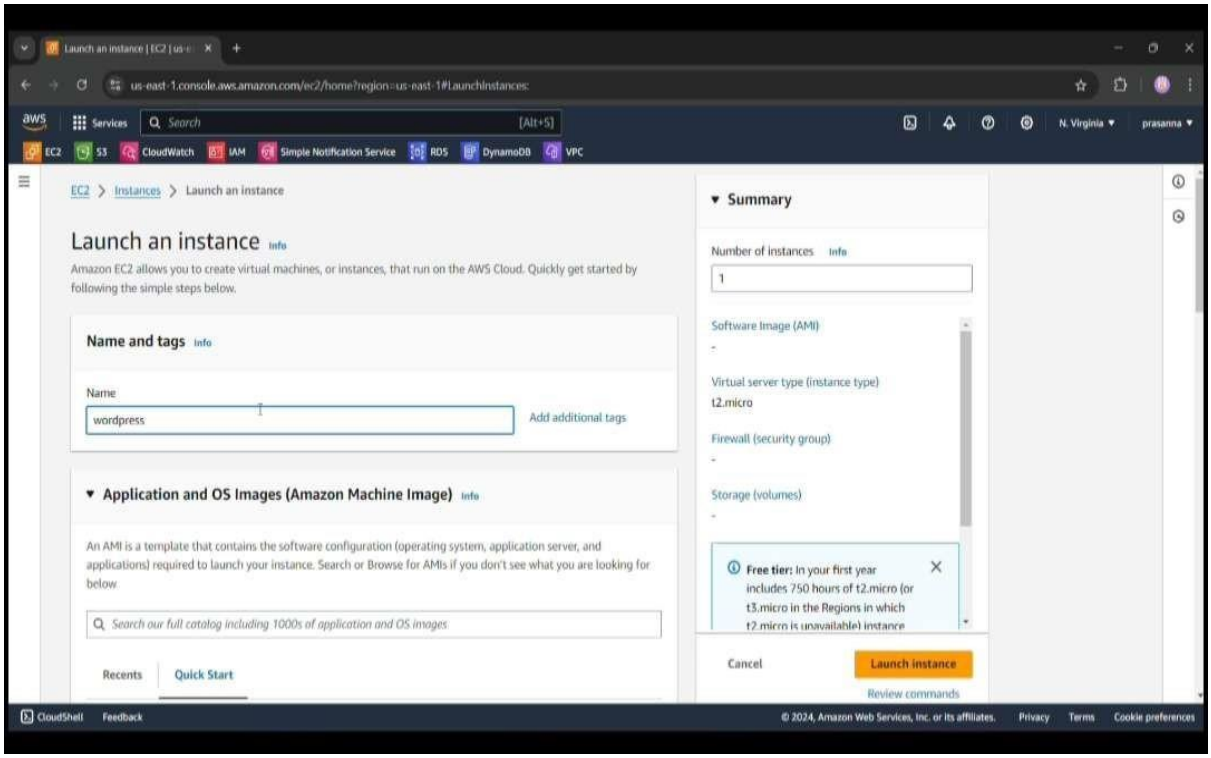
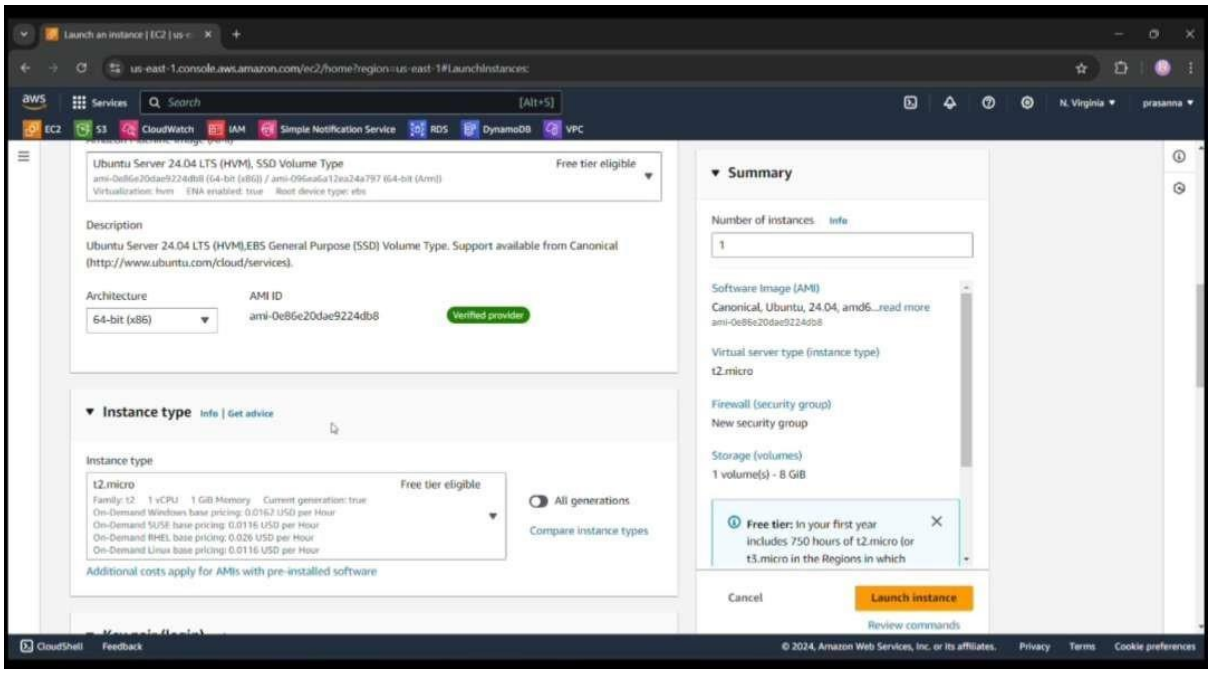
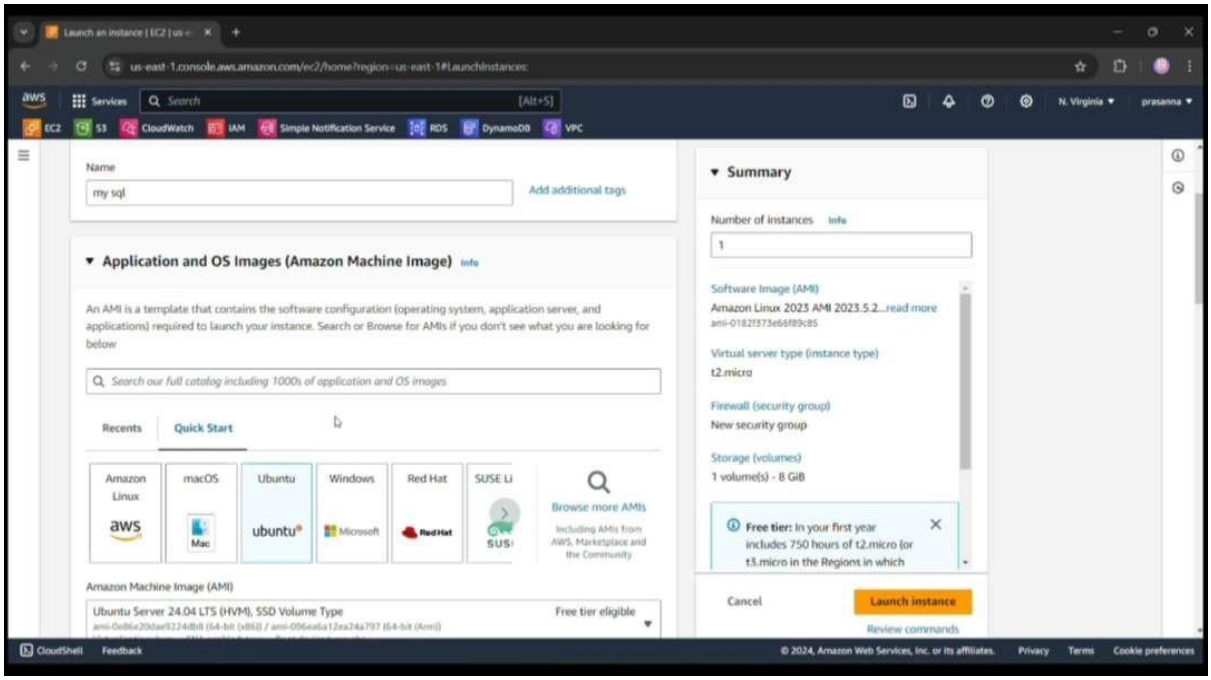
Deploying an application in Microservice architecture



Launch an instance and configure all settings

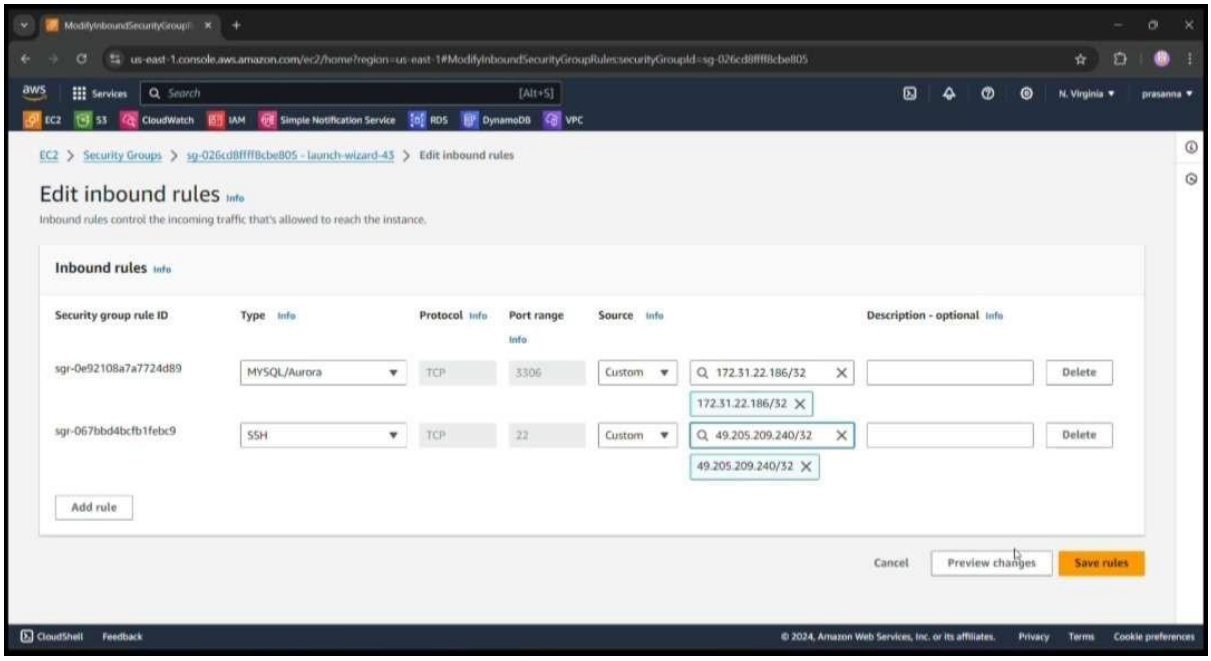


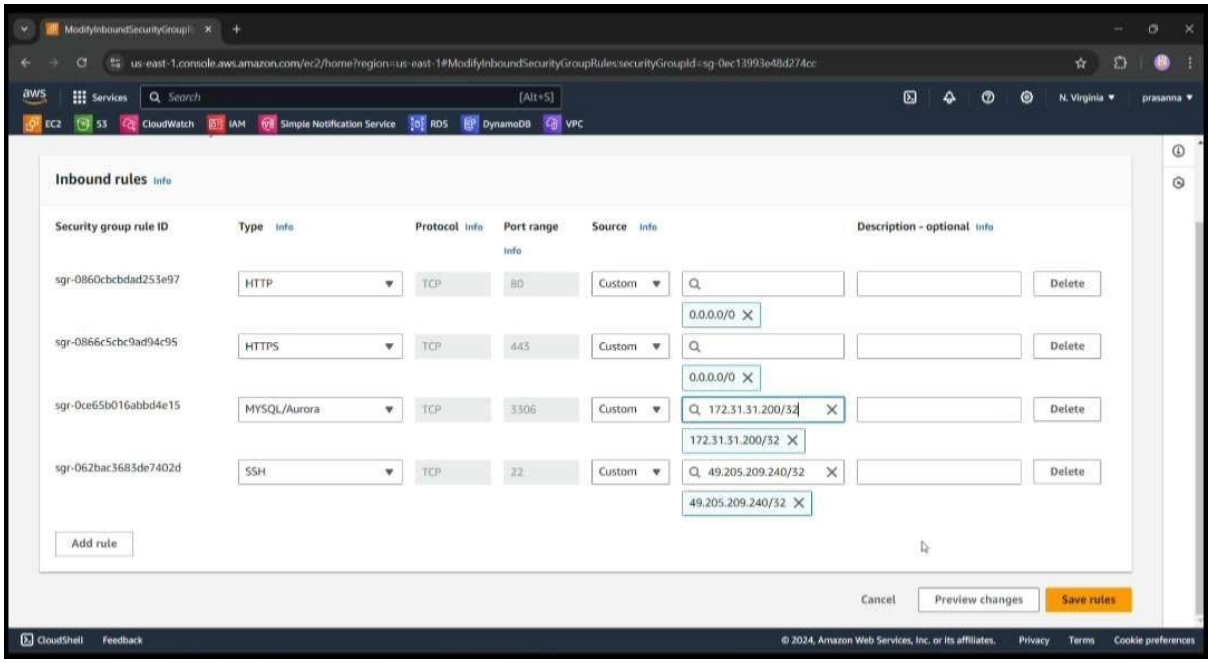
Configure further settings



