

# Anik Bepari (arnobbepari935@gmail.com)

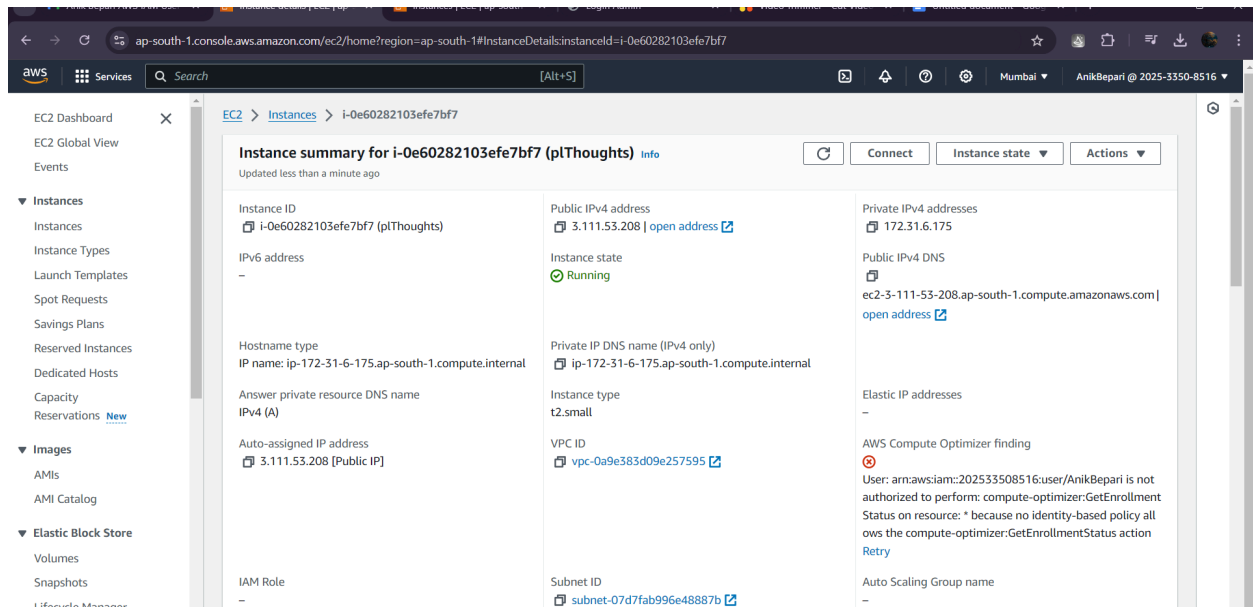
## Pearlthoughts Task-3--Deploy medusa on Ec2 instance

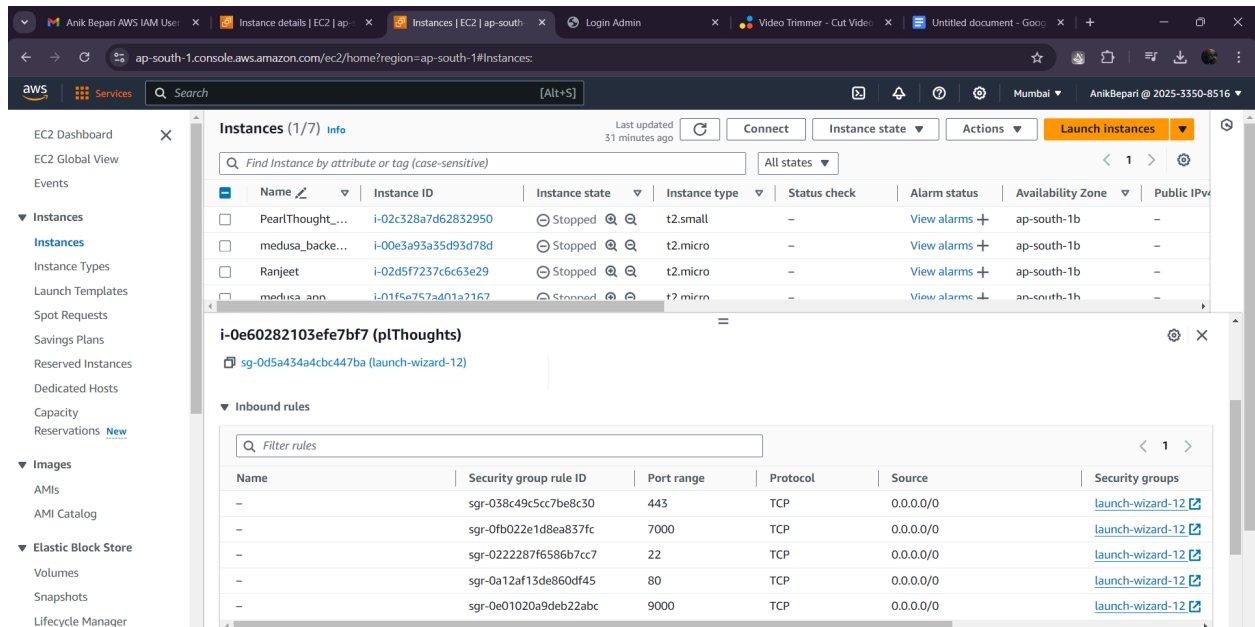
### -- 16/09/2024

#### Prerequisites:

1. **AWS Account:** Have to have an AWS account set up.
2. **Key Pair:** Need to create an AWS key pair to access your EC2 instance via SSH.
3. **Node.js, PostgreSQL, and Medusa CLI:** Similar to my local setup, I will need Node.js, PostgreSQL, and Medusa CLI on the EC2 instance.

#### Step 1: Launch an AWS EC2 Instance





## Connected to the EC2 Instance:

- Used SSH to connect to the instance. = `ssh -i /path to pem file ec2-user@My-instance-public-ip`

```
Microsoft Windows [Version 10.0.22631.4169]
(c) Microsoft Corporation. All rights reserved.

C:\Users\abepa>ssh -i C:/Users/abepa/Downloads/pL-t3.pem ubuntu@ec2-3-111-53-208.ap-south-1.compute.amazonaws.com
The authenticity of host 'ec2-3-111-53-208.ap-south-1.compute.amazonaws.com (3.111.53.208)' can't be established.
ED25519 key fingerprint is SHA256:B+8/tY7xeCAW+suDNFDuggx7PS5EGDH7CGEuxWzMHwA.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added 'ec2-3-111-53-208.ap-south-1.compute.amazonaws.com' (ED25519) to the list of known hosts.
Welcome to Ubuntu 24.04 LTS (GNU/Linux 6.8.0-1012-aws x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/pro

System information as of Mon Sep 16 11:43:37 UTC 2024

System load:  0.43           Processes:    106
Usage of /:   22.8% of 6.71GB Users logged in: 0
Memory usage: 10%          IPv4 address for enX0: 172.31.6.175
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
```

## Step 2: Update the System & Install Dependencies

`sudo apt update -y`

```

ubuntu@ip-172-31-6-175:~$ sudo apt update -y
Hit:1 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble InRelease
Get:2 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates InRelease [126 kB]
Get:3 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-backports InRelease [126 kB]
Get:4 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 Packages [15.0 MB]
Get:5 http://security.ubuntu.com/ubuntu noble-security InRelease [126 kB]
Get:6 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/universe Translation-en [5982 kB]
Get:7 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 Components [3871 kB]
Get:8 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 c-n-f Metadata [301 kB]
Get:9 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/multiverse amd64 Packages [269 kB]
Get:10 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/multiverse Translation-en [118 kB]
Get:11 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/multiverse amd64 Components [35.0 kB]
Get:12 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/multiverse amd64 c-n-f Metadata [8328 B]
Get:13 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 Packages [502 kB]
Get:14 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main Translation-en [123 kB]
Get:15 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 c-n-f Metadata [8264 B]
Get:16 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/universe amd64 Packages [365 kB]
Get:17 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/universe Translation-en [150 kB]
Get:18 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/universe amd64 Components [45.0 kB]
Get:19 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/universe amd64 c-n-f Metadata [14.3 kB]
Get:20 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/restricted amd64 Packages [317 kB]
Get:21 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/restricted Translation-en [61.5 kB]
Get:22 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/restricted amd64 c-n-f Metadata [424 B]
Get:23 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/multiverse amd64 Packages [14.4 kB]
Get:24 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/multiverse Translation-en [3608 B]
Get:25 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/multiverse amd64 Components [212 B]
Get:26 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/multiverse amd64 c-n-f Metadata [532 B]

```

## Installed Node.js and NPM:

```

ubuntu@ip-172-31-6-175:~$ curl -fsSL https://deb.nodesource.com/setup_16.x | sudo -E bash -
133 packages can be upgraded. Run 'apt list --upgradable' to see them.
ubuntu@ip-172-31-6-175:~$ sudo apt-get install -y nodejs

```

### DEPRECATION WARNING

Node.js 16.x is no longer actively supported!

You will not receive security or critical stability updates for this version.

You should migrate to a supported version of Node.js as soon as possible.  
Use the installation script that corresponds to the version of Node.js you wish to install. e.g.

```

* https://deb.nodesource.com/setup_16.x - Node.js 16 "Gallium" (deprecated)
* https://deb.nodesource.com/setup_18.x - Node.js 18 "Hydrogen" (Maintenance)
* https://deb.nodesource.com/setup_19.x - Node.js 19 "Nineteen" (deprecated)
* https://deb.nodesource.com/setup_20.x - Node.js 20 LTS "Iron" (recommended)
* https://deb.nodesource.com/setup_21.x - Node.js 21 "Iron" (current)

```

Please see <https://github.com/nodejs/Release> for details about which version may be appropriate for you.

The **NodeSource** Node.js distributions repository contains information both about supported versions of Node.js and supported Linux

```

Get:6 https://deb.nodesource.com/node_16.x nodistro/main amd64 Packages [7462 B]
Fetched 19.6 kB in 0s (40.1 kB/s)
Reading package lists... Done
2024-09-16 11:45:24 - Repository configured successfully. To install Node.js, run: apt-get install nodejs -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following NEW packages will be installed:
  nodejs
0 upgraded, 1 newly installed, 0 to remove and 130 not upgraded.
Need to get 27.5 MB of archives.

```

```

amd64 0.16.1-1ubuntu1 repository configured successfully. To install nodejs, run: apt-get install nodejs y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following NEW packages will be installed:
  nodejs
0 upgraded, 1 newly installed, 0 to remove and 130 not upgraded.
Need to get 27.5 MB of archives.
After this operation, 128 MB of additional disk space will be used.
Get:1 https://deb.nodesource.com/node_16.x nodistro/main amd64 nodejs amd64 16.20.2-1nodesource1 [27.5 MB]
Fetched 27.5 MB in 0s (66.1 MB/s)
Selecting previously unselected package nodejs.
(Reading database ... 67745 files and directories currently installed.)
Preparing to unpack ../nodejs_16.20.2-1nodesource1_amd64.deb ...
Unpacking nodejs (16.20.2-1nodesource1) ...
Setting up nodejs (16.20.2-1nodesource1) ...
Processing triggers for man-db (2.12.0-4build2) ...
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.

```

## Installed PostgreSQL: sudo apt install postgresql postgresql-contrib

```

No VM guests are running outdated hypervisor (qemu) binaries on this host.
ubuntu@ip-172-31-6-175:~$ sudo apt install postgresql postgresql-contrib
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  libcommon-sense-perl libjson-perl libjson-xs-perl libllvm17t64 libpq5 libtypes-serialiser-perl postgresql-16
  postgresql-client-16 postgresql-client-common postgresql-common ssl-cert
Suggested packages:
  postgresql-doc postgresql-doc-16
The following NEW packages will be installed:
  libcommon-sense-perl libjson-perl libjson-xs-perl libllvm17t64 libpq5 libtypes-serialiser-perl postgresql
  postgresql-16 postgresql-client-16 postgresql-client-common postgresql-common postgresql-contrib ssl-cert
0 upgraded, 13 newly installed, 0 to remove and 130 not upgraded.
Need to get 43.5 MB of archives.
After this operation, 175 MB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/main amd64 libjson-perl all 4.10000-1 [81.9 kB]
Get:2 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 postgresql-client-common all 257build1.1
[36.4 kB]
Get:3 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/main amd64 ssl-cert all 1.1.2ubuntu1 [17.8 kB]
Get:4 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 postgresql-common all 257build1.1 [161 kB]
Get:5 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/main amd64 libcommon-sense-perl amd64 3.75-3build3 [20.4 kB]
Get:6 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/main amd64 libtypes-serialiser-perl all 1.01-1 [11.6 kB]
Get:7 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/main amd64 libjson-xs-perl amd64 4.030-2build3 [83.6 kB]
Get:8 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/main amd64 libllvm17t64 amd64 1:17.0.6-9ubuntu1 [26.2 MB]
Get:9 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 libpq5 amd64 16.4-0ubuntu0.24.04.2 [141 kB]

```

## Install Medusa CLI: sudo npm install -g @medusajs/medusa-cli

```

ubuntu@ip-172-31-6-175:~$ sudo npm install -g @medusajs/medusa-cli
npm WARN deprecated @oclif/screen@1.0.4: Deprecated in favor of @oclif/core
npm WARN deprecated @oclif/help@1.0.15: Package no longer supported. Contact Support at https://www.npmjs.com/support for more info.
npm WARN deprecated @oclif/command@1.8.36: Package no longer supported. Contact Support at https://www.npmjs.com/support for more info.
npm WARN deprecated inflight@1.0.6: This module is not supported, and leaks memory. Do not use it. Check out lru-cache if you want a good and tested way to coalesce async requests by a key value, which is much more comprehensive and powerful.
npm WARN deprecated @oclif/errors@1.3.6: Package no longer supported. Contact Support at https://www.npmjs.com/support for more info.
npm WARN deprecated glob@8.1.0: Glob versions prior to v9 are no longer supported
npm WARN deprecated @oclif/errors@1.3.5: Package no longer supported. Contact Support at https://www.npmjs.com/support for more info.
npm WARN deprecated glob@7.2.3: Glob versions prior to v9 are no longer supported
npm WARN deprecated @oclif/parser@3.8.17: Package no longer supported. Contact Support at https://www.npmjs.com/support for more info.
npm WARN deprecated @oclif/config@1.18.16: Package no longer supported. Contact Support at https://www.npmjs.com/support for more info.
npm WARN deprecated @oclif/config@1.18.2: Package no longer supported. Contact Support at https://www.npmjs.com/support for more info.
npm WARN deprecated @oclif/config@1.18.17: Package no longer supported. Contact Support at https://www.npmjs.com/support for more info.
npm WARN deprecated cli-ux@5.6.7: Package no longer supported. Contact Support at https://www.npmjs.com/support for more info.

added 337 packages, and audited 338 packages in 51s

50 packages are looking for funding

```

## Set Up PostgreSQL

**Start PostgreSQL:** `sudo service postgresql start`

**Created PostgreSQL User and Database:**

```

ubuntu@ip-172-31-6-175:~$ sudo service postgresql start
ubuntu@ip-172-31-6-175:~$ sudo -u postgres psql
psql (16.4 (Ubuntu 16.4-0ubuntu0.24.04.2))
Type "help" for help.

postgres=# CREATE USER medusa_user WITH PASSWORD 'yourpassword';
CREATE ROLE
postgres=# CREATE DATABASE medusa_db OWNER medusa_user;
CREATE DATABASE
postgres=# \q
ubuntu@ip-172-31-6-175:~$ medusa new my-medusa-store

Medusa collects anonymous usage analytics
to help improve Medusa for all users.

If you'd like to opt-out, you can use `medusa telemetry --disable`

✓Created starter directory layout - 1876ms
info: Installing packages...

info: Preferred package manager set to "npm"
npm WARN deprecated @oclif/screen@1.0.4: Deprecated in favor of @oclif/core
npm WARN deprecated @oclif/command@1.8.36: Package no longer supported. Contact Support at https://www.npmjs.com/support for more info.
npm WARN deprecated w3c-hr-time@1.0.2: Use your platform's native performance.now() and performance.timeOrigin.
npm WARN deprecated abab@2.0.6: Use your platform's native atob() and btoa() methods instead

```

```

Will attempt to setup Postgres database "medusa-db-4rrrc" with credentials:
  user: ubuntu
  password: ***
  port: 5432
  host: localhost
Do you wish to continue with these credentials?

  Change credentials
? DB user medusa_user
? DB password [hidden]
? DB port 5432
? DB host localhost
X Skipping database setup. - 42
warn: Failed to setup database; install PostgreSQL or make sure to manage your database connection manually
PgGodError {
  name: 'PDG_ERR:UnexpectedError',
  message: 'permission denied to create database',
  code: '42501',
  stack: 'error: permission denied to create database\n' +
    '   at /usr/lib/node_modules/@medusajs/medusa-cli/node_modules/pg/lib/client.js:526:17\n' +
    '   at processTicksAndRejections (node:internal/process/task_queues:96:5)\n' +
    '   at async createDatabase (/usr/lib/node_modules/@medusajs/medusa-cli/node_modules/pg-god/lib/god-stuff.js:34:9)\n' +
    '   at async setupDB (/usr/lib/node_modules/@medusajs/medusa-cli/dist/commands/new.js:346:5)\n' +
    '   at async newStarter (/usr/lib/node_modules/@medusajs/medusa-cli/dist/commands/new.js:503:13)'
}

```

Deployed Medusa

**Create a Medusa Project:** medusa new my-medusa-store

```

ubuntu@ip-172-31-6-175:~/my-medusa-store$ cd my-medusa-store
-bash: cd: my-medusa-store: No such file or directory

ubuntu@ip-172-31-6-175:~/my-medusa-store$ medusa develop^C^C
ubuntu@ip-172-31-6-175:~/my-medusa-store$ npm install

up to date, audited 2028 packages in 6s

331 packages are looking for funding
  run `npm fund` for details

21 vulnerabilities (9 moderate, 9 high, 3 critical)

To address issues that do not require attention, run:
  npm audit fix

To address all issues (including breaking changes), run:
  npm audit fix --force

Run `npm audit` for details.
ubuntu@ip-172-31-6-175:~/my-medusa-store$ npm run seed

```

> Updated the **.env** File to connect database with medusa app using : nano .env

Set the **DATABASE\_URL** to match my PostgreSQL configuration:

Seeding

```

ubuntu@ip-172-31-6-175:~/my-medusa-store$ npm run seed

> medusa-starter-default@0.0.1 seed
> cross-env medusa seed -f ./data/seed.json

error: database "medusa-db" does not exist
    at Parser.parseErrorMessage (/home/ubuntu/my-medusa-store/node_modules/pg-protocol/dist/parser.js:283:98)
    at Parser.handlePacket (/home/ubuntu/my-medusa-store/node_modules/pg-protocol/dist/parser.js:122:29)
    at Parser.parse (/home/ubuntu/my-medusa-store/node_modules/pg-protocol/dist/parser.js:35:38)
    at Socket.<anonymous> (/home/ubuntu/my-medusa-store/node_modules/pg-protocol/dist/index.js:11:42)
    at Socket.emit (node:events:513:28)
    at addChunk (node:internal/streams/readable:315:12)
    at readableAddChunk (node:internal/streams/readable:289:9)
    at Socket.Readable.push (node:internal/streams/readable:228:10)
    at TCP.onStreamRead (node:internal/stream_base_commons:190:23) {
  length: 95,
  severity: 'FATAL',
  code: '3D000',
  detail: undefined,
  hint: undefined,
  position: undefined,
  ...
}

```

## Changing login credential

```

ubuntu@ip-172-31-6-175:~/my-medusa-store$ npx medusa user -e admin@medusa.com -p adminpassword
[medusa-config] ⚠ redis_url not found. A fake redis instance will be used.
info: Using fake Redis
✓Models initialized - 29ms
✓Plugin models initialized - 53ms
✓Strategies initialized - 162ms
* Initializing database
Error: The specified PostgreSQL database does not exist. Please create it and try again.
database "medusa-db" does not exist
    at handlePostgresDatabaseError (/home/ubuntu/my-medusa-store/node_modules/@medusajs/medusa/dist/common/handle-postgres-database-error.js:14:15)
    at processTicksAndRejections (node:internal/process/task_queues:96:5)

```

## Install Project Dependencies:npm install

```

ubuntu@ip-172-31-6-175:~/my-medusa-store$ npm run start

> medusa-starter-default@0.0.1 start
> cross-env npm run build && medusa start

> medusa-starter-default@0.0.1 build
> cross-env npm run clean && npm run build:server && npm run build:admin

> medusa-starter-default@0.0.1 clean
> cross-env ./node_modules/.bin/rimraf dist

> medusa-starter-default@0.0.1 build:server
> cross-env npm run clean && tsc -p tsconfig.server.json

> medusa-starter-default@0.0.1 clean
> cross-env ./node_modules/.bin/rimraf dist

> medusa-starter-default@0.0.1 build:admin
> cross-env medusa-admin build

✓Webpack
Compiled successfully in 2.12m

```

## Start Medusa Backend

### 1. Start Medusa in Development Mode:

```

ubuntu@ip-172-31-6-175:~/my-medusa-store$ npm run start
> medusa-starter-default@0.0.1 start
> cross-env npm run build && medusa start

> medusa-starter-default@0.0.1 build
> cross-env npm run clean && npm run build:server && npm run build:admin

> medusa-starter-default@0.0.1 clean
> cross-env ./node_modules/.bin/rimraf dist

> medusa-starter-default@0.0.1 build:server
> cross-env npm run clean && tsc -p tsconfig.server.json

> medusa-starter-default@0.0.1 clean
> cross-env ./node_modules/.bin/rimraf dist

> medusa-starter-default@0.0.1 build:admin
> cross-env medusa-admin build

✔ Webpack
  Compiled successfully in 2.64m

```

```

[medusa-config] ⚠ redis_url not found. A fake redis instance will be used.
info:   Using fake Redis
✔ Models initialized - 152ms
✔ Plugin models initialized - 246ms
✔ Strategies initialized - 157ms
✔ Database initialized - 485ms
✔ Repositories initialized - 258ms
✔ Services initialized - 616ms
" Initializing modules
✔ Modules initialized - 318ms
✔ Express initialized - 2ms
! Initializing plugins
✔ Plugins initialized - 2560ms
✔ Subscribers initialized - 484ms
✔ API initialized - 1838ms
" Initializing defaults
warn:   You don't have any notification provider plugins installed. You may want to add one to your project.
✔ Defaults initialized - 1453ms
" Initializing search engine indexing
✔ Indexing event emitted - 157ms
✔ Server is ready on port: 9000 - 154ms
info:   Processing sales_channel.created which has 0 subscribers

```

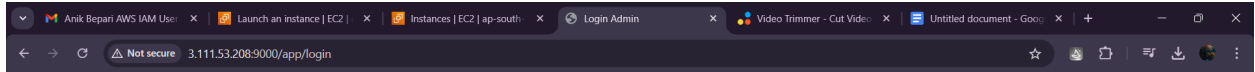
```

✔ Server is ready on port: 9000 - 154ms

```

It is running in my ec2 instance whic ip address :<http://3.111.53.208:9000/app/login>





## Log in to Medusa

Continue

[Forgot your password?](#)

