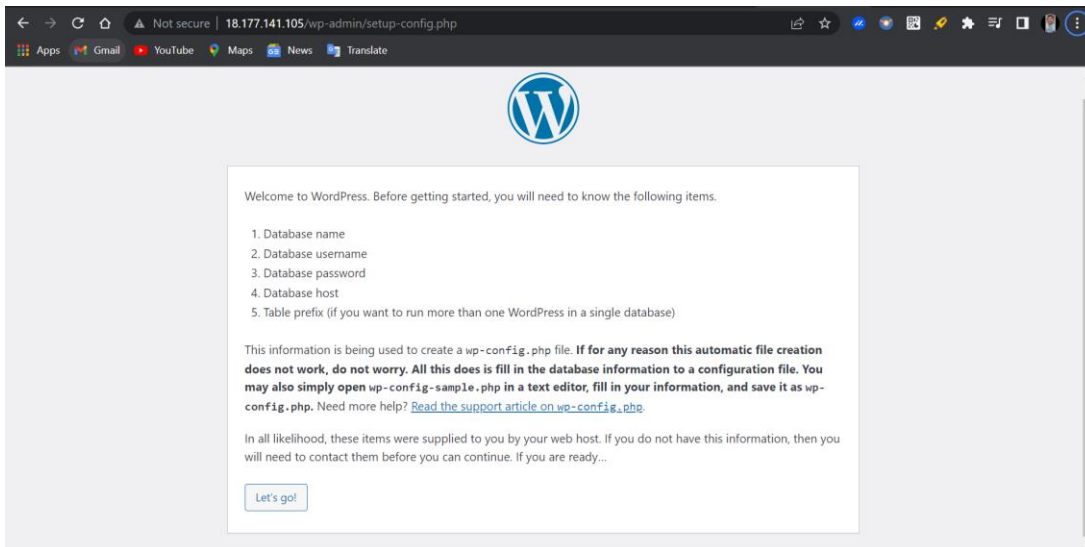
Tags

Featured image

Excerpt

Step 9: configure initial database credentials for recovery server,

Copy public IPv4 address of production server,

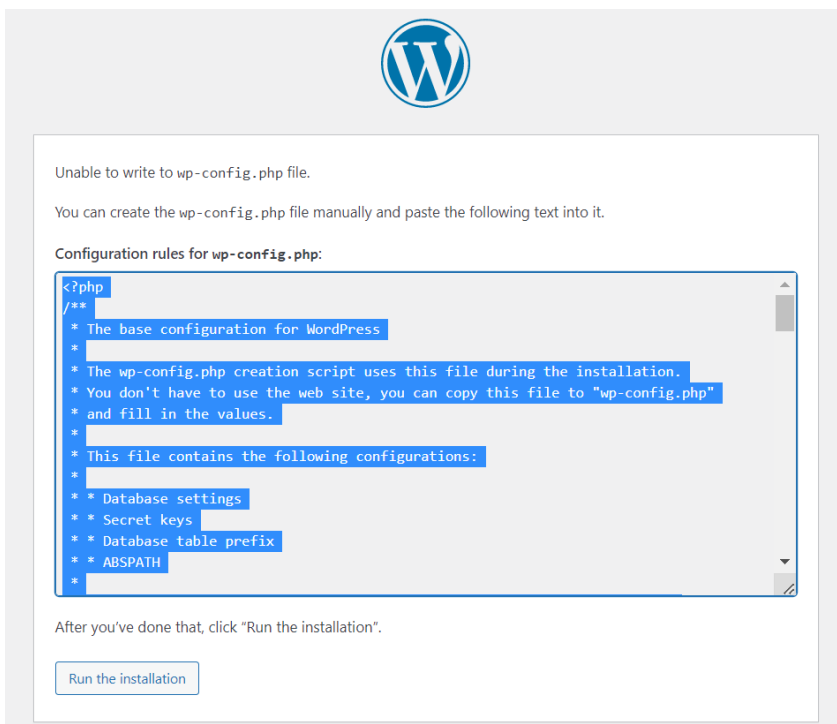


Configure initial database for production Data Base,

1. Database name
2. Database username
3. Database password
4. Database <endpoint>:3306

Click let's go

Here, in WordPress Application it can't able to write wp-config.php file. so, we need write manually.



Copy the content of **wp-config.php** from WordPress and paste in the path `/var/www/html` directory,

Open terminal in **production server**

```
#sudo -i
```

```
#cd /var/www/html/
```

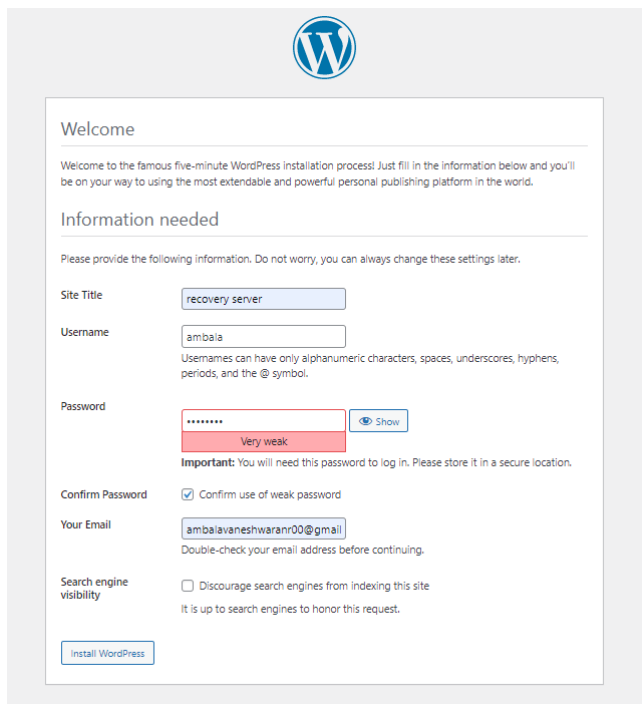
```
#vi wp-config.php
```

Add the content

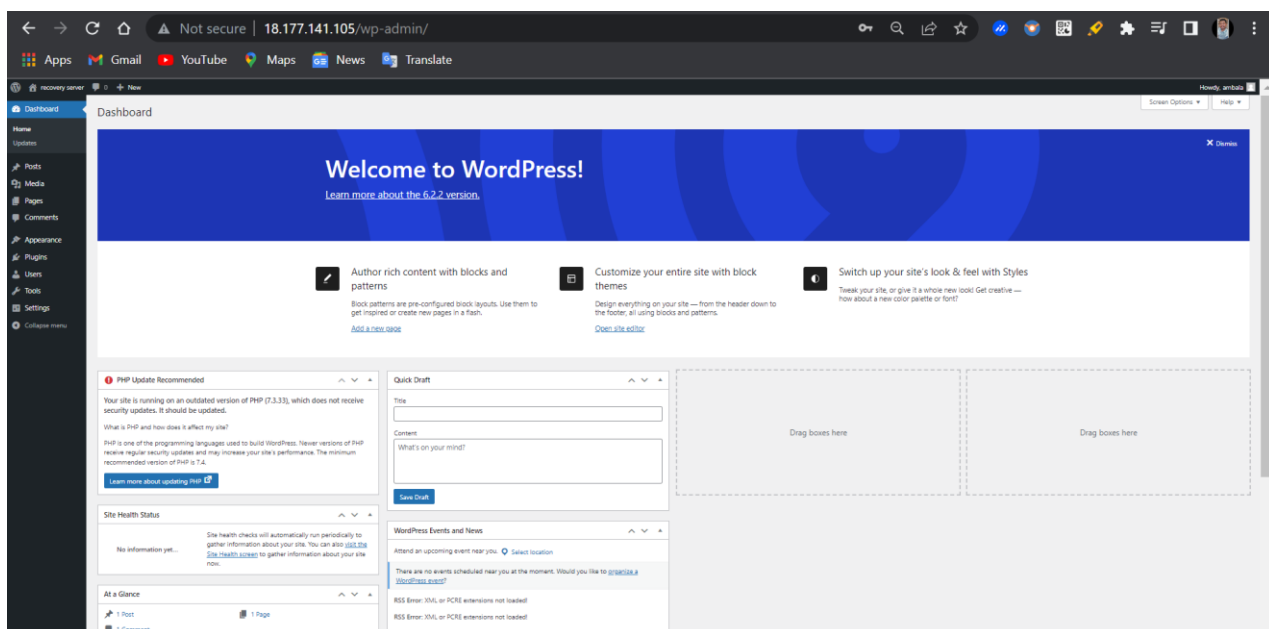
```
:wq!
```

Now, click **Run the Installation**

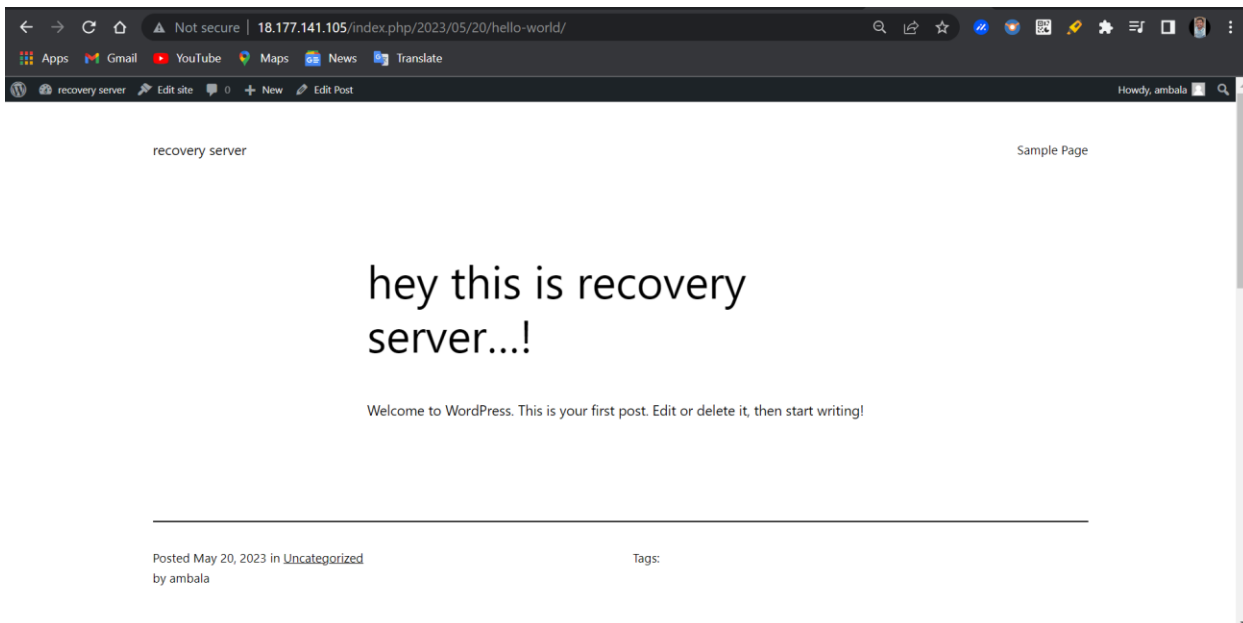
Step 10: configure database information details,



The image shows the WordPress installation 'Welcome' screen. At the top is the WordPress logo. Below it, a 'Welcome' message states: '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.' The 'Information needed' section follows, with a note: 'Please provide the following information. Do not worry, you can always change these settings later.' The form includes: 'Site Title' (recovery server), 'Username' (ambala), 'Password' (masked with dots, labeled 'Very weak' with a 'Show' button), 'Confirm Password' (checked 'Confirm use of weak password'), 'Your Email' (ambalavaneshwaran00@gmail.com), and 'Search engine visibility' (unchecked 'Discourage search engines from indexing this site'). An 'Install WordPress' button is at the bottom.

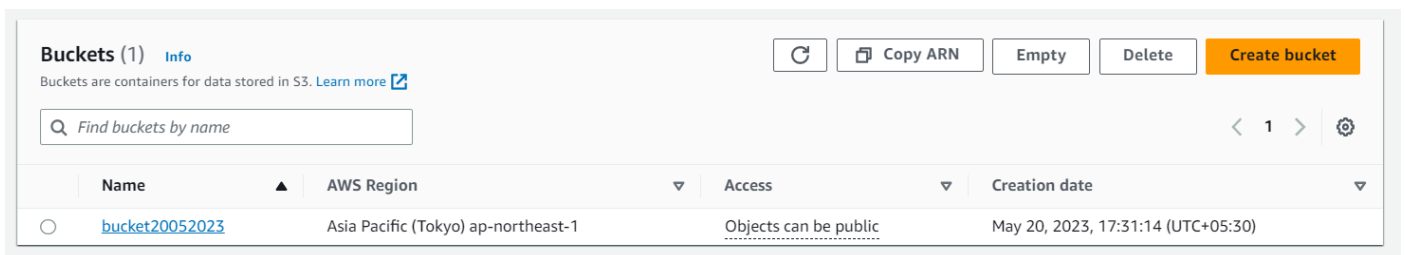


The image is a screenshot of the WordPress admin dashboard. The browser address bar shows '18.177.141.105/wp-admin/'. The dashboard header includes a 'Welcome to WordPress!' banner with a link to 'Learn more about the 6.2.2 version'. Below the banner are three main sections: 'Author rich content with blocks and patterns', 'Customize your entire site with block themes', and 'Switch up your site's look & feel with Styles'. The left sidebar contains a menu with 'Dashboard', 'Home', 'Updates', 'Posts', 'Media', 'Pages', 'Comments', 'Appearance', 'Plugins', 'Users', 'Tools', 'Settings', and 'Collapse menu'. The main content area features several widgets: 'PHP Update Recommended' (noting the site is on an outdated version of PHP 7.3.33), 'Quick Draft' (a form for creating a new post), 'Site Health Status' (showing 'No information yet...'), 'WordPress Events and News' (listing upcoming events), and 'At a Glance' (showing '1 Post' and '1 Comment'). The right side of the dashboard has two large dashed boxes labeled 'Drag boxes here'.

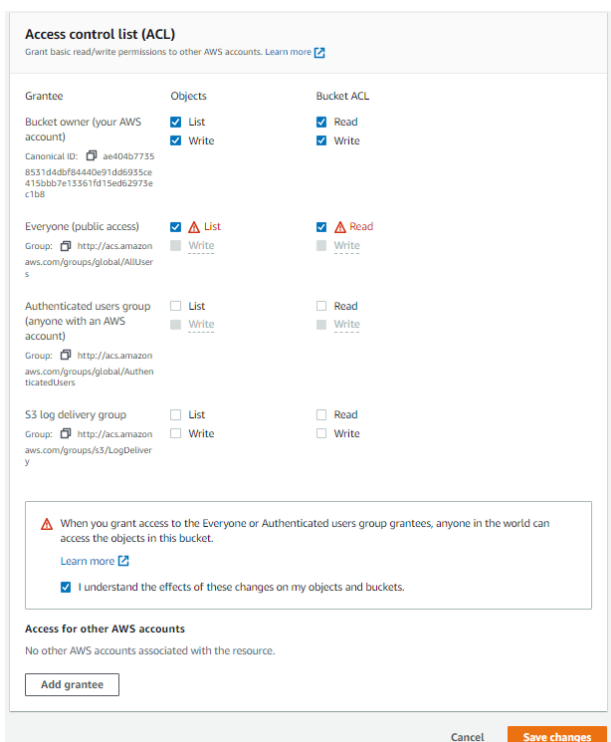


## Step 11: create two S3 buckets to add WordPress content

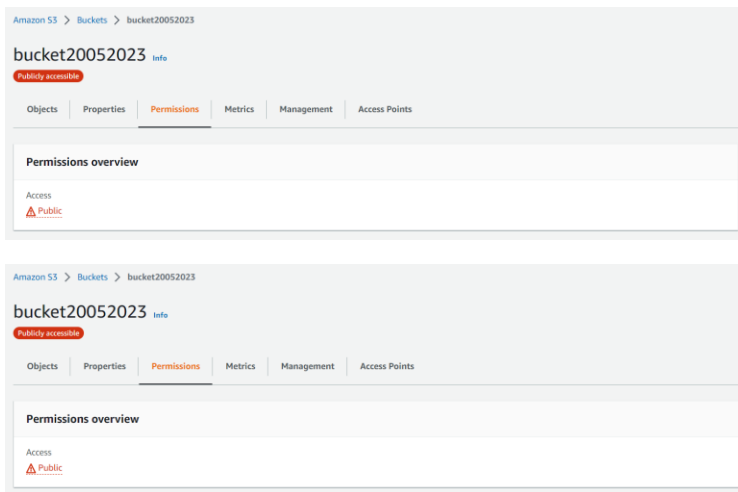
In S3 bucket – create bucket – set unique bucket name – in object ownership: ACLs enabled - remove unmark from block all public access and acknowledge it – in bucket versioning enabled – click create bucket.



Go to the details of created bucket – go to the permission – in Access Control List,



Here, bucket is publicly accessible



Two buckets created successfully,

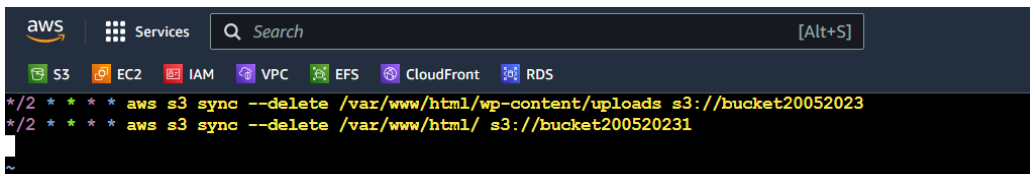
The screenshot shows the Amazon S3 console with two buckets listed. Both buckets are publicly accessible and were created on May 20, 2023.

Name	AWS Region	Access	Creation date
bucket20052023	Asia Pacific (Tokyo) ap-northeast-1	Public	May 20, 2023, 17:31:14 (UTC+05:30)
bucket200520231	Asia Pacific (Tokyo) ap-northeast-1	Public	May 20, 2023, 17:38:07 (UTC+05:30)

Step 12: assign cron job for production server,

#crontab -e

Add cronjob

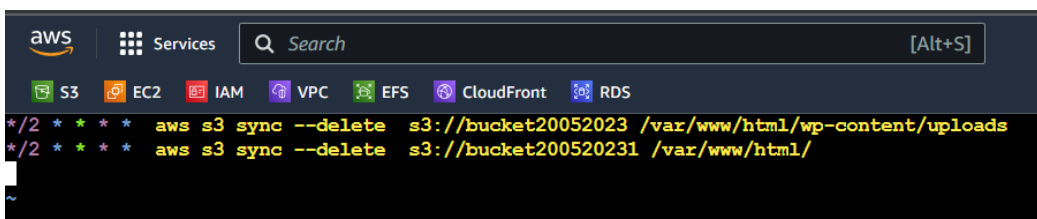


:wq!

Step 13: assign cron job for recovery server,

#crontab -e

Add cronjob



:wq!

## Step 14: create load balancer for production server:

Create load balancer – choose classic load balancer – set LB name: productionserver – click next to assign security group – choose all traffic – click next to configure security settings – no change – click next to configure health check, add ping path /healthy.html.

The screenshot shows the AWS Management Console interface for configuring a load balancer. The top navigation bar includes the AWS logo, a search bar, and a list of services (S3, EC2, IAM, VPC, EFS, CloudFront, RDS). The breadcrumb trail indicates the current step: 1. Define Load Balancer, 2. Assign Security Groups, 3. Configure Security Settings, 4. Configure Health Check, 5. Add EC2 Instances, 6. Add Tags, 7. Review.

**Step 4: Configure Health Check**  
Your load balancer will automatically perform health checks on your EC2 instances and only route traffic to instances that pass the health check. If an instance fails the health check, it is automatically removed from the load balancer. Customize the health check to meet your specific needs.

**Health Check Configuration:**

- Ping Protocol: HTTP
- Ping Port: 80
- Ping Path: /healthy.html

**Advanced Details:**

- Response Timeout: 5 seconds
- Interval: 30 seconds
- Unhealthy threshold: 2
- Healthy threshold: 10

At the bottom right, there are three buttons: Cancel, Previous, and Next: Add EC2 Instances.

Click next to add ec2 instances – choose production server – review and create – create.

The screenshot shows the 'Load balancers' page in the AWS Management Console. It displays a table with one entry, 'productionserver', which is a classic load balancer. The table columns include Name, DNS name, State, VPC ID, Availability Zones, Type, and Date created.

Name	DNS name	State	VPC ID	Availability Zones	Type	Date created
productionserver	productionserver-892679...	-	vpc-073e87fec5078344e	3 Availability Zones	classic	May 20, 2023 (UTC+05:30)

## Step 15: create load balancer for recovery server:

Create load balancer – choose classic load balancer – set LB name: productionserver – click next to assign security group – choose all traffic – click next to configure security settings – no change – click next to configure health check, add ping path /healthy.html.

This screenshot is identical to the one for Step 14, showing the 'Step 4: Configure Health Check' page in the AWS Management Console. It details the configuration for a classic load balancer, including the health check protocol (HTTP), port (80), path (/healthy.html), and advanced details like response timeout (5s), interval (30s), and thresholds (2 unhealthy, 10 healthy).

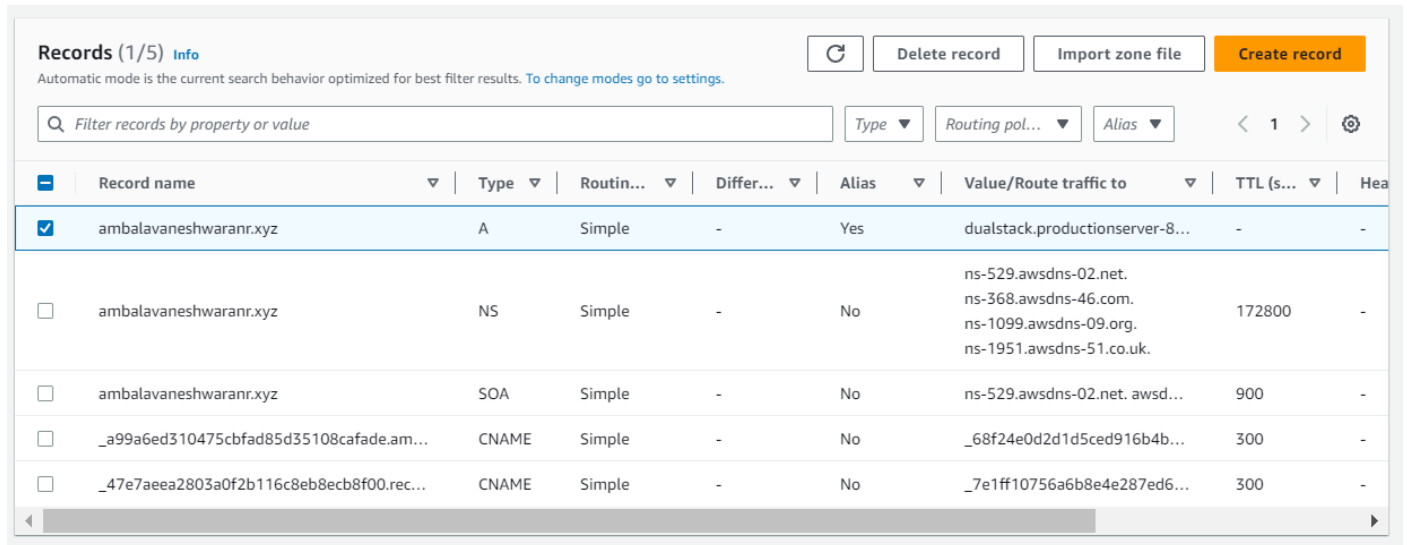
Click next to add ec2 instances – choose production server – review and create – create.

The screenshot shows the 'Load balancers' page in the AWS Management Console, now displaying two entries: 'productionserver' and 'recoveryserver'. Both are classic load balancers in the same VPC and availability zones.

Name	DNS name	State	VPC ID	Availability Zones	Type	Date created
productionserver	productionserver-892679...	-	vpc-073e87fec5078344e	3 Availability Zones	classic	May 20, 2023, 17 (UTC+05:30)
recoveryserver	recoveryserver-14428636...	-	vpc-073e87fec5078344e	3 Availability Zones	classic	May 20, 2023, 16 (UTC+05:30)

## Step 16: create record in route 53

In route 53 service – create record – choose simple routing policy – define simple records – in value route/traffic to choose: alias to application and classic load balancer – choose region – add created production LB – click define simple record – click create records – record created.

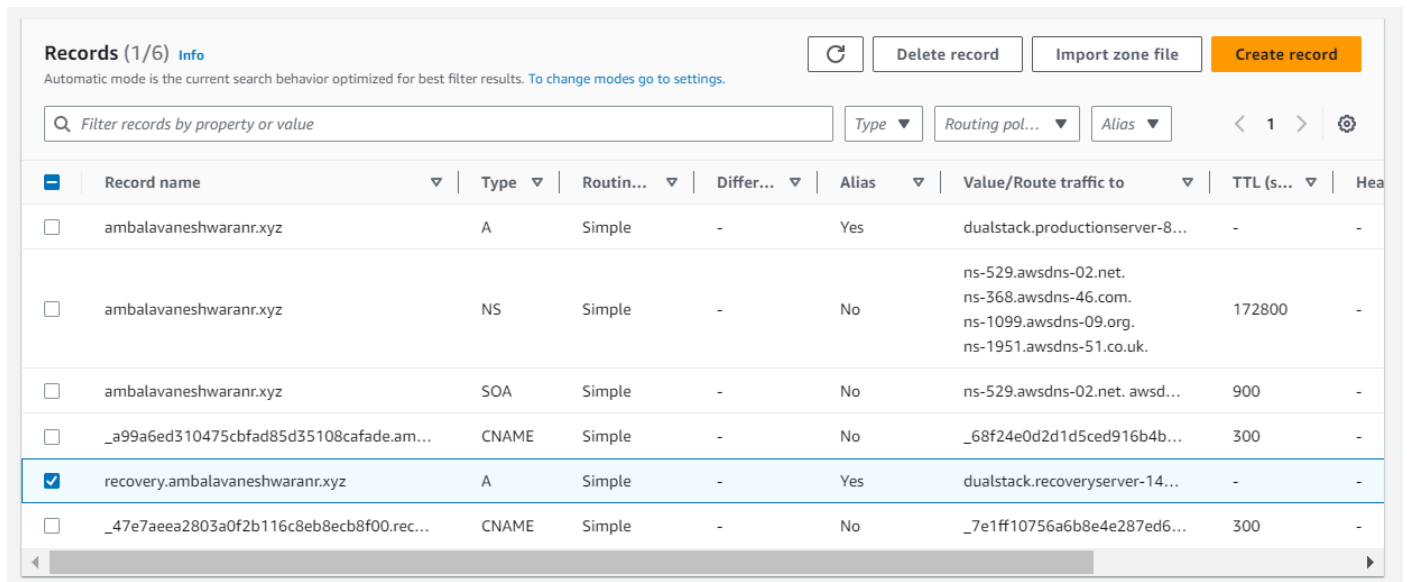


The screenshot shows the AWS Route 53 console with the 'Records (1/5)' tab selected. The table lists five DNS records for the domain 'ambalavaneshwaranr.xyz'. The first record is an 'A' record pointing to 'dualstack.productionserver-8...'. The second is an 'NS' record pointing to four Amazon Route 53 nameservers. The third is a 'SOA' record. The fourth and fifth are 'CNAME' records pointing to specific S3 buckets.

	Record name	Type	Routin...	Differ...	Alias	Value/Route traffic to	TTL (s...	Hea
<input checked="" type="checkbox"/>	ambalavaneshwaranr.xyz	A	Simple	-	Yes	dualstack.productionserver-8...	-	-
<input type="checkbox"/>	ambalavaneshwaranr.xyz	NS	Simple	-	No	ns-529.awsdns-02.net. ns-368.awsdns-46.com. ns-1099.awsdns-09.org. ns-1951.awsdns-51.co.uk.	172800	-
<input type="checkbox"/>	ambalavaneshwaranr.xyz	SOA	Simple	-	No	ns-529.awsdns-02.net. awsd...	900	-
<input type="checkbox"/>	_a99a6ed310475cbfad85d35108cafade.am...	CNAME	Simple	-	No	_68f24e0d2d1d5ced916b4b...	300	-
<input type="checkbox"/>	_47e7aeea2803a0f2b116c8eb8ecb8f00.rec...	CNAME	Simple	-	No	_7e1ff10756a6b8e4e287ed6...	300	-

## Step 17: again, create record in route 53

In route 53 service – create record – choose simple routing policy – define simple records – in value route/traffic to choose: alias to application and classic load balancer – choose region – add created recovery LB – click define simple record – click create records – record created



This screenshot is similar to the previous one but shows a new record added to the list. The 'recovery.ambalavaneshwaranr.xyz' record is now selected with a checked checkbox. It is an 'A' record pointing to 'dualstack.recoveryserver-14...'. The other records remain the same.

	Record name	Type	Routin...	Differ...	Alias	Value/Route traffic to	TTL (s...	Hea
<input type="checkbox"/>	ambalavaneshwaranr.xyz	A	Simple	-	Yes	dualstack.productionserver-8...	-	-
<input type="checkbox"/>	ambalavaneshwaranr.xyz	NS	Simple	-	No	ns-529.awsdns-02.net. ns-368.awsdns-46.com. ns-1099.awsdns-09.org. ns-1951.awsdns-51.co.uk.	172800	-
<input type="checkbox"/>	ambalavaneshwaranr.xyz	SOA	Simple	-	No	ns-529.awsdns-02.net. awsd...	900	-
<input type="checkbox"/>	_a99a6ed310475cbfad85d35108cafade.am...	CNAME	Simple	-	No	_68f24e0d2d1d5ced916b4b...	300	-
<input checked="" type="checkbox"/>	recovery.ambalavaneshwaranr.xyz	A	Simple	-	Yes	dualstack.recoveryserver-14...	-	-
<input type="checkbox"/>	_47e7aeea2803a0f2b116c8eb8ecb8f00.rec...	CNAME	Simple	-	No	_7e1ff10756a6b8e4e287ed6...	300	-

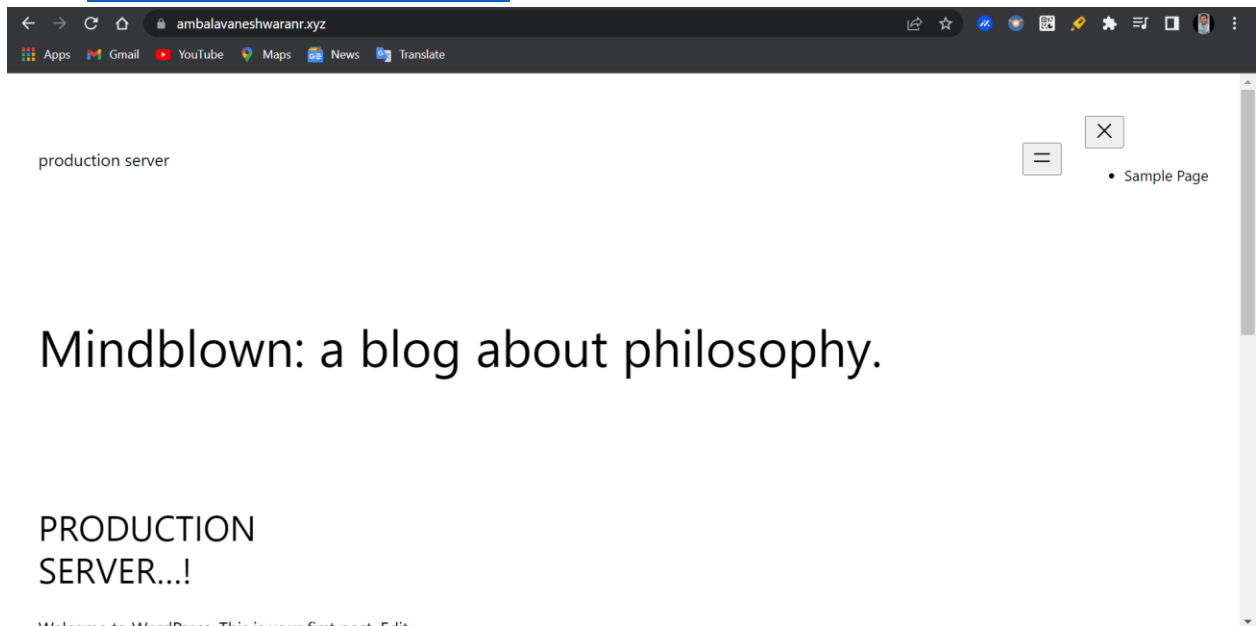
## Step 18: add certificate in Load balancer for production and recovery

- In details of production load balancer – listeners – edit – in load balancer protocol: choose HTTPS (secure HTTP) – in SSL certificate change – choose certificate form ACM – save.
- In details of recovery load balancer – listeners – edit – in load balancer protocol: choose HTTPS (secure HTTP) – in SSL certificate change – choose certificate form ACM – save.



Step 19: in incognito chrome,

1. Hit as <https://ambalavaneshwaranr.xyz>



2. Hit as <https://recovery.ambalavaneshwaranr.xyz>