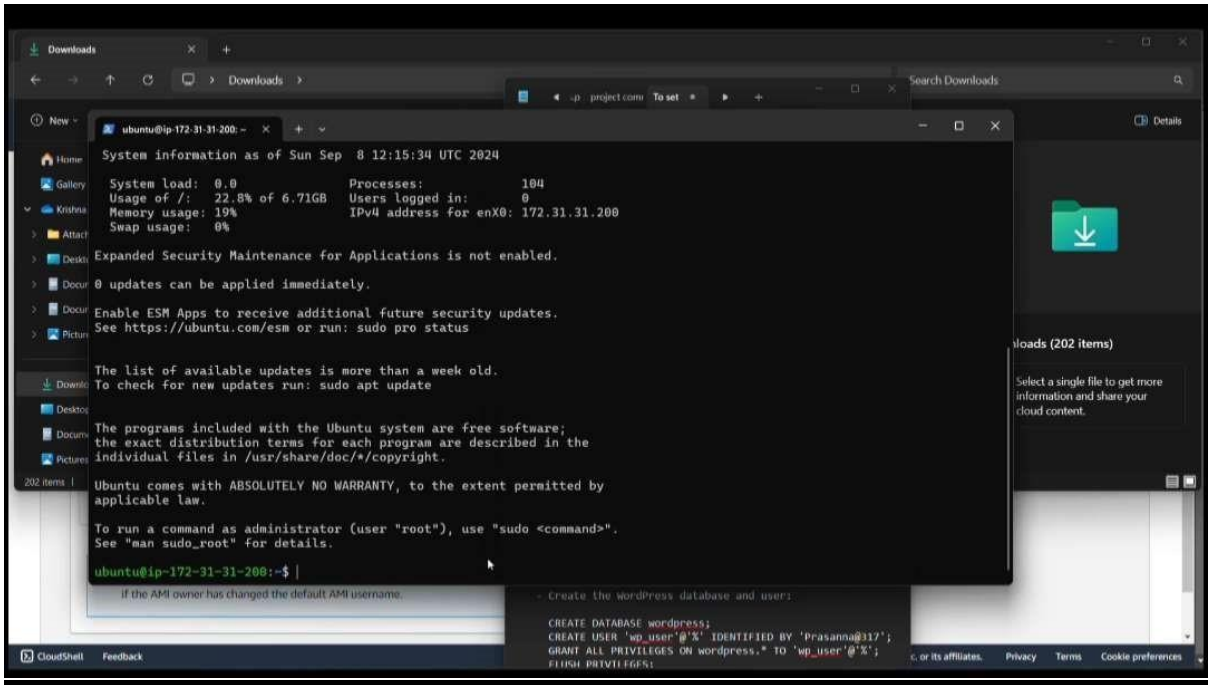
- Setting up Wordpress and MYSQL in two different EC2 instances
- Configure the necessary security group for the instances.
- EC2 instance type: t2-micro, AMI: ubuntu-*.
  Create a welcome page in wordpress that will be the homepage

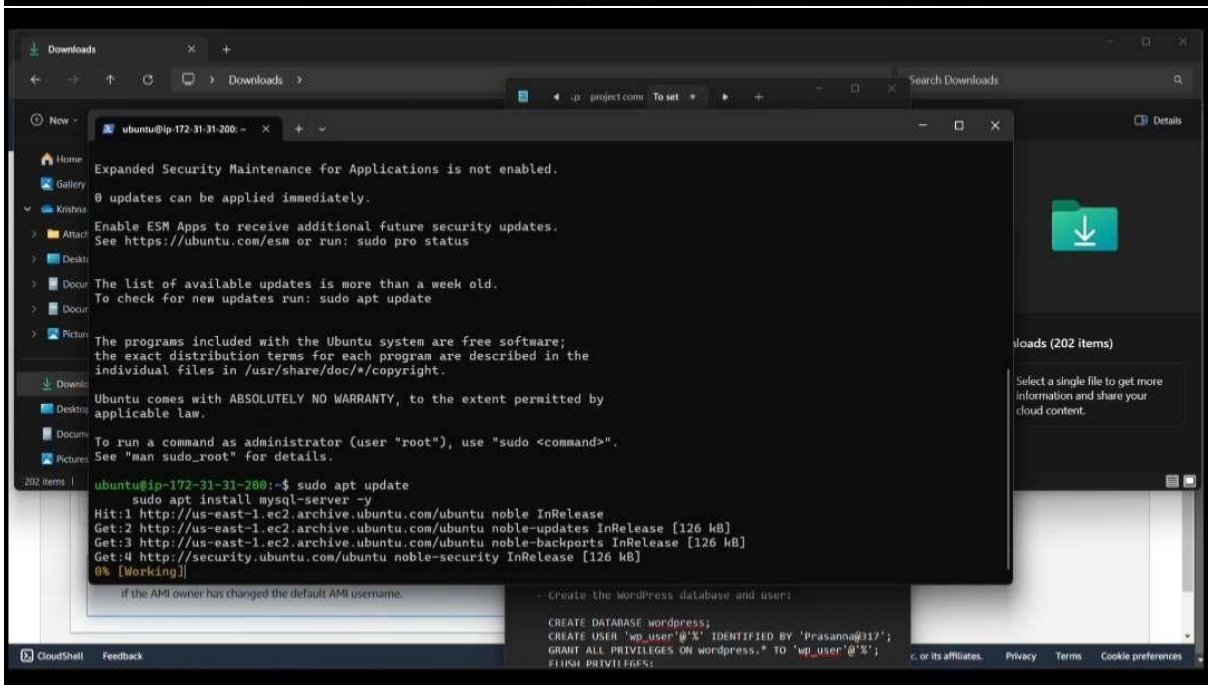
Complete setup is now done, browse with your public IP. And Wordpress will automatically connect to the MySQL server on another EC2.





Editing the inbound traffic


Downloads
Search Downloads
ubuntu@ip-172-31-31-200: ~
System information as of Sun Sep 8 12:15:34 UTC 2024
System load: 0.0 Processes: 104
Usage of /: 22.8% of 6.71GB Users logged in: 0
Memory usage: 19% IPv4 address for enX0: 172.31.31.200
Swap usage: 0%
Expanded Security Maintenance for Applications is not enabled.
0 updates can be applied immediately.
Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status
The list of available updates is more than a week old.
To check for new updates run: sudo apt update
The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.
Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.
ubuntu@ip-172-31-31-200:~$
if the AMI owner has changed the default AMI username.
Create the WordPress database and user:
CREATE DATABASE wordpress;
CREATE USER 'wp_user'@'%' IDENTIFIED BY 'Prasanna@317';
GRANT ALL PRIVILEGES ON wordpress.* TO 'wp_user'@'%';
FLUSH PRIVILEGES;
CloudShell
Feedback
Privacy
Terms
Cookie preferences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applicable law.
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.
ubuntu@ip-172-31-31-200:~$ sudo apt update
sudo apt install mysql-server -y
Hit:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble InRelease
Get:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates InRelease [126 kB]
Get:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports InRelease [126 kB]
Get:4 http://security.ubuntu.com/ubuntu noble-security InRelease [126 kB]
0% [Working]
if the AMI owner has changed the default AMI username.
Create the WordPress database and user:
CREATE DATABASE wordpress;
CREATE USER 'wp_user'@'%' IDENTIFIED BY 'Prasanna@317';
GRANT ALL PRIVILEGES ON wordpress.* TO 'wp_user'@'%';
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CloudShell
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Privacy
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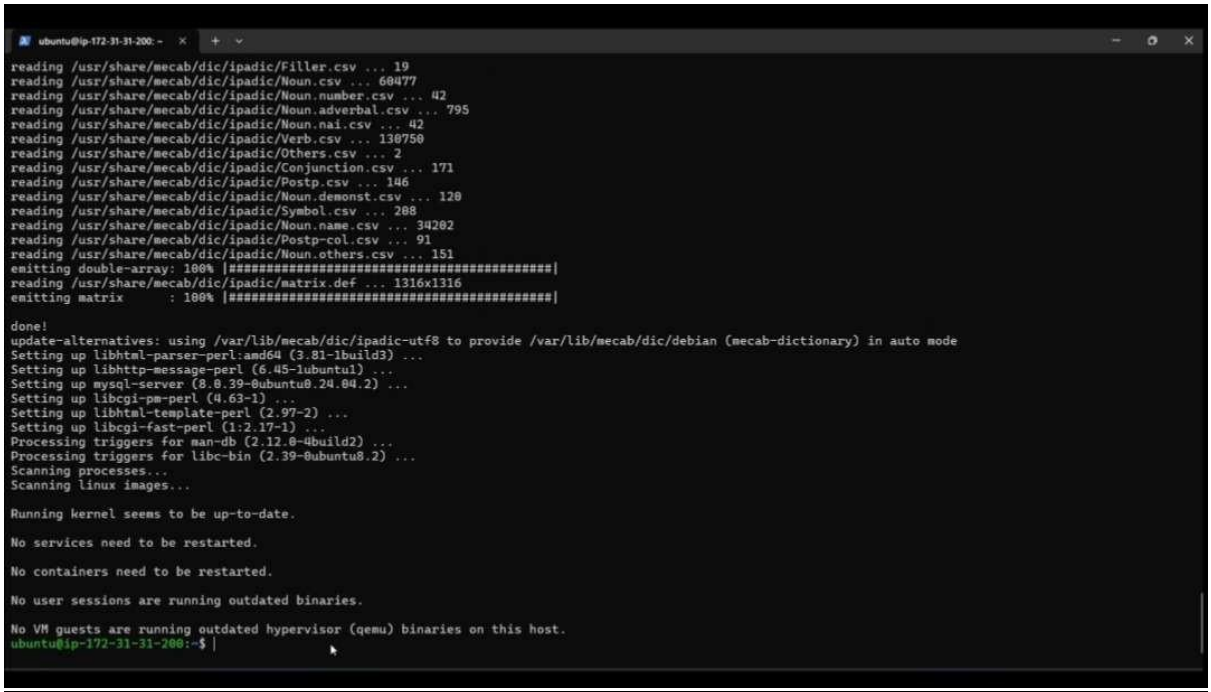
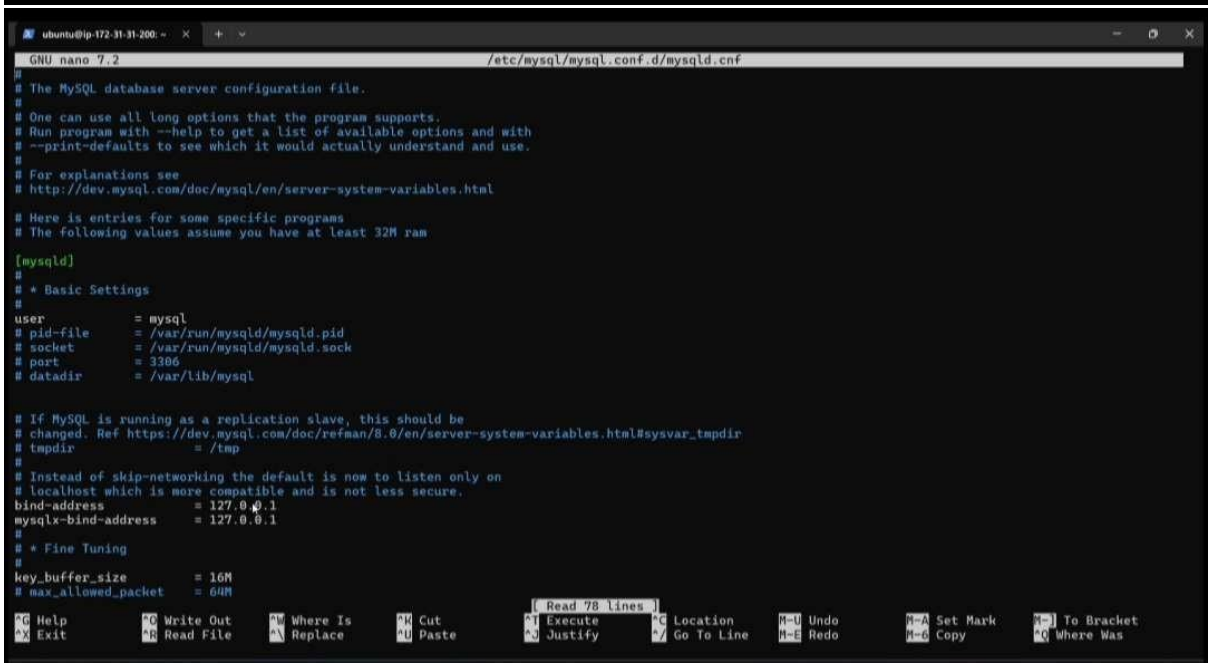
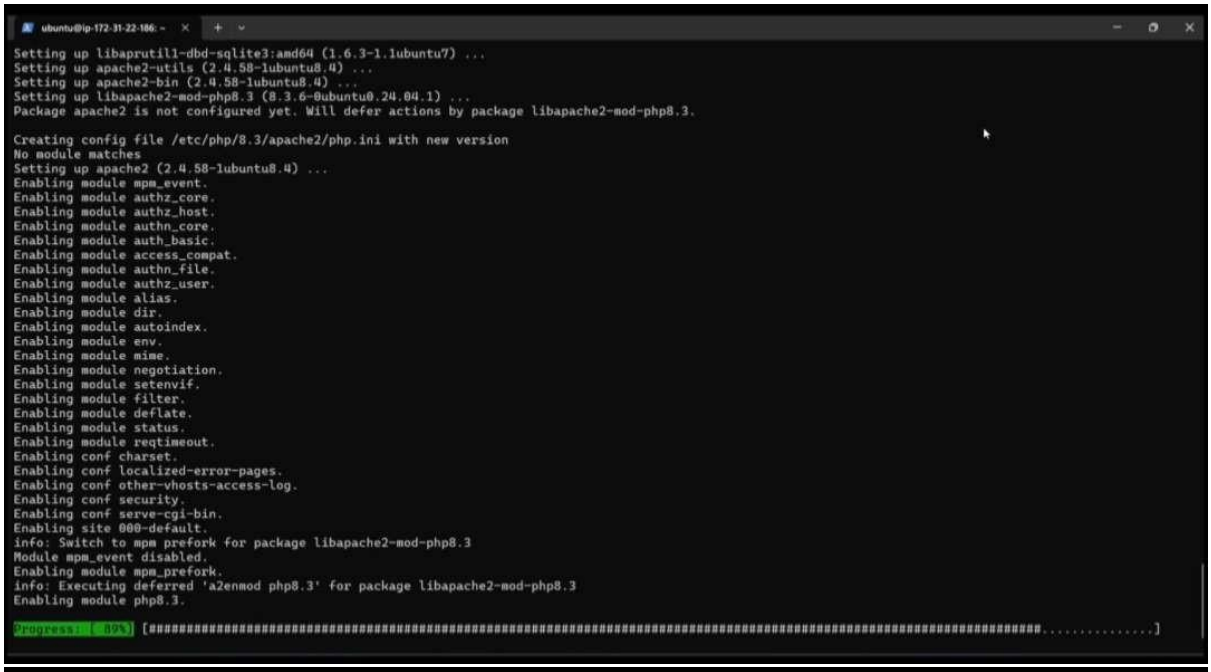
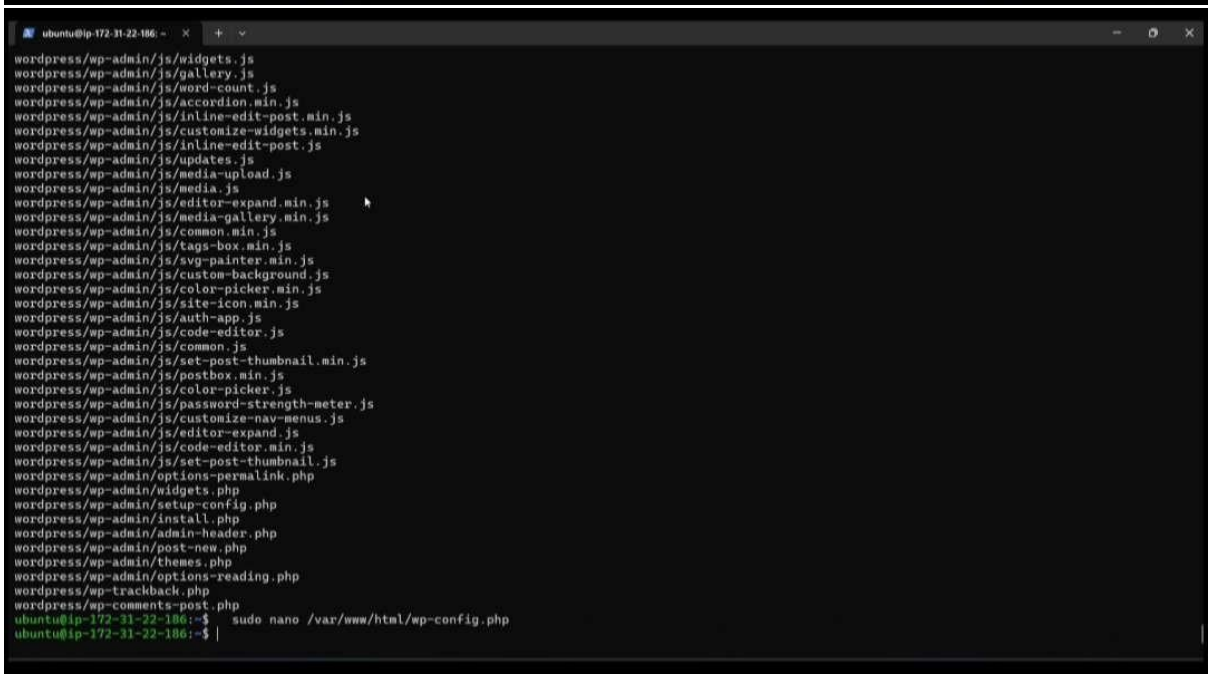
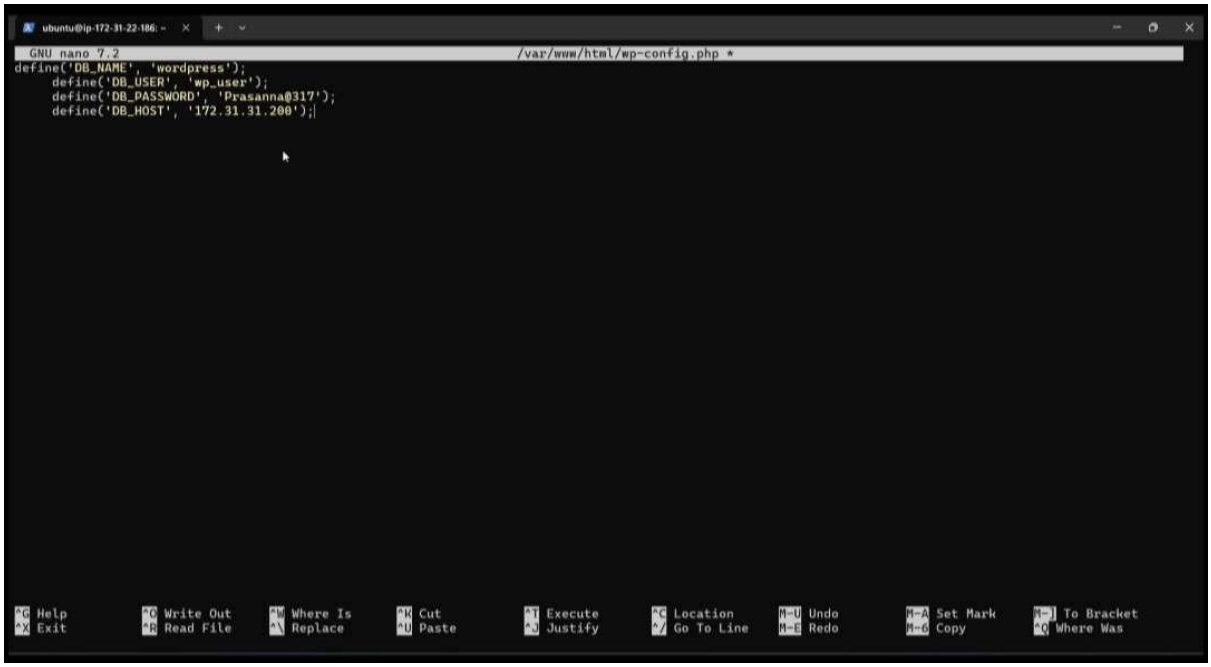

ubuntu@ip-172-31-31-200: ~
reading /usr/share/mecab/dic/ipadic/Filler.csv ... 19
reading /usr/share/mecab/dic/ipadic/Noun.csv ... 60477
reading /usr/share/mecab/dic/ipadic/Noun.number.csv ... 42
reading /usr/share/mecab/dic/ipadic/Noun.adverbal.csv ... 795
reading /usr/share/mecab/dic/ipadic/Noun.nai.csv ... 42
