NAME: ARPITH PRADEEP

ID: 35548251

ICT 171

Introduction To Server Environments & Architectures

Documentation

IP Address: 16.16.93.15

Domain Name: https://burgerdxb.online/

GitHub Link: https://github.com/arpith006/burgerdxb.online

Contents

Step 1: Make an Amazon AWS account .

- Go to https://signin.aws.amazon.com/signup?request_type=register to make an account.
- Fill in all your details.

Step 2: Login to AWS console.

- Go to https://aws.amazon.com/
- Click “Sign In to the Console”.
- Enter your email and password.

Step 3: Open the EC2 Dashboard.

- In the search bar at the top, type “EC2”.
- Click on “EC2” under Services.

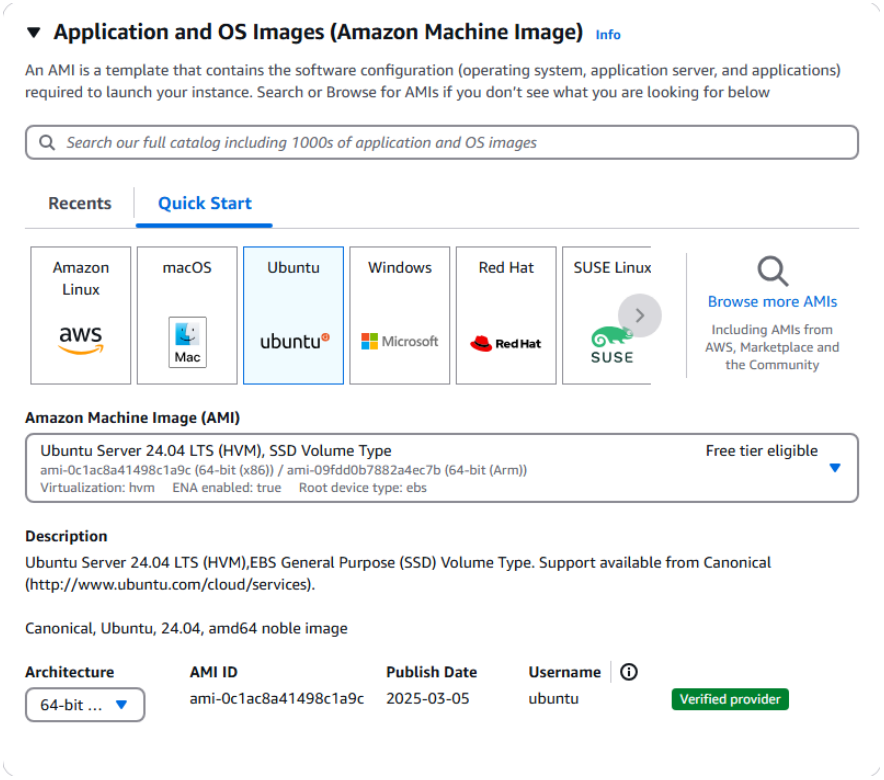
Step 4: Lauch a New Instance .

- On the EC2 Dashboard, click on “Launch Instance”.

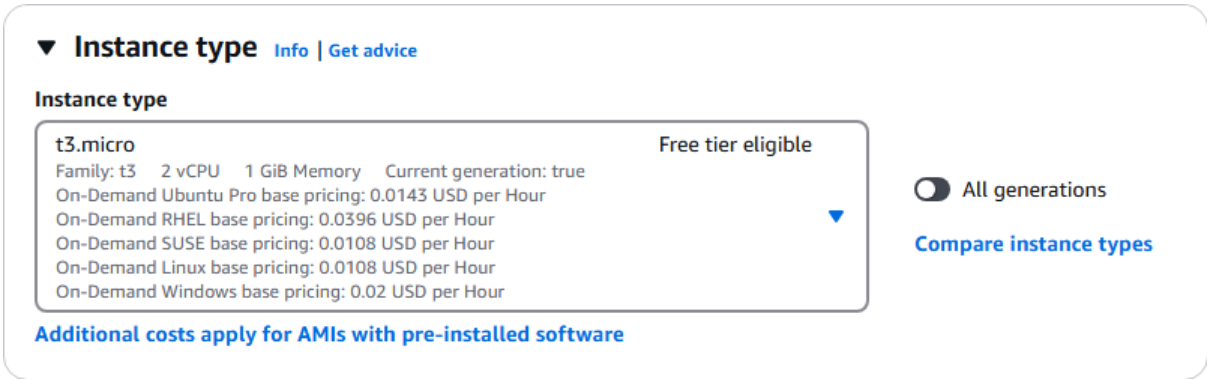
Step 5: Configuring the web server.

- Give a name for you web server.
- 

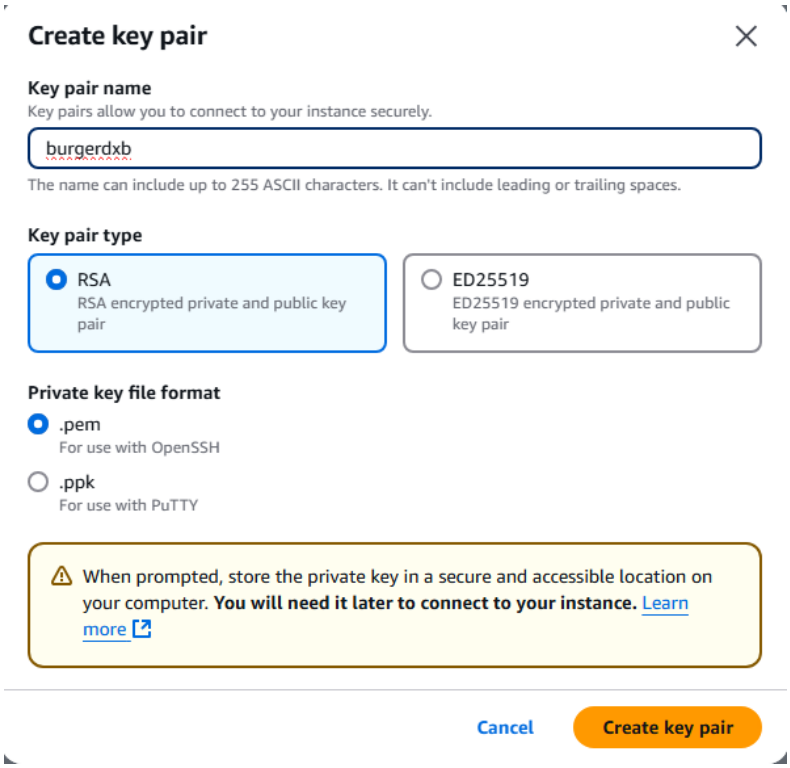
- Configuring the Amazon Machine Image.



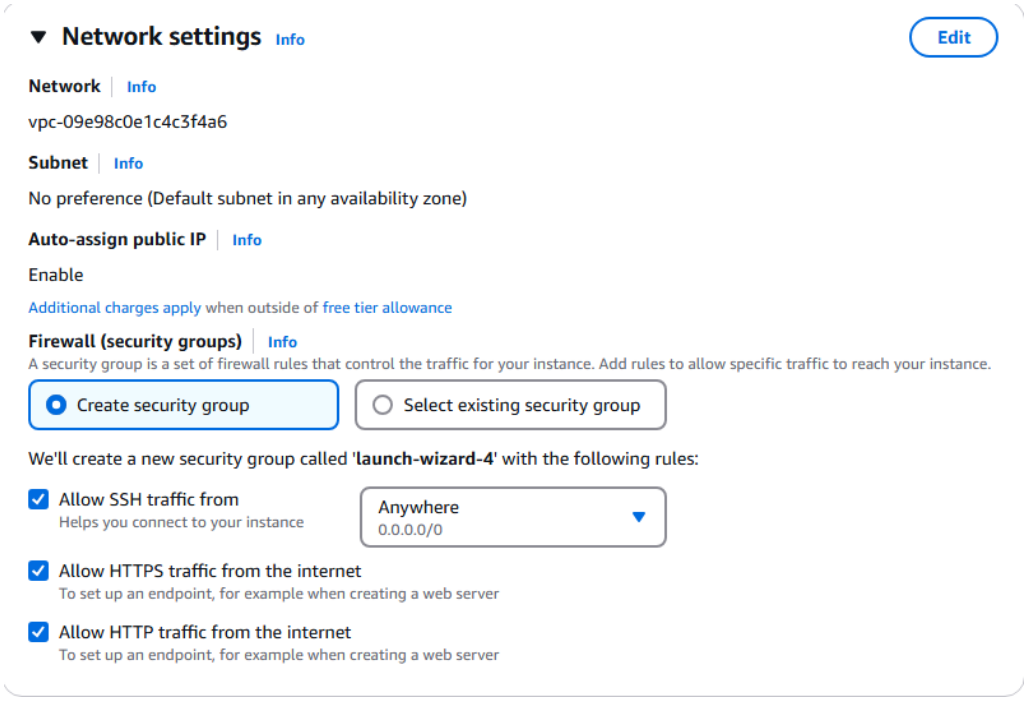
- Instance type .



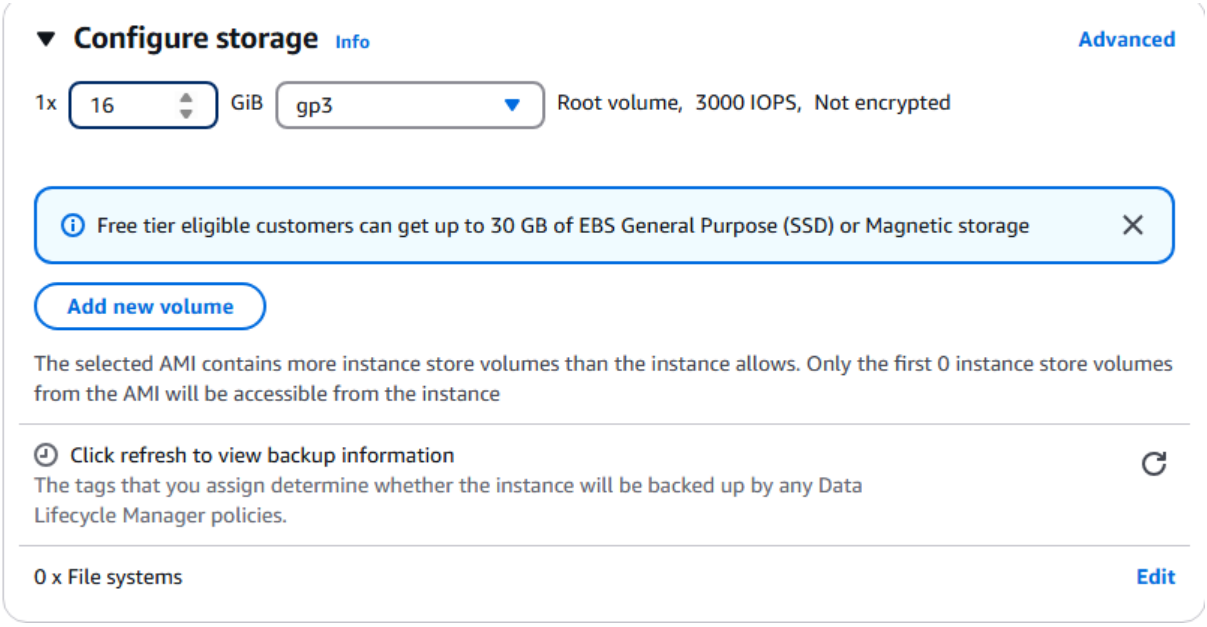
- Create a keypair .



- Network settings .



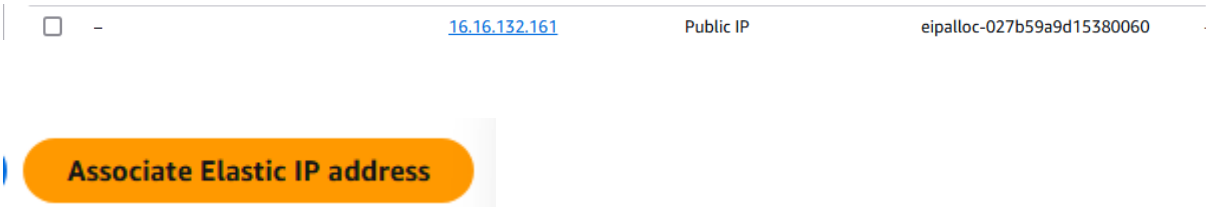
- Configure storage .

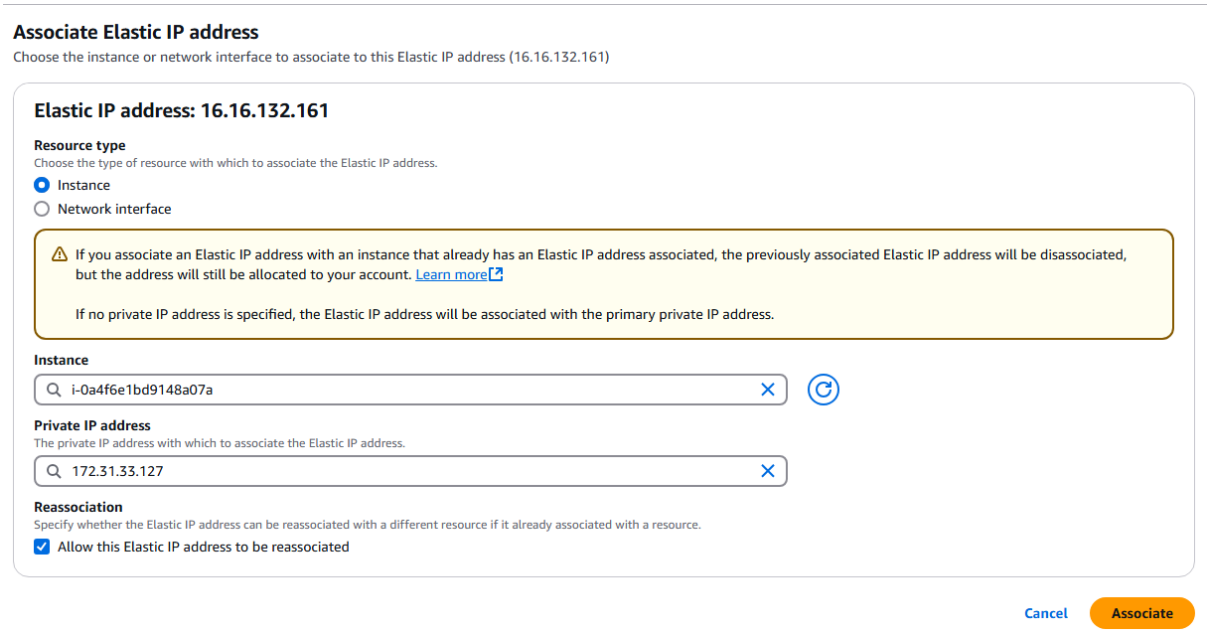


- Then we can launch our instance.

Step 6: Setting up an elastic ip for ease of access .

- In EC2 under Network & Security →Elastic IPs.
- Click on Allocate Elastic IP address.
- Keep default settings and click “Allocate”.
- Click on your elastic ip to allocate it to your web server.



- 

Step 7: SSH into the web server.

- Open terminal on your PC.
- ssh -i "location of keypair saved on your PC" ubuntu@ip address of server
- eg:

```
PS C:\Users\arpit> ssh -i "C:\Users\arpit\Downloads\burgerdxb.pem" ubuntu@16.16.132.161
```

Step 8: Installing Apache , Wordpress, MySQL .

- Follow the steps provided in the video .

  https://youtu.be/18rfWZYbS7o?si=Owj6a9VclTLl7PZX
- And copy paste the commands from the below website.

  https://portforwarded.com/install-wordpress-on-ubuntu-22-04-lts-lamp-stack/

Step 9: Buying a domain name.

- Go to https://www.godaddy.com/
- Buy a domain name .

Product	Quantity	Term	Price
.ONLINE Domain Registration burgerdxb.online	1 Domain	1 Year	AED4.30
		Subtotal:	AED4.30
		Tax:	AED0.22
		Total:	AED4.52

Step 10: Changing NameServers from godaddy to AWS.

- Follow the following video .

  https://youtu.be/RI8oy-HGkIQ?si=px-ZXntsABxBtlMU

Step 11: Obtaining SSL/TLS certification .

- Follow the instructions and commands provided in the following website.

  https://certbot.eff.org/instructions?ws=apache&os=snap

- **My HTTP website is running** Apache **on** Linux (snap)
- SSH into your server then, follow the commands
- `ubuntu@ip-172-31-33-59:~$ sudo snap install --classic certbot`
- `ubuntu@ip-172-31-33-59:~$ sudo ln -s /snap/bin/certbot /usr/bin/certbot`
- Next we go to “sudo nano /etc/apache2/sites-available/000-default.conf”

  and add our server name and server alias into the file.

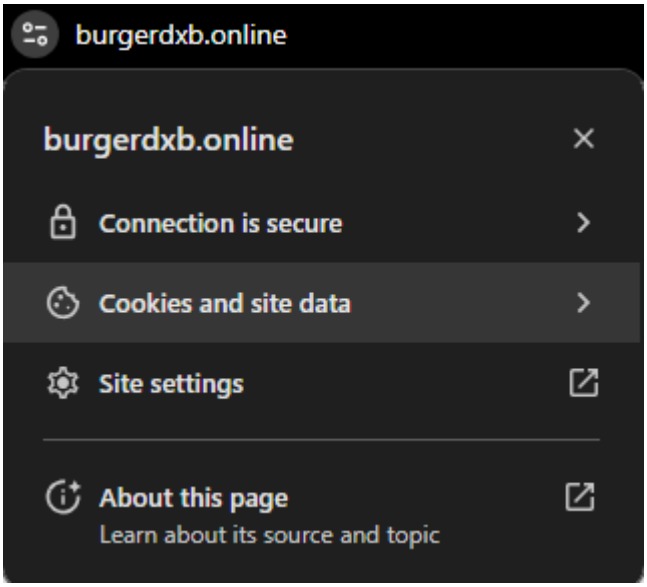
```
 GNU nano 7.2                    /etc/apache2/sites-available/000-default.conf
<VirtualHost *:80>
        # The ServerName directive sets the request scheme, hostname and port that
        # the server uses to identify itself. This is used when creating
        # redirection URLs. In the context 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/html
        ServerName www.burgerdxb.online
        ServerAlias burgerdxb.online

        # 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
```

```
ubuntu@ip-172-31-33-59:~$ sudo certbot --apache
Saving debug log to /var/log/letsencrypt/letsencrypt.log

Which names would you like to activate HTTPS for?
We recommend selecting either all domains, or all domains in a VirtualHost/server block.
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
1: burgerdxb.online
2: www.burgerdxb.online
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
Select the appropriate numbers separated by commas and/or spaces, or leave input
blank to select all options shown (Enter 'c' to cancel):
```

- Click enter to select all the domains.

```
Deploying certificate
Successfully deployed certificate for burgerdxb.online to /etc/apache2/sites-enabled/wordpress-le-ssl.conf
Successfully deployed certificate for www.burgerdxb.online to /etc/apache2/sites-enabled/wordpress-le-ssl.conf
Congratulations! You have successfully enabled HTTPS on https://burgerdxb.online and https://www.burgerdxb.online

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
If you like Certbot, please consider supporting our work by:
 * Donating to ISRG / Let's Encrypt:   https://letsencrypt.org/donate
 * Donating to EFF:                    https://eff.org/donate-le
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
```

- Now we have successfully obtained an SSL certification for our website.



- Testing automatic renewal for our website.

```
ubuntu@ip-172-31-33-59:~$ sudo certbot renew --dry-run
Saving debug log to /var/log/letsencrypt/letsencrypt.log

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
Processing /etc/letsencrypt/renewal/www.burgerdxb.online.conf
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
Simulating renewal of an existing certificate for www.burgerdxb.online and burgerdxb.online

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
Congratulations, all simulated renewals succeeded:
  /etc/letsencrypt/live/www.burgerdxb.online/fullchain.pem (success)
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
```