

ICT-171

ASSIGNMENT-2 CLOUD PROJECT

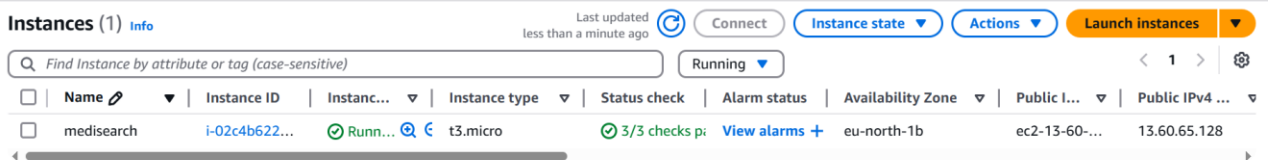
IP: 13.60.65.128

DNS: <http://www.medisearch.online>

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STUDENT ID: 35480908

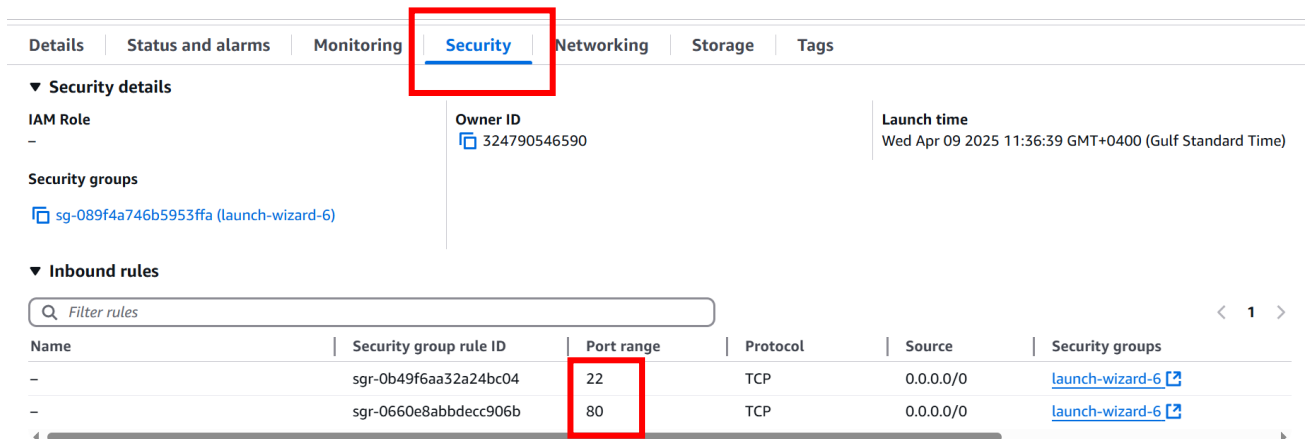
➤ SETTING UP A WEB-SERVER:

1. Launch an instance



The screenshot shows the AWS Management Console 'Instances' page. At the top, there are buttons for 'Connect', 'Instance state', 'Actions', and 'Launch instances'. Below these is a search bar and a filter dropdown set to 'Running'. A table lists instances with columns: Name, Instance ID, Instance type, Status check, Alarm status, Availability Zone, Public IP, and Public IPv4. One instance, 'medisearch', is listed with ID 'i-02c4b622...', type 't3.micro', and status 'Running'.

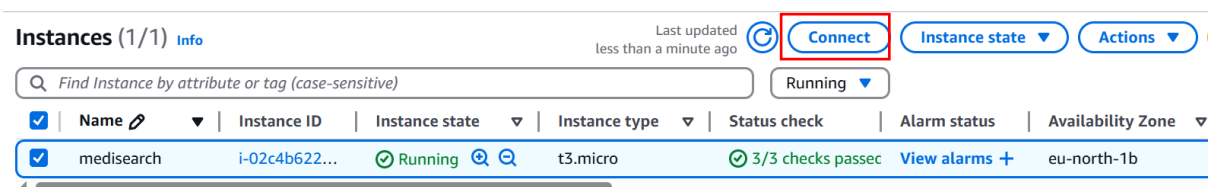
2. Enable port 22 and 80 in edit inbound rule in security option



The screenshot shows the 'Security' tab of an instance's details page. It displays 'Security details' including the IAM Role, Owner ID, and Launch time. Below, the 'Inbound rules' section shows a table of rules. Two rules are listed for ports 22 and 80, both using the 'launch-wizard-6' security group.

Name	Security group rule ID	Port range	Protocol	Source	Security groups
-	sgr-0b49f6aa32a24bc04	22	TCP	0.0.0.0/0	launch-wizard-6
-	sgr-0660e8abbdecc906b	80	TCP	0.0.0.0/0	launch-wizard-6

3. Connect instance to ubuntu terminal



The screenshot shows the AWS Management Console 'Instances' page. The 'Connect' button is highlighted with a red box. Below the buttons is a search bar and a filter dropdown set to 'Running'. A table lists instances with columns: Name, Instance ID, Instance state, Instance type, Status check, Alarm status, and Availability Zone. One instance, 'medisearch', is listed with ID 'i-02c4b622...', type 't3.micro', and status 'Running'.

Connect to instance [Info](#)

Connect to your instance i-02c4b62287fe930da (medisearch) using any of these options

EC2 Instance ConnectSession ManagerSSH clientEC2 serial console

Instance ID
i-02c4b62287fe930da (medisearch)

Connection Type

☒ Connect using EC2 Instance Connect
Connect using the EC2 Instance Connect browser-based client, with a public IPv4 or IPv6 address.

☐ Connect using EC2 Instance Connect Endpoint
Connect using the EC2 Instance Connect browser-based client, with an endpoint.

☒ Public IPv4 address
13.60.65.128

☐ IPv6 address
—

```
Welcome to Ubuntu 24.04.2 LTS (GNU/Linux 6.8.0-1026-aws x86_64)

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

System information as of Wed Apr  9 12:37:14 UTC 2025

System load:  0.0           Temperature:   -273.1 C
Usage of /:   45.6% of 6.71GB Processes:      118
Memory usage: 72%          Users logged in: 0
Swap usage:   0%           IPv4 address for ens5: 172.31.32.222

Expanded Security Maintenance for Applications is not enabled.

0 updates can be applied immediately.

6 additional security updates can be applied with ESM Apps.
Learn more about enabling ESM Apps service at https://ubuntu.com/esm

Last login: Wed Apr  9 07:56:14 2025 from 13.48.4.202
ubuntu@ip-172-31-32-222:~$
```

Our instance is connected with terminal

- The second way of connecting

1) copy chmod 400 and ssh and past it on ubuntu terminal

EC2 Instance ConnectSession Manager**SSH client**EC2 serial console

Instance ID
i-02c4b62287fe930da (medisearch)

1. Open an SSH client.
2. Locate your private key file. The key used to launch this instance is medisearch5.pem
3. Run this command, if necessary, to ensure your key is not publicly viewable.
chmod 400 "medisearch5.pem"
4. Connect to your instance using its Public DNS:
ec2-13-60-65-128.eu-north-1.compute.amazonaws.com

Example:
ssh -i "medisearch5.pem" ubuntu@ec2-13-60-65-128.eu-north-1.compute.amazonaws.com

2) and now open terminal and past it.

```
jainil@jainil-virtualbox:~$ cd Downloads
jainil@jainil-virtualbox:~/Downloads$ chmod 400 "ICT.pem"
jainil@jainil-virtualbox:~/Downloads$ ssh -i "medisearch5.pem" ubuntu@ec2-13-60-65-128.eu-north-1.compute.amazonaws.com
hostkeys_find_by_key_hostfile: hostkeys_foreach failed for /home/jainil/.ssh/known_hosts: Permission denied
The authenticity of host 'ec2-13-60-65-128.eu-north-1.compute.amazonaws.com (13.60.65.128)' can't be established.
ED25519 key fingerprint is SHA256:mKf0xbN0uWRbPE3vq5GUJ7/YLD9Yw4TIQt775VeTHkY.
This key is not known by any other names.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
```

3) and now our instance is conncted with ubuntu

```
Memory usage: 73%          Users logged in: 0
Swap usage: 0%             IPv4 address for ens5: 172.31.32.1

Expanded Security Maintenance for Applications is not enabled.

0 updates can be applied immediately.

6 additional security updates can be applied with ESM Apps.
Learn more about enabling ESM Apps service at https://ubuntu.com/esm

Last login: Wed Apr  9 12:37:15 2025 from 13.48.4.203
ubuntu@ip-172-31-32-222:~$
```

➤ And now, we download Apache in our ubuntu:

Sudo apt install apache2

Sudo apt -get update

Sudo su

Sudo systemctl reload apache2

Sudo systemctl restart apache2

➤ Setting up WordPress:

- We need to update our repository and upgrade our packages before we begin.

```
sudo apt update && sudo apt upgrade -y
```

- Install Apache server and the necessary dependency.

```
sudo apt install apache2 ghostscript libapache2-mod-  
php mysql-server php php-bcmath php-curl php-imagick  
php-intl php-json php-mbstring php-mysql php-xml php-  
zip -y
```

- Make the directory where we'll host the WordPress files

```
sudo mkdir -p /var/www/html
```

- Change the directory's ownership to the user www-data

```
sudo chown www-data: /var/www/html
```


- And then curl the zip files from the official wordpress page and unzip them into the directory we created.

```
curl https://wordpress.org/latest.tar.gz | sudo -u  
www-data tar zx -C /var/www/html
```

6 additional security updates can be applied with ESM Apps.
Learn more about enabling ESM Apps service at <https://ubuntu.com/esm>

```
Last login: Wed Apr  9 13:58:15 2025 from 13.48.4.202  
ubuntu@ip-172-31-32-222:~$ cd /var/www/html  
ubuntu@ip-172-31-32-222:/var/www/html$ ls  
index.html  wordpress  
ubuntu@ip-172-31-32-222:/var/www/html$ █
```

Our wordpress is installed successfully



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. Don't worry, you can always change these settings later.

Site Title

Username

Username can have only alphanumeric characters, spaces, underscores, hyphens, periods, and the @ symbol.

Password [Hide](#)

Strong


Important: You will need this password to log in. Please store it in a secure location.

Your Email

Double-check your email address before continuing.

[Install WordPress](#)

Now we can set up our account



Username or Email Address

Password

☐ Remember Me [Log In](#)

Lost your password?

[Go to the page about you.](#)

[Privacy Policy](#)

Now we can login into our Wordpress

➤ **Linking with DNS**

1) We create hosting network using route 53

Create hosted zone [Info](#)

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

2) Now we create an “A” record and “CNAME” record

Records (4) [Info](#)

[Delete record](#)[Import zone file](#)[Create record](#)

Automatic mode is the current search behavior optimized for best filter results. [To change modes go to settings.](#)

[Type](#)[Routing p...](#)[Alias](#)

<

1

>



<input type="checkbox"/>	Record name	Type	Routin...	Differ...	Alias	Value/Route traffic to	T
<input type="checkbox"/>	medisearch.online	A	Simple	-	No	13.60.65.128	60
<input type="checkbox"/>	medisearch.online	NS	Simple	-	No	ns-153.awsdns-19.com. ns-1193.awsdns-21.org. ns-572.awsdns-07.net. ns-1873.awsdns-42.co.uk.	60
<input type="checkbox"/>	medisearch.online	SOA	Simple	-	No	ns-153.awsdns-19.com. awsd...	60
<input type="checkbox"/>	www.medisearch....	CNAME	Simple	-	No	medisearch.online	60

3) Now we create an nameserver

Records (4) [Info](#)

[Delete record](#)[Import zone file](#)[Create record](#)

Automatic mode is the current search behavior optimized for best filter results. [To change modes go to settings.](#)

[Type](#)[Routing p...](#)[Alias](#)

<

1

>



<input type="checkbox"/>	Record name	Type	Routin...	Differ...	Alias	Value/Route traffic to	T
<input type="checkbox"/>	medisearch.online	A	Simple	-	No	13.60.65.128	60
<input type="checkbox"/>	medisearch.online	NS	Simple	-	No	ns-153.awsdns-19.com. ns-1193.awsdns-21.org. ns-572.awsdns-07.net. ns-1873.awsdns-42.co.uk.	60
<input type="checkbox"/>	medisearch.online	SOA	Simple	-	No	ns-153.awsdns-19.com. awsd...	60
<input type="checkbox"/>	www.medisearch....	CNAME	Simple	-	No	medisearch.online	60

4) Now we copy these nameservers and past into in godaddy.

[DNS Records](#)[Forwarding](#)[Nameservers](#)[Premium DNS](#)[Hostnames](#)[DS Records](#)

Nameservers determine where your DNS is hosted and where you add, edit or delete your DNS records.

Nameservers ?

ns-153.awsdns-19.com

ns-1193.awsdns-21.org

ns-572.awsdns-07.net

ns-1873.awsdns-42.co.uk

➤ SSL/TLS Documentation:

1). First we download certbot

```
sudo snap install --classic certbot
```

2).

```
sudo ln -s /snap/bin/certbot /usr/bin/certbot
```


3).

```
sudo certbot --apache
```

4).

```
sudo certbot certonly --apache
```

```
sudo: 200-snap: command not found
ubuntu@ip-172-31-32-222:~$ sudo snap install --classic certbot
certbot 4.0.0 from Certbot Project (certbot-eff/) installed
ubuntu@ip-172-31-32-222:~$ sudo ln -s /snap/bin/certbot /usr/bin/certbot
ubuntu@ip-172-31-32-222:~$ sudo certbot --apache
Saving debug log to /var/log/letsencrypt/letsencrypt.log
Enter email address or hit Enter to skip
(Enter 'c' to cancel): jainilpatel9494@gmail.com
-----
Please read the Terms of Service at:
https://letsencrypt.org/documents/LE-SA-v1.5-February-24-2025.pdf
You must agree in order to register with the ACME server. Do you agree?
-----
(Y)es/(N)o: yes
-----
Would you be willing, once your first certificate is successfully issued, to
share your email address with the Electronic Frontier Foundation, a founding
partner of the Let's Encrypt project and the non-profit organization that
develops Certbot? We'd like to send you email about our work encrypting the web,
EFF news, campaigns, and ways to support digital freedom.
-----
(Y)es/(N)o: y
Account registered.
Please enter the domain name(s) you would like on your certificate (comma and/or
space separated) (Enter 'c' to cancel): medisearch.online
Requesting a certificate for medisearch.online
```

End of documentation