reading /usr/share/mecab/dic/ipadic/Verb.csv ... 130750
reading /usr/share/mecab/dic/ipadic/Others.csv ... 2
reading /usr/share/mecab/dic/ipadic/Conjunction.csv ... 171
reading /usr/share/mecab/dic/ipadic/Postp.csv ... 146
reading /usr/share/mecab/dic/ipadic/Noun.demonst.csv ... 120
reading /usr/share/mecab/dic/ipadic/Symbol.csv ... 208
reading /usr/share/mecab/dic/ipadic/Noun.name.csv ... 34202
reading /usr/share/mecab/dic/ipadic/Postp-col.csv ... 91
reading /usr/share/mecab/dic/ipadic/Noun.others.csv ... 151
emitting double-array: 100% |###|
reading /usr/share/mecab/dic/ipadic/matrix.def ... 1316x1316
emitting matrix   : 100% |###|
done!
update-alternatives: using /var/lib/mecab/dic/ipadic-utf8 to provide /var/lib/mecab/dic/debian (mecab-dictionary) in auto mode
Setting up libhtml-parser-perl:amd64 (3.81-1build3) ...
Setting up libhttp-message-perl (6.45-1ubuntu1) ...
Setting up mysql-server (8.0.39-0ubuntu0.24.04.2) ...
Setting up libcgi-pm-perl (4.63-1) ...
Setting up libhtml-template-perl (2.97-2) ...
Setting up libcgi-fast-perl (1:2.17-1) ...
Processing triggers for man-db (2.12.0-4build2) ...
Processing triggers for libc-bin (2.39-0ubuntu8.2) ...
Scanning processes...
Scanning linux images...
Running kernel seems to be up-to-date.
No services need to be restarted.
No containers need to be restarted.
No user sessions are running outdated binaries.
No VM guests are running outdated hypervisor (qemu) binaries on this host.
ubuntu@ip-172-31-31-200:~$


ubuntu@ip-172-31-31-200: ~
GNU nano 7.2 /etc/mysql/mysql.conf.d/mysqld.cnf
The MySQL database server configuration file.
One can use all long options that the program supports.
Run program with --help to get a list of available options and with
--print-defaults to see which it would actually understand and use.
For explanations see
http://dev.mysql.com/doc/mysql/en/server-system-variables.html
Here is entries for some specific programs
The following values assume you have at least 32M ram
[mysqld]
# * Basic Settings
user = mysql
# pid-file = /var/run/mysqld/mysqld.pid
# socket = /var/run/mysqld/mysqld.sock
# port = 3306
# datadir = /var/lib/mysql
# If MySQL is running as a replication slave, this should be
# changed. Ref https://dev.mysql.com/doc/refman/8.0/en/server-system-variables.html#sysvar_tmpdir
# tmpdir = /tmp
# Instead of skip-networking the default is now to listen only on
# localhost which is more compatible and is not less secure.
bind-address = 127.0.0.1
mysqlx-bind-address = 127.0.0.1
# * Fine Tuning
key_buffer_size = 16M
# max_allowed_packet = 64M
[Read 78 lines]
^G Help ^O Write Out ^W Where Is ^K Cut ^T Execute ^C Location M-U Undo M-A Set Mark M-] To Bracket
^X Exit ^R Read File ^\ Replace ^U Paste ^J Justify ^/ Go To Line M-E Redo M-6 Copy ^Q Where Was

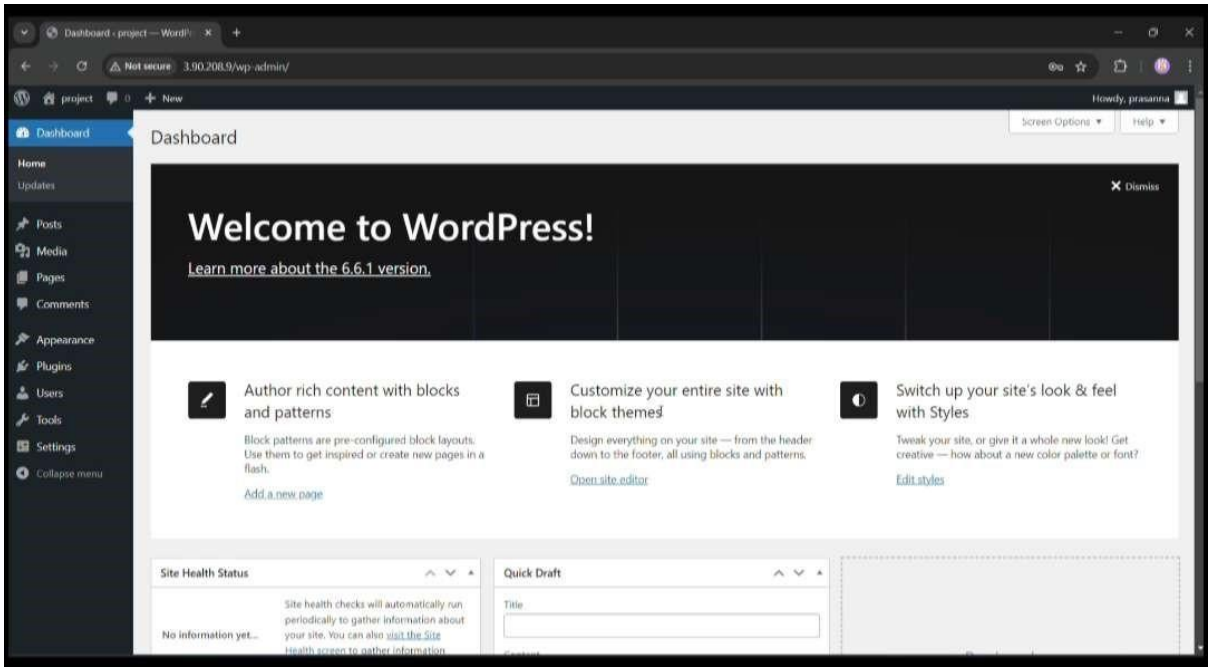




Complete setup is now done, browse with your public IP. And Wordpress will automatically connect to the MySQL server on another EC2.


ubuntu@ip-172-31-22-186: ~
GNU nano 7.2 /var/www/html/wp-config.php *
define('DB_NAME', 'wordpress');
define('DB_USER', 'wp_user');
define('DB_PASSWORD', 'Prasanna@317');
define('DB_HOST', '172.31.31.200');
^G Help ^O Write Out ^W Where Is ^K Cut ^T Execute ^C Location M-U Undo M-A Set Mark M-] To Bracket
^X Exit ^R Read File ^\ Replace ^U Paste ^J Justify ^/ Go To Line M-E Redo M-6 Copy ^Q Where Was


Not secure 3.90.208.9
Apache2 Default Page
Ubuntu
It works!
This is the default welcome page used to test the correct operation of the Apache2 server after installation on Ubuntu systems. It is based on the equivalent page on Debian, from which the Ubuntu Apache packaging is derived. If you can read this page, it means that the Apache HTTP server installed at this site is working properly. You should replace this file (located at /var/www/html/index.html) before continuing to operate your HTTP server.
If you are a normal user of this web site and don't know what this page is about, this probably means that the site is currently unavailable due to maintenance. If the problem persists, please contact the site's administrator.
Configuration Overview
Ubuntu's Apache2 default configuration is different from the upstream default configuration, and split into several files optimized for interaction with Ubuntu tools. The configuration system is fully documented in /usr/share/doc/apache2/README.Debian.gz. Refer to this for the full documentation. Documentation for the web server itself can be found by accessing the manual if the apache2-doc package was installed on this server.
The configuration layout for an Apache2 web server installation on Ubuntu systems is as follows:
/etc/apache2/
|-- apache2.conf
| `-- ports.conf
|-- mods-enabled
| |-- *.load
| `-- *.conf
|-- conf-enabled
| `-- *.conf
|-- sites-enabled
| `-- *.conf



Open your browser and navigate to your WordPress instance's public IP address. Follow the WordPress installation wizard to complete the setup.