

# Cloud Computing Lab Week-2 : Web Server, Firewall Access, Monitor Cloud Usage

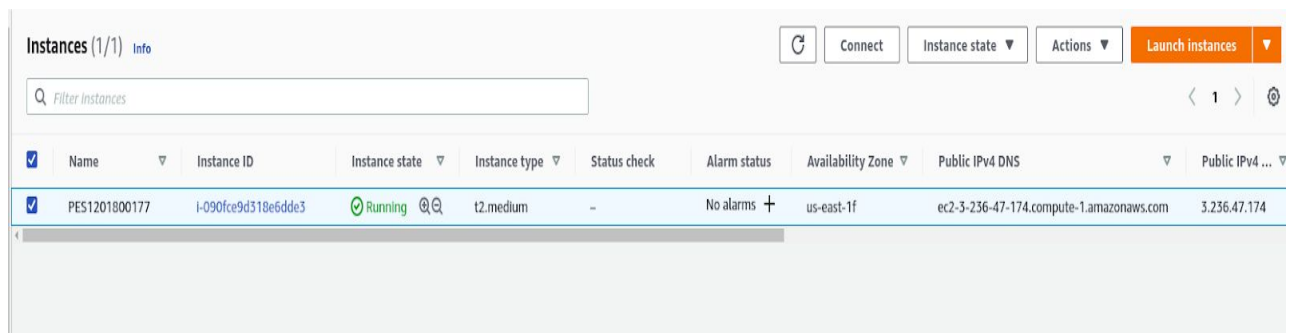
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PES1201800177

Section : G

## Task -A

### Running instance



The screenshot shows the AWS Management Console 'Instances' page. It displays one instance with the following details:

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS	Public IPv4 ...
PES1201800177	i-090fce9d318e6dde3	Running	t2.medium	-	No alarms	us-east-1f	ec2-3-236-47-174.compute-1.amazonaws.com	3.236.47.174

### Apache server working

```
See system logs and systemctl status apache2.service for details.
ubuntu@ip-172-31-66-108:~$ sudo !!
sudo systemctl start apache2
ubuntu@ip-172-31-66-108:~$ sudo systemctl status apache2
● apache2.service - The Apache HTTP Server
   Loaded: loaded (/lib/systemd/system/apache2.service; enabled; vendor preset:
   Drop-In: /lib/systemd/system/apache2.service.d
            └─apache2-systemd.conf
   Active: active (running) since Wed 2021-01-27 14:01:05 UTC; 3min 33s ago
 Main PID: 2799 (apache2)
   Tasks: 55 (limit: 4686)
  CGroup: /system.slice/apache2.service
          └─2799 /usr/sbin/apache2 -k start
            └─2801 /usr/sbin/apache2 -k start
              └─2802 /usr/sbin/apache2 -k start

Jan 27 14:01:05 ip-172-31-66-108 systemd[1]: Starting The Apache HTTP Server...
Jan 27 14:01:05 ip-172-31-66-108 systemd[1]: Started The Apache HTTP Server.
lines 1-14/14 (END)
```

Inbound rules

sg-0e7f0951ecdc3fa24 - launch-wizard-3

Actions ▼

Details

Security group name

launch-wizard-3

Security group ID

sg-0e7f0951ecdc3fa24

Description

launch-wizard-3 created 2021-01-27T19:24:09.190+05:30

VPC ID

vpc-95b017e8

Owner

578078719631

Inbound rules count

5 Permission entries

Outbound rules count

1 Permission entry

Inbound rules

Outbound rules

Tags

Inbound rules

Edit inbound rules

Type	Protocol	Port range	Source	Description - optional
HTTP	TCP	80	0.0.0.0/0	-
HTTP	TCP	80	:::0	-
SSH	TCP	22	0.0.0.0/0	-
DNS (TCP)	TCP	53	0.0.0.0/0	-
DNS (TCP)	TCP	53	:::0	-

→ ↻ ⚠ Not secure | ec2-3-236-47-174.compute-1.amazonaws.com ☆



# Apache2 Ubuntu 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
```

- `apache2.conf` is the main configuration file. It puts the pieces together by including all remaining configuration files when starting up the web server.
- `ports.conf` is always included from the main configuration file. It is used to determine the listening ports for incoming connections, and this file can be customized anytime.
- Configuration files in the `mods-enabled/`, `conf-enabled/` and `sites-enabled/` directories contain particular configuration snippets which manage modules, global configuration fragments, or virtual host configurations, respectively.
- They are activated by symlinking available configuration files from their respective `*-available/` counterparts. These should be managed by using our helpers `a2enmod`, `a2dismod`, `a2ensite`, `a2dissite`, and `a2enconf`, `a2disconf`. See their respective man pages for detailed information.
- The binary is called `apache2`. Due to the use of environment variables, in the default configuration, `apache2` needs to be started/stopped with `/etc/init.d/apache2` or `apache2ctl`. Calling `/usr/bin/apache2` directly will not work with the default configuration.

## Document Roots

By default, Ubuntu does not allow access through the web browser to *any* file apart of those located in `/var/www`, **public\_html** directories (when enabled) and `/usr/share` (for web applications). If your site is using a web document root located elsewhere (such as in `/srv`) you may need to whitelist your document root directory in `/etc/apache2/apache2.conf`.

The default Ubuntu document root is `/var/www/html`. You can make your own virtual hosts under `/var/www`. This is different from the upstream default configuration, which would place them outside of the `/var` hierarchy.

← → ↻ ⚠ Not secure | ec2-3-236-47-174.compute-1.amazonaws.com

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Server Software: Apache/2.4.29  
Server Hostname: ec2-3-236-47-174.compute-1.amazonaws.com  
Server Port: 80  
  
Document Path: /  
Document Length: 100 bytes  
  
Concurrency Level: 100  
Time taken for tests: 0.073 seconds  
Complete requests: 1000  
Failed requests: 290  
(Connect: 0, Receive: 0, Length: 290, Exceptions: 0)  
Keep-Alive requests: 710  
Total transferred: 288600 bytes  
HTML transferred: 71000 bytes  
Requests per second: 13755.35 [#/sec] (mean)  
Time per request: 7.270 [ms] (mean)  
Time per request: 0.073 [ms] (mean, across all concurrent requests)  
Transfer rate: 3876.75 [Kbytes/sec] received

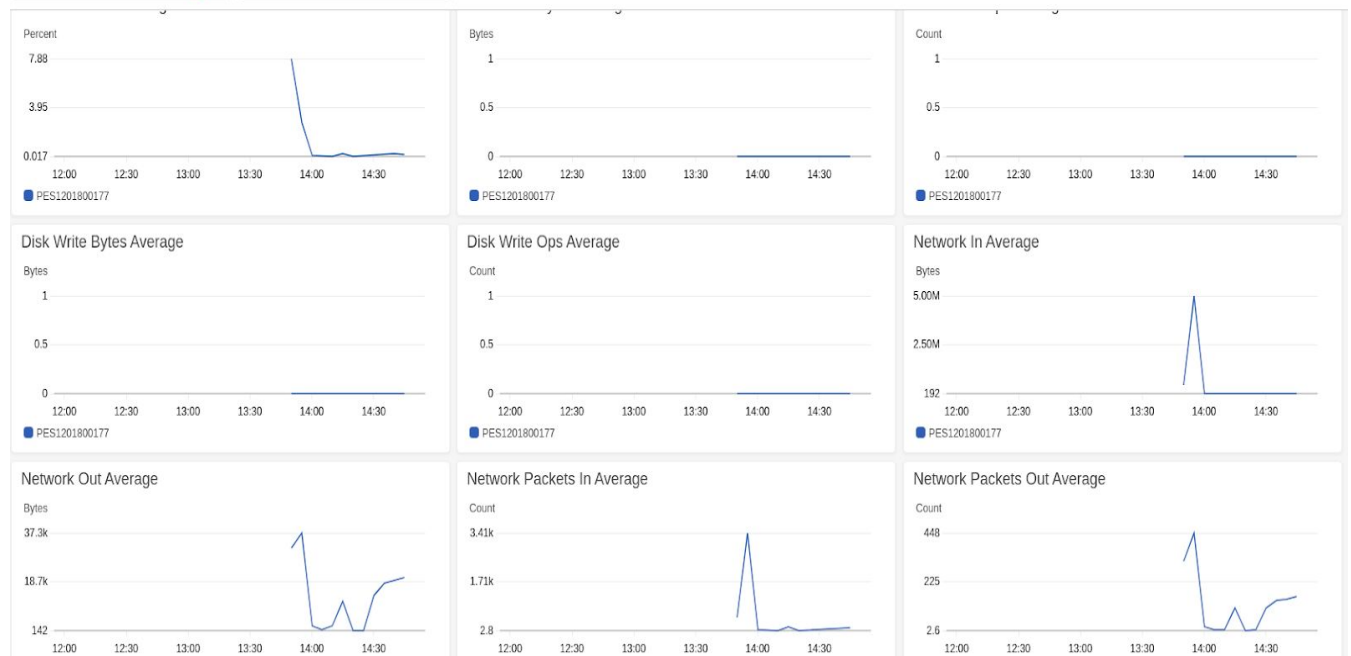
Connection Times (ms)

	min	mean[+/-sd]	median	max
Connect:	0	0 1.1	0	6
Processing:	0	6 5.5	5	25
Waiting:	0	6 5.6	3	25
Total:	0	7 5.8	5	25

Percentage of the requests served within a certain time (ms)

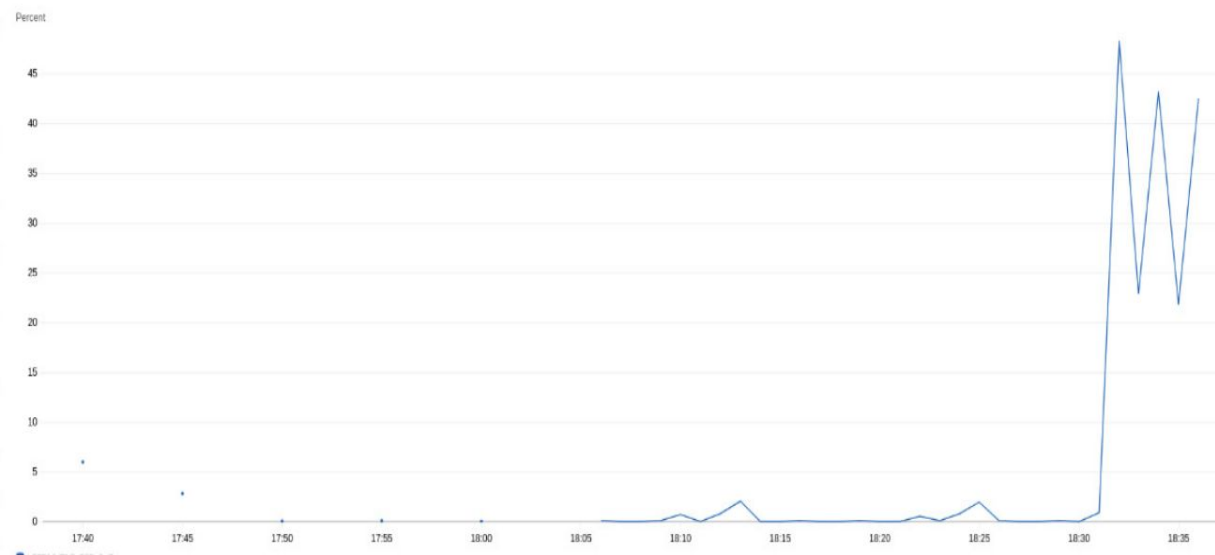
50%	5
66%	9
75%	10
80%	12
90%	16
95%	18
98%	19
99%	21
100%	25 (longest request)

ubuntu@ip-172-31-66-108:~\$ |

All resources 0 Service dashboard

## CPU utilization (%)

Average 1 Minute 1h 3h 12h 1d 3d 1w custom




## Task- B


### Environment health check

**Pes1201800177env-env**  
Pes1201800177env-env-ebb-vv67uvvg.us-east-1.elasticbeanstalk.com (e-zuz2fdptyp)  
Application name: PES1201800177-env

[Refresh](#) [Actions ▼](#)

**Health**  
  
Green  
[Causes](#)

**Running version**  
Sample Application  
[Upload and deploy](#)

**Platform**  
  
Python 3.6 running on 64bit  
Amazon Linux/2.9.17  
[Change](#)

**Recent events** [Show all](#)  
< 1 >

Time	Type	Details
2021-01-27 20:46:26 UTC+0530	INFO	Successfully launched environment: Pes1201800177env-env

## RDS

RDS > Databases > aa8cjuzq15xr1

**aa8cjuzq15xr1** [Modify](#) [Actions ▼](#)

**Summary**

DB identifier aa8cjuzq15xr1	CPU <div><div></div>2.00%</div>	Status <span>Available</span>	Class db.t2.micro
Role Instance	Current activity <div><div></div>0 Connections</div>	Engine MySQL Community	Region & AZ us-east-1d

[Connectivity & security](#) [Monitoring](#) [Logs & events](#) [Configuration](#) [Maintenance & backups](#) [Tags](#)

**Connectivity & security**

<b>Endpoint &amp; port</b> Endpoint aa8cjuzq15xr1.cgsaