

PROJECT 2: AWS

1. Launch an EC2 instance

Language
English ▾



Sign up for AWS

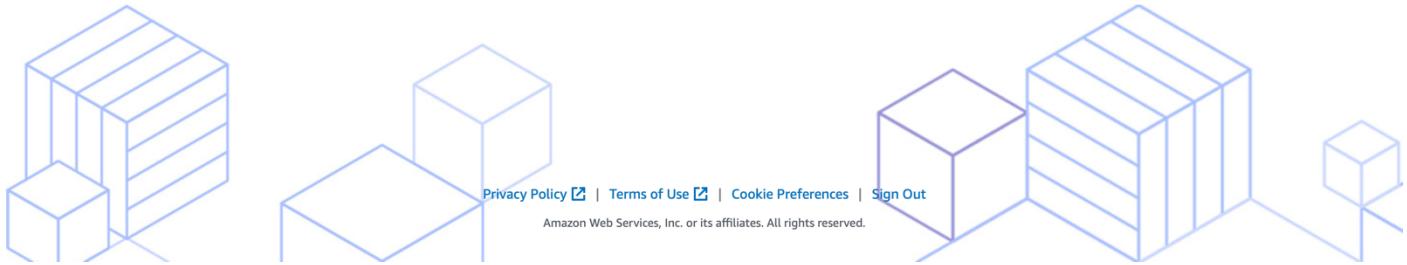
Confirm your identity

Verify code

1166

[Continue \(step 4 of 5\)](#)

Having trouble? Sometimes it takes up to 10 minutes to retrieve a verification code. If it's been longer than that, [return to the previous page](#) and try again.



Language
English ▾



Congratulations!

Thank you for signing up for AWS.

We are activating your account, which should only take a few minutes. You will receive an email when this is complete.

[Go to the AWS Management Console](#)

[Sign up for another account](#) or [contact sales](#).



AWS Services Search [Option+S] Ohio Anvita_reddy

Console Home

[Recently visited](#) [Applications](#) [Cost and usage](#)

No recently visited services

Explore one of these commonly visited AWS services.

[EC2](#) [S3](#) [RDS](#) [Lambda](#)

[View all services](#)

[Applications \(0\)](#) [Create application](#)

Region: US East (Ohio)

us-east-2 (Current Region) [Find applications](#)

Name Description Region Originating account

The data couldn't be retrieved. Try again later.

[Go to myApplications](#)

Welcome to AWS

Getting started with AWS [Info](#)

Learn the fundamentals and find valuable information to get the most out of AWS.

AWS Health

Open issues 0 Past 7 days

Scheduled changes 0

Cost and usage

Current month costs [Cost breakdown](#)

Forecasted month end costs [Cost breakdown](#)

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Amazon EC2 allows you to create virtual machines, or instances, that run on the AWS Cloud. Quickly get started by following the simple steps below.

Name and tags

Name Add additional tags

Application and OS Images (Amazon Machine Image)

An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. Search or Browse for AMIs if you don't see what you are looking for below.

Search our full catalog including 1000s of application and OS images

Quick Start

Amazon Linux	macOS	Ubuntu	Windows	Red Hat	SUSE Linux

Browse more AMIs [Info](#)

Including AMIs from AWS, Marketplace and the Community

Summary

Number of instances [Info](#)

1

Software Image (AMI)

Canonical, Ubuntu, 24.04, amd6... [read more](#)

ami-0ea3c35c5c3284d82

Virtual server type (instance type)

t2.micro

Firewall (security group)

New security group

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, 750 hours of public IPv4 address usage per month, 30 GiB of EBS storage, 2 million IOs, 1 GB of snapshots, and

[Cancel](#) [Launch instance](#) [Review commands](#)

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Sales Services Search [Option+S] On-Demand RHEL base pricing: 0.026 USD per Hour Additional costs apply for AMIs with pre-installed software

Create key pair

Key pair name
Key pairs allow you to connect to your instance securely.
 The name can include up to 255 ASCII characters. It can't include leading or trailing spaces.

Key pair type
 RSA RSA encrypted private and public key pair
 ED25519 ED25519 encrypted private and public key pair

Private key file format
 .pem For use with OpenSSH
 .ppk For use with PuTTY

When prompted, store the private key in a secure and accessible location on your computer. You will need it later to connect to your instance. [Learn more](#)

Cancel **Create key pair**

We'll create a new security group called 'launch-wizard-1' with the following rules:

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Sales Services Search [Option+S] On-Demand RHEL base pricing: 0.026 USD per Hour Additional costs apply for AMIs with pre-installed software

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Cancel **Create key pair**

We'll create a new security group called 'launch-wizard-1' with the following rules:

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Success
Successfully initiated launch of instance (i-0582756920c20d25b)

▶ Launch log

Next Steps

What would you like to do next with this instance, for example "create alarm" or "create backup"

Create billing and free tier usage alerts To manage costs and avoid surprise bills, set up email notifications for billing and free tier usage thresholds. Create billing alerts	Connect to your instance Once your instance is running, log into it from your local computer. Connect to instance Learn more	Connect an RDS database Configure the connection between an EC2 instance and a database to allow traffic flow between them. Connect an RDS database Create a new RDS database Learn more	Create EBS snapshot policy Create a policy that automates the creation, retention, and deletion of EBS snapshots. Create EBS snapshot policy
--	---	--	--

Launched instance

Here are some helpful resources to get you started

- [How to connect to your linux instance](#)
- [Learn about AWS Free Usage Tier](#)
- [Amazon EC2: User Guide](#)
- [Amazon EC2: Discussion Forum](#)
- [Install a LAMP server](#)

While your instances are launching you can also

- [Create status check alarms](#) to be notified when these instances fail status checks. (Additional charges may apply)
- [Create and attach additional EBS volumes](#). (Additional charges may apply)
- [Manage security groups](#)

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Instances (1) Info

Last updated less than a minute ago

Find Instance by attribute or tag (case-sensitive)

All states

Instance ID = i-0582756920c20d25b

Clear filters

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone
Anvita_Server	i-0582756920c20d25b	Running	t2.micro	2/2 checks passed	View alarms	us-east-2c

Select an instance

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Instances (1/1) Info

Last updated less than a minute ago Connect Instance state Actions Launch instances

Find Instance by attribute or tag (case-sensitive) All states

Instance ID = i-0582756920c20d25b Clear filters

Name Instance ID Instance state Instance type Status check Alarm status Availability Zone

Anvita_Server i-0582756920c20d25b Running t2.micro 2/2 checks passed View alarms us-east-2c

i-0582756920c20d25b (Anvita_Server)

Details Status and alarms Monitoring Security Networking Storage Tags

Instance summary

Instance ID i-0582756920c20d25b (Anvita_Server)	Public IPv4 address 13.59.70.188 open address	Private IPv4 addresses 172.31.42.233
IPv6 address -	Instance state Running	Public IPv4 DNS ec2-13-59-70-188.us-east-2.compute.amazonaws.com open address
Hostname type IP name: ip-172-31-42-233.us-east-2.compute.internal	Private IP DNS name (IPv4 only) ip-172-31-42-233.us-east-2.compute.internal	Elastic IP addresses -
Answer private resource DNS name IPv4 (A)	Instance type t2.micro	AWS Compute Optimizer finding Opt-in to AWS Compute Optimizer for recommendation s.
Auto-assigned IP address 13.59.70.188 [Public IP]	VPC ID vpc-06d36fe6719572aca	I Learn more

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Keyboard shortcut
To tab out of the terminal window and select the next button element, press the left and right Shift keys together.

Close permanently

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

System information as of Sat Oct 5 22:52:14 UTC 2024

```
System load: 0.16 Processes: 107
Usage of /: 22.9% of 6.71GB Users logged in: 0
Memory usage: 20% IPv4 address for enx0: 172.31.42.233
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-172-31-42-233:~\$

i-0582756920c20d25b (Anvita_Server)

PublicIPs: 13.59.70.188 PrivateIPs: 172.31.42.233

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AWS Services Search [Option+S] Close permanently

① Keyboard shortcut To tab out of the terminal window and select the next button element, press the left and right Shift keys together.

```
Get:13 http://us-east-2.ec2.archive.ubuntu.com/ubuntu noble/multiverse amd64 c-n-f Metadata [8328 B]
Get:14 http://us-east-2.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 Packages [538 kB]
Get:15 http://us-east-2.ec2.archive.ubuntu.com/ubuntu noble-updates/main Translation-en [132 kB]
Get:16 http://us-east-2.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 c-n-f Metadata [8860 B]
Get:17 http://us-east-2.ec2.archive.ubuntu.com/ubuntu noble-updates/universe amd64 Packages [384 kB]
Get:18 http://us-east-2.ec2.archive.ubuntu.com/ubuntu noble-updates/universe Translation-en [159 kB]
Get:19 http://us-east-2.ec2.archive.ubuntu.com/ubuntu noble-updates/universe amd64 Components [45.0 kB]
Get:20 http://us-east-2.ec2.archive.ubuntu.com/ubuntu noble-updates/universe amd64 c-n-f Metadata [14.9 kB]
Get:21 http://us-east-2.ec2.archive.ubuntu.com/ubuntu noble-updates/multiverse amd64 Packages [14.4 kB]
Get:22 http://us-east-2.ec2.archive.ubuntu.com/ubuntu noble-updates/multiverse Translation-en [3608 B]
Get:23 http://us-east-2.ec2.archive.ubuntu.com/ubuntu noble-updates/multiverse amd64 Components [212 B]
Get:24 http://us-east-2.ec2.archive.ubuntu.com/ubuntu noble-updates/multiverse amd64 c-n-f Metadata [532 B]
Get:25 http://us-east-2.ec2.archive.ubuntu.com/ubuntu noble-backports/main amd64 Components [208 B]
Get:26 http://us-east-2.ec2.archive.ubuntu.com/ubuntu noble-backports/main amd64 c-n-f Metadata [112 B]
Get:27 http://us-east-2.ec2.archive.ubuntu.com/ubuntu noble-backports/universe amd64 Packages [10.6 kB]
Get:28 http://us-east-2.ec2.archive.ubuntu.com/ubuntu noble-backports/universe Translation-en [10.8 kB]
Get:29 http://us-east-2.ec2.archive.ubuntu.com/ubuntu noble-backports/universe amd64 Components [17.6 kB]
Get:30 http://us-east-2.ec2.archive.ubuntu.com/ubuntu noble-backports/universe amd64 c-n-f Metadata [1104 B]
Get:31 http://us-east-2.ec2.archive.ubuntu.com/ubuntu noble-backports/restricted amd64 Components [216 B]
Get:32 http://us-east-2.ec2.archive.ubuntu.com/ubuntu noble-backports/restricted amd64 c-n-f Metadata [116 B]
Get:33 http://us-east-2.ec2.archive.ubuntu.com/ubuntu noble-backports/multiverse amd64 Components [212 B]
Get:34 http://us-east-2.ec2.archive.ubuntu.com/ubuntu noble-backports/multiverse amd64 c-n-f Metadata [116 B]
Get:35 http://security.ubuntu.com/ubuntu noble-security/main Translation-en [83.9 kB]
Get:36 http://security.ubuntu.com/ubuntu noble-security/main amd64 c-n-f Metadata [4704 B]
Get:37 http://security.ubuntu.com/ubuntu noble-security/universe amd64 Packages [277 kB]
Get:38 http://security.ubuntu.com/ubuntu noble-security/universe Translation-en [117 kB]
Get:39 http://security.ubuntu.com/ubuntu noble-security/amd64 Components [8632 B]
Get:40 http://security.ubuntu.com/ubuntu noble-security/universe amd64 c-n-f Metadata [10.4 kB]
Get:41 http://security.ubuntu.com/ubuntu noble-security/multiverse amd64 Packages [10.9 kB]
Get:42 http://security.ubuntu.com/ubuntu noble-security/multiverse Translation-en [2808 B]
Get:43 http://security.ubuntu.com/ubuntu noble-security/multiverse amd64 Components [208 B]
Get:44 http://security.ubuntu.com/ubuntu noble-security/multiverse amd64 c-n-f Metadata [344 B]
Fetched 28.2 MB in 4s (6922 kB/s)
Reading package lists... Done
ubuntu@ip-172-31-42-233:~$
```

i-0582756920c20d25b (Anvita_Server) X

PublicIPs: 13.59.70.188 PrivateIPs: 172.31.42.233

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AWS Services Search [Option+S] Close permanently

① Keyboard shortcut To tab out of the terminal window and select the next button element, press the left and right Shift keys together.

```
Enabling module alias.
Enabling module dir.
Enabling module autoindex.
Enabling module env.
Enabling module mime.
Enabling module negotiation.
Enabling module setenvif.
Enabling module filter.
Enabling module deflate.
Enabling module status.
Enabling module reqtimeout.
Enabling conf charset.
Enabling conf localized-error-pages.
Enabling conf other-vhosts-access-log.
Enabling conf security.
Enabling conf serve-cgi-bin.
Enabling site 000-default.
Created symlink /etc/systemd/system/multi-user.target.wants/apache2.service → /usr/lib/systemd/system/apache2.service.
Created symlink /etc/systemd/system/multi-user.target.wants/apache-htcacheclean.service → /usr/lib/systemd/system/apache-htcacheclean.service.
Processing triggers for ufw (0.36.2-6) ...
Processing triggers for man-db (2.12.0-4build2) ...
Processing triggers for libc-bin (2.39-0ubuntu8.3) ...
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-172-31-42-233:~$
```

i-0582756920c20d25b (Anvita_Server) X

PublicIPs: 13.59.70.188 PrivateIPs: 172.31.42.233

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aws Services Search [Option+S] Close permanently

① Keyboard shortcut To tab out of the terminal window and select the next button element, press the left and right Shift keys together.

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-172-31-42-233:~$ sudo apt install libapache2-mod-wsgi-py3
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following NEW packages will be installed:
libapache2-mod-wsgi-py3
0 upgraded, 1 newly installed, 0 to remove and 6 not upgraded.
Need to get 103 kB of archives.
After this operation, 300 kB of additional disk space will be used.
Get:1 http://us-east-2.ec2.archive.ubuntu.com/ubuntu noble/main amd64 libapache2-mod-wsgi-py3 amd64 5.0.0-1build2 [103 kB]
Fetched 103 kB in 0s (5054 kB/s)
Selecting previously unselected package libapache2-mod-wsgi-py3.
(Reading database ... 68559 files and directories currently installed.)
Preparing to unpack .../libapache2-mod-wsgi-py3_5.0.0-1build2_amd64.deb ...
Unpacking libapache2-mod-wsgi-py3 (5.0.0-1build2) ...
Setting up libapache2-mod-wsgi-py3 (5.0.0-1build2) ...
apache2_invoke: Enable module wsgi
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-172-31-42-233:~$
```

i-0582756920c20d25b (Anvita_Server)

PublicIPs: 13.59.70.188 PrivateIPs: 172.31.42.233

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app.py

us-east-2.console.aws.amazon.com

GNU nano 7.2 app.py

```
from flask import Flask, render_template, request, redirect, url_for, send_from_directory
import sqlite3
import os
from werkzeug.utils import secure_filename

app = Flask(__name__)

# Configuration for file uploads
UPLOAD_FOLDER = os.path.join(app.root_path, 'uploads')
ALLOWED_EXTENSIONS = {'txt'}

app.config['UPLOAD_FOLDER'] = UPLOAD_FOLDER

# Ensure the upload folder exists
if not os.path.exists(UPLOAD_FOLDER):
    os.makedirs(UPLOAD_FOLDER)

# Initialize the database and create the users table if it doesn't exist
def init_db():
    conn = sqlite3.connect('/var/www/flaskapp/users.db')
    c = conn.cursor()
    # Create table with additional fields for filename and word count
    c.execute('''CREATE TABLE IF NOT EXISTS users (
        id INTEGER PRIMARY KEY AUTOINCREMENT,
        username TEXT NOT NULL,
        password TEXT NOT NULL,
        firstname TEXT NOT NULL,
        lastname TEXT NOT NULL,
        email TEXT NOT NULL,
        filename TEXT,
        word_count INTEGER
    )''')
    conn.commit()

^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      ^N Replace      ^P Paste      ^J Justify      ^Y Go To Line      M-E Redo      M-C Copy      ^Q Where Was
```

i-0582756920c20d25b (Anvita_Server)

PublicIPs: 13.59.70.188 PrivateIPs: 172.31.42.233

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Login.html

The screenshot shows a terminal window titled "login.html" with the following code:

```
GNU nano 7.2
<!DOCTYPE html>
<html>
<head>
    <title>Login Page</title>
</head>
<body>
<h1>Login Page</h1>
<form method="POST" action="/login">
    Username: <input type="text" name="username" required><br>
    Password: <input type="password" name="password" required><br>
    <input type="submit" value="Login">
</form>
</body>
</html>
```

The terminal interface includes standard nano editor key bindings at the bottom. A red warning bar at the top right states "[File 'login.html' is unwritable]". The bottom status bar shows the file path "i-0582756920c20d25b (Anvita_Server)" and IP addresses "PublicIPs: 13.59.70.188 PrivateIPs: 172.31.42.233".

Profile.html

The screenshot shows a terminal window titled "profile.html" with the following code:

```
GNU nano 7.2
<!DOCTYPE html>
<html>
<head>
    <title>User Profile</title>
</head>
<body>
<h1>User Profile</h1>
<p>Username: {{ user[1] }}</p>
<p>First Name: {{ user[3] }}</p>
<p>Last Name: {{ user[4] }}</p>
<p>Email: {{ user[5] }}</p>

{* if user[7] *}
<p>Word Count in Uploaded File: {{ user[7] }}</p>
{* endif *}

{* if user[6] *}
<a href="{{ url_for('uploaded_file', filename=user[6]) }}">Download Uploaded File</a>
{* endif *}

</body>
</html>
```

The terminal interface includes standard nano editor key bindings at the bottom. A red warning bar at the top right states "[File 'profile.html' is unwritable]". The bottom status bar shows the file path "i-0582756920c20d25b (Anvita_Server)" and IP addresses "PublicIPs: 13.59.70.188 PrivateIPs: 172.31.42.233".

Register.html

The screenshot shows a terminal window titled "register.html" containing the following HTML code:

```
GNU nano 7.2
[DOCTYPE html>
<html>
<head>
<title>Registration Page</title>
</head>
<body>
<h1>Registration Page</h1>
<form method="POST" action="/register" enctype="multipart/form-data">
    Username: <input type="text" name="username" required><br>
    Password: <input type="password" name="password" required><br>
    First Name: <input type="text" name="firstname" required><br>
    Last Name: <input type="text" name="lastname" required><br>
    Email: <input type="email" name="email" required><br>
    Upload File: <input type="file" name="file"><br>
    <input type="submit" value="Register">
</form>
</body>
</html>
```

The terminal interface includes a toolbar at the top with various AWS services like EC2, S3, and Lambda. Below the toolbar is a navigation bar with tabs for "Search" and "[Option+S]". A status bar at the bottom shows keyboard shortcuts and the file path "i-0582756920c20d25b (Anvita_Server)".

The screenshot shows a terminal window displaying system logs and security information. The logs include:

- Last login details: Sat Oct 6 22:42:47 on ttys007
- Warning about identity file: "Identity file /my-ec2-keypair.pem not accessible: No such file or directory."
- SSH connection attempt to host 'ec2-13-59-70-188.us-east-2.compute.amazonaws.com' failed due to ED25519 key fingerprint mismatch.
- Key fingerprint: SHA256:kr35M6WoEulgJm2fnG5mB76YuNupwmrk4myfgVc.
- Warning about host key fingerprint.
- Continuing connection despite warning.
- Warning about permission denied for publickey.
- File operations: chmod, ssh, cp, mv, rm.
- System information: Welcome to Ubuntu 24.04.1 LTS (GNU/Linux 6.8.0-186-aws x86_64).
- Documentation links: https://help.ubuntu.com, https://landscape.canonical.com, https://ubuntu.com/pro.
- System load: 0.08.
- Memory usage: 32% of 6.71GB.
- Swap usage: 0%.
- Ubuntu Pro features: * Ubuntu Pro delivers the most comprehensive open source security and compliance features.
- Security maintenance: Expanded Security Maintenance for Applications is not enabled.
- Software updates: 1 update can be applied immediately.
- ESM Apps: Enable ESM Apps to receive additional future security updates. See https://ubuntu.com/esm or run: sudo pro status.
- Last login: Sun Oct 6 16:38:46 2024 from 3.16.146.4
- SSH channel errors: channel 3: open failed: connect failed: Connection refused, channel 4: open failed: connect failed: Connection refused, channel 3: open failed: connect failed: Connection refused.

ubuntu@ip-172-31-42-233:/var/www/flaskapp\$ nano templates/login.html
ubuntu@ip-172-31-42-233:/var/www/flaskapp\$ python3 app.py
* Serving Flask app 'app'
* Debug mode: on
WARNING: This is a development server. Do not use it in a production deployment. Use a production WSGI server instead.
* Running on http://127.0.0.1:5000
Press CTRL+C to quit
* Restarting with stat
* Debugger is active!
* Debugger PIN: 141-530-976
127.0.0.1 - - [06/Oct/2024 16:52:06] "GET / HTTP/1.1" 404 -
127.0.0.1 - - [06/Oct/2024 16:52:07] "GET / HTTP/1.1" 404 -
^Z
[1]+ Stopped python3 app.py
ubuntu@ip-172-31-42-233:/var/www/flaskapp\$ python3 app.py
* Serving Flask app 'app'
* Debug mode: on
Address already in use
Port 5000 is in use by another program. Either identify and stop that program, or start the server with a different port.
ubuntu@ip-172-31-42-233:/var/www/flaskapp\$ python3 app.py
* Serving Flask app 'app'
* Debug mode: on
Address already in use
Port 5000 is in use by another program. Either identify and stop that program, or start the server with a different port.
ubuntu@ip-172-31-42-233:/var/www/flaskapp\$ sudo lsof -i :5000
COMMAND PID USER FD TYPE DEVICE SIZE/OFF NODE NAME
python3 8937 ubuntu 3u IPv4 53225 0t0 TCP localhost:5000 (LISTEN)
python3 8938 ubuntu 3u IPv4 53225 0t0 TCP localhost:5000 (LISTEN)
python3 8938 ubuntu 4u IPv4 53225 0t0 TCP localhost:5000 (LISTEN)
sshd 9171 ubuntu 8u IPv4 53687 0t0 TCP localhost:33220->localhost:5000 (ESTABLISHED)
sshd 9171 ubuntu 12u IPv4 53702 0t0 TCP localhost:46084->localhost:5000 (ESTABLISHED)
sshd 9171 ubuntu 13u IPv4 53703 0t0 TCP localhost:46086->localhost:5000 (ESTABLISHED)
ubuntu@ip-172-31-42-233:/var/www/flaskapp\$ kill -9 8937
ubuntu@ip-172-31-42-233:/var/www/flaskapp\$ python3 app.py
* Serving Flask app 'app'

i-0582756920c20d25b (Anvita_Server)

PublicIPs: 13.59.70.188 PrivateIPs: 172.31.42.233

ubuntu@ip-172-31-42-233:/var/www/flaskapp\$ nano templates/login.html
ubuntu@ip-172-31-42-233:/var/www/flaskapp\$ python3 app.py
* Serving Flask app 'app'
* Debug mode: on
WARNING: This is a development server. Do not use it in a production deployment. Use a production WSGI server instead.
* Running on http://127.0.0.1:5000
Press CTRL+C to quit
* Restarting with stat
* Debugger is active!
* Debugger PIN: 141-530-976
127.0.0.1 - - [06/Oct/2024 16:56:00] "GET / HTTP/1.1" 404 -
127.0.0.1 - - [06/Oct/2024 16:56:05] "GET /login HTTP/1.1" 200 -
127.0.0.1 - - [06/Oct/2024 16:56:30] "POST /login HTTP/1.1" 200 -
127.0.0.1 - - [06/Oct/2024 16:56:42] "GET /register HTTP/1.1" 200 -
127.0.0.1 - - [06/Oct/2024 16:57:09] "POST /register HTTP/1.1" 302 -
127.0.0.1 - - [06/Oct/2024 16:57:09] "GET /profile/Anvi HTTP/1.1" 200 -
127.0.0.1 - - [06/Oct/2024 16:57:24] "GET /profile/profile HTTP/1.1" 200 -
127.0.0.1 - - [06/Oct/2024 16:57:31] "GET /profile/login HTTP/1.1" 200 -
127.0.0.1 - - [06/Oct/2024 16:57:42] "GET /login HTTP/1.1" 200 -
127.0.0.1 - - [06/Oct/2024 16:57:48] "POST /login HTTP/1.1" 302 -
127.0.0.1 - - [06/Oct/2024 16:57:48] "GET /profile/Anvi HTTP/1.1" 200 -
127.0.0.1 - - [06/Oct/2024 16:57:59] "GET /profile HTTP/1.1" 404 -
127.0.0.1 - - [06/Oct/2024 16:58:07] "GET /Login HTTP/1.1" 404 -
127.0.0.1 - - [06/Oct/2024 16:58:11] "GET /login HTTP/1.1" 200 -
127.0.0.1 - - [06/Oct/2024 16:58:21] "POST /login HTTP/1.1" 302 -
127.0.0.1 - - [06/Oct/2024 16:58:21] "GET /profile/Anvi HTTP/1.1" 200 -
127.0.0.1 - - [06/Oct/2024 16:58:32] "GET /uploads/Limerick.txt HTTP/1.1" 200 -
127.0.0.1 - - [06/Oct/2024 16:59:19] "GET /register HTTP/1.1" 200 -
127.0.0.1 - - [06/Oct/2024 17:00:09] "POST /login HTTP/1.1" 302 -
127.0.0.1 - - [06/Oct/2024 17:00:09] "GET /profile/Anvi HTTP/1.1" 200 -
^C[1]+ Killed python3 app.py
ubuntu@ip-172-31-42-233:/var/www/flaskapp\$ sudo apt-get install libapache2-mod-wsgi-py3
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
libapache2-mod-wsgi-py3 is already the newest version (5.0.0-1build2).

i-0582756920c20d25b (Anvita_Server)

PublicIPs: 13.59.70.188 PrivateIPs: 172.31.42.233

Local Host

The screenshot shows a web browser window with the address bar set to 127.0.0.1. The title of the page is "Login Page". The form contains fields for "Username" and "Password", and a "Login" button.

Username:

Password:

Login Page

Username:

Password:

The screenshot shows a web browser window with the address bar set to 127.0.0.1. The title of the page is "Registration Page". The form contains fields for "Username", "Password", "First Name", "Last Name", "Email", and an "Upload File" field. There is also a "Register" button.

Username: Anvi

Password: **••••**

First Name: Anvi

Last Name: Anvi

Email: Anvi@gmail.com

Upload File: Choose File Limerick.txt

Registration Page

Username: Anvi

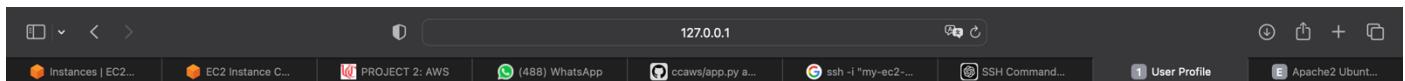
Password: **••••**

First Name: Anvi

Last Name: Anvi

Email: Anvi@gmail.com

Upload File: Choose File Limerick.txt



User Profile

Username: Anvi

First Name: Anvi

Last Name: Anvi

Email: Anvi@gmail.com

Word Count in Uploaded File: 32

[Download Uploaded File](#)



Login Page

Username: Anvi
Password:



User Profile

Username: Anvi

First Name: Anvi

Last Name: Anvi

Email: Anvi@gmail.com

Word Count in Uploaded File: 32

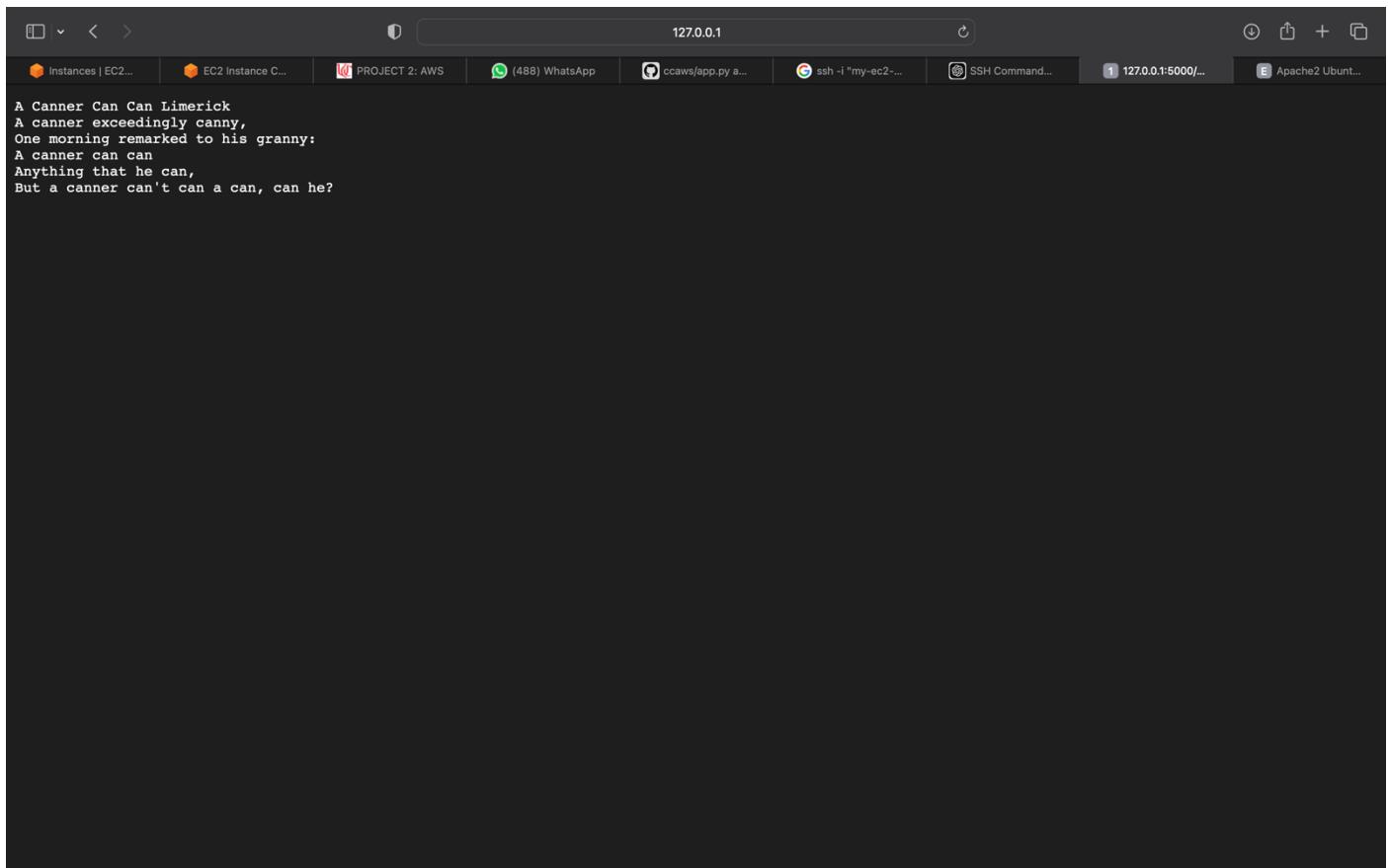
[Download Uploaded File](#)

Favourites

Apple	iCloud	Google	Yahoo	Facebook	Zomato

Frequently Visited

ChatGPT	Home - Netflix	Assignment 24FS...	WhatsApp	Mail - Panjungula...	Claude
New chat - Poe	youtube.com	GitHub	mail.google.com	FB BOX Watch Fr...	handshake - Google...



On AWS server

```
① Keyboard shortcut
To tab out of the terminal window and select the next button element, press the left and right Shift keys together. Close permanently

Building dependency tree... Done
Reading state information... Done
libapache2-mod-wsgi-py3 is already the newest version (5.0.0-1build2).
0 upgraded, 0 newly installed, 0 to remove and 1 not upgraded.
ubuntu@ip-172-31-42-233:~/var/www/flaskapp$ sudo nano /etc/apache2/sites-available/flaskapp.conf
ubuntu@ip-172-31-42-233:~/var/www/flaskapp$ sudo nano /var/www/flaskapp/flaskapp.wsgi
ubuntu@ip-172-31-42-233:~/var/www/flaskapp$ sudo a2ensite flaskapp
sudo a2dissite 000-default
sudo systemctl restart apache2
Enabling site flaskapp.
To activate the new configuration, you need to run:
    systemctl reload apache2
Site 000-default disabled.
To activate the new configuration, you need to run:
    systemctl reload apache2
Warning: The unit file, source configuration file or drop-ins of apache2.service changed on disk. Run 'systemctl daemon-reload' to reload units.
ubuntu@ip-172-31-42-233:~/var/www/flaskapp$ sudo tail -f /var/log/apache2/error.log
[Sun Oct 06 17:16:31.777154 2024] [wsgi:error] [pid 9285:tid 136736569034432] [client 167.99.155.236:40566] mod_wsgi (pid=9285): Exception occurred processing WSGI script '/var/www/flaskapp/flaskapp.wsgi'.
[Sun Oct 06 17:16:31.777246 2024] [wsgi:error] [pid 9285:tid 136736569034432] [client 167.99.155.236:40566] Traceback (most recent call last):
[Sun Oct 06 17:16:31.777338 2024] [wsgi:error] [pid 9285:tid 136736569034432] [client 167.99.155.236:40566]   File "/var/www/flaskapp/flaskapp.wsgi", line 6, in <module>
[Sun Oct 06 17:16:31.777343 2024] [wsgi:error] [pid 9285:tid 136736569034432] [client 167.99.155.236:40566]     from app import app as application
[Sun Oct 06 17:16:31.777349 2024] [wsgi:error] [pid 9285:tid 136736569034432] [client 167.99.155.236:40566]   File "/var/www/flaskapp/app.py", line 36, in <module>
[Sun Oct 06 17:16:31.777352 2024] [wsgi:error] [pid 9285:tid 136736569034432] [client 167.99.155.236:40566]     init_db()
[Sun Oct 06 17:16:31.777357 2024] [wsgi:error] [pid 9285:tid 136736569034432] [client 167.99.155.236:40566]   File "/var/www/flaskapp/app.py", line 20, in init_db
[Sun Oct 06 17:16:31.777360 2024] [wsgi:error] [pid 9285:tid 136736569034432] [client 167.99.155.236:40566]     conn = sqlite3.connect('users.db')
[Sun Oct 06 17:16:31.777363 2024] [wsgi:error] [pid 9285:tid 136736569034432] [client 167.99.155.236:40566]   File "/var/www/flaskapp/app.py", line 20, in init_db
[Sun Oct 06 17:16:31.777383 2024] [wsgi:error] [pid 9285:tid 136736569034432] [client 167.99.155.236:40566]     sqlite3.OperationalError: unable to open database file
```

```

^C
ubuntu@ip-172-31-42-233:/var/www/flaskapp$ conn = sqlite3.connect('/var/www/flaskapp/users.db') # Use the absolute path
-bash: syntax error near unexpected token `('
ubuntu@ip-172-31-42-233:/var/www/flaskapp$ sudo nano /var/www/flaskapp/app.py
ubuntu@ip-172-31-42-233:/var/www/flaskapp$ ls -l /var/www/flaskapp/users.db
-rw-r--r-- 1 ubuntu ubuntu 12288 Oct 6 16:57 /var/www/flaskapp/users.db
ubuntu@ip-172-31-42-233:/var/www/flaskapp$ sudo systemctl restart apache2
Warning: The unit file, source configuration file or drop-ins of apache2.service changed on disk. Run 'systemctl daemon-reload' to reload units.
ubuntu@ip-172-31-42-233:/var/www/flaskapp$ sudo systemctl status apache2
Warning: The unit file, source configuration file or drop-ins of apache2.service changed on disk. Run 'systemctl daemon-reload' to reload units.
● apache2.service - The Apache HTTP Server
   Loaded: loaded (/usr/lib/systemd/system/apache2.service; enabled; preset: enabled)
   Active: active (running) since Sun 2024-10-06 17:22:28 UTC; 46s ago
     Docs: https://httpd.apache.org/docs/2.4/
  Process: 9379 ExecStart=/usr/sbin/apachectl start (code=exited, status=0/SUCCESS)
 Main PID: 9382 (apache2)
    Tasks: 63 (limit: 1130)
   Memory: 57.3M (peak: 57.5M)
      CPU: 539ms
     CGroup: /system.slice/apache2.service
           ├─9382 /usr/sbin/apache2 -k start
           ├─9383 /usr/sbin/apache2 -k start
           ├─9385 /usr/sbin/apache2 -k start
           ├─9386 /usr/sbin/apache2 -k start

Oct 06 17:22:28 ip-172-31-42-233 systemd[1]: Starting apache2.service - The Apache HTTP Server...
Oct 06 17:22:28 ip-172-31-42-233 systemd[1]: Started apache2.service - The Apache HTTP Server.
ubuntu@ip-172-31-42-233:/var/www/flaskapp$ sudo systemctl daemon-reload
ubuntu@ip-172-31-42-233:/var/www/flaskapp$ sudo systemctl status apache2
● apache2.service - The Apache HTTP Server
   Loaded: loaded (/usr/lib/systemd/system/apache2.service; enabled; preset: enabled)
   Active: active (running) since Sun 2024-10-06 17:22:28 UTC; 1min 17s ago
     Docs: https://httpd.apache.org/docs/2.4/
  Process: 9379 ExecStart=/usr/sbin/apachectl start (code=exited, status=0/SUCCESS)
 Main PID: 9382 (apache2)
    Tasks: 63 (limit: 1130)

```

The screenshot shows a terminal window titled "us-east-2.console.aws.amazon.com" with the URL "https://us-east-2.console.aws.amazon.com/lambda/functions/Anvita_ubuntu?tab=logs". The terminal content displays Apache logs for the flask application. The logs show multiple child processes (9385, 9386, 9387, 9388) failing to exit, which is being handled by the parent process (9382). The logs also mention the configuration of mod_wsgi and the Apache version.

```

[Sun Oct 06 17:28:00.768823 2024] [core:notice] [pid 9574:tid 133767421511552] AH00094: Command line: '/usr/sbin/apache2'
^C
ubuntu@ip-172-31-42-233:/var/www/flaskapp$ sudo chown -R www-data:www-data /var/www/flaskapp
ubuntu@ip-172-31-42-233:/var/www/flaskapp$ sudo chmod -R 755 /var/www/flaskapp
ubuntu@ip-172-31-42-233:/var/www/flaskapp$ sudo apachectl configtest
Syntax OK
ubuntu@ip-172-31-42-233:/var/www/flaskapp$ sudo systemctl restart apache2
ubuntu@ip-172-31-42-233:/var/www/flaskapp$ sudo tail -f /var/log/apache2/error.log
[Sun Oct 06 17:27:55.657668 2024] [core:warn] [pid 9382:tid 130257986336640] AH00045: child process 9386 still did not exit, sending a SIGTERM
[Sun Oct 06 17:27:57.659823 2024] [core:warn] [pid 9382:tid 130257986336640] AH00045: child process 9385 still did not exit, sending a SIGTERM
[Sun Oct 06 17:27:57.659862 2024] [core:warn] [pid 9382:tid 130257986336640] AH00045: child process 9386 still did not exit, sending a SIGTERM
[Sun Oct 06 17:27:59.662164 2024] [core:error] [pid 9382:tid 130257986336640] AH00046: child process 9385 still did not exit, sending a SIGKILL
[Sun Oct 06 17:27:59.662297 2024] [core:error] [pid 9382:tid 130257986336640] AH00046: child process 9386 still did not exit, sending a SIGKILL
[Sun Oct 06 17:28:00.768753 2024] [mpm_event:notice] [pid 9574:tid 133767421511552] AH00489: Apache/2.4.58 (Ubuntu) mod_wsgi/5.0.0 Python/3.12 configured
-- resuming normal operations
[Sun Oct 06 17:28:00.768823 2024] [core:notice] [pid 9574:tid 133767421511552] AH00094: Command line: '/usr/sbin/apache2'
[Sun Oct 06 17:29:05.265202 2024] [mpm_event:notice] [pid 9574:tid 133767421511552] AH00492: caught SIGWINCH, shutting down gracefully
[Sun Oct 06 17:29:05.385970 2024] [mpm_event:notice] [pid 9673:tid 130033600169856] AH00489: Apache/2.4.58 (Ubuntu) mod_wsgi/5.0.0 Python/3.12 configured
-- resuming normal operations
[Sun Oct 06 17:29:05.386038 2024] [core:notice] [pid 9673:tid 130033600169856] AH00094: Command line: '/usr/sbin/apache2'
^C
ubuntu@ip-172-31-42-233:/var/www/flaskapp$ ls
_pycache__ app.py flaskapp.conf flaskapp.wsgi templates uploads users.db
ubuntu@ip-172-31-42-233:/var/www/flaskapp$ nano flaskapp.wsgi
ubuntu@ip-172-31-42-233:/var/www/flaskapp$ ls -l /var/www/flaskapp/flaskapp.wsgi
-rwxr-xr-x 1 www-data www-data 260 Oct 6 17:13 /var/www/flaskapp/flaskapp.wsgi
ubuntu@ip-172-31-42-233:/var/www/flaskapp$ sudo chown ubuntu:ubuntu /var/www/flaskapp/flaskapp.wsgi
ubuntu@ip-172-31-42-233:/var/www/flaskapp$ sudo usermod -a -G www-data ubuntu
ubuntu@ip-172-31-42-233:/var/www/flaskapp$ nano /var/www/flaskapp/flaskapp.wsgi
ubuntu@ip-172-31-42-233:/var/www/flaskapp$ sudo systemctl restart apache2
ubuntu@ip-172-31-42-233:/var/www/flaskapp$ ls
_pycache__ app.py flaskapp.conf flaskapp.wsgi templates uploads users.db
ubuntu@ip-172-31-42-233:/var/www/flaskapp$ nano flaskapp.wsgi
ubuntu@ip-172-31-42-233:/var/www/flaskapp$ ls
_pycache__ app.py flaskapp.conf flaskapp.wsgi templates uploads users.db

```

i-0582756920c20d25b (Anvita_Server)

PublicIPs: 13.59.70.188 PrivateIPs: 172.31.42.233

Registration Page

Username:

Password:

First Name:

Last Name:

Email:

Upload File: no file selected

13.59.70.188/register

Favourites

Apple iCloud Google yahoo! Facebook Zomato
NDTV Hotstar Apple Disney Yahoo Instagram

Frequently Visited

ChatGPT Home - Netflix Assignmen... WhatsApp Mail - Panjungula... Claude
New chat - Poe youtube.co... GitHub mail.google.com FBOX | Watch Fr... handshake - Google...

The image shows a web browser window with a registration form on the left and a sidebar on the right. The sidebar has two main sections: 'Favourites' and 'Frequently Visited'. The 'Favourites' section contains icons for Apple, iCloud, Google, yahoo!, Facebook, and Zomato. The 'Frequently Visited' section contains icons for ChatGPT, Home - Netflix, Assignmen..., WhatsApp, Mail - Panjungula..., Claude, New chat - Poe, youtube.co..., GitHub, mail.google.com, FBOX | Watch Fr..., and handshake - Google... . The browser's address bar shows the URL 13.59.70.188/register.



Registration Page

Username:
Password:
First Name:
Last Name:
Email:
Upload File: Choose File no file selected



Login Page

Username:
Password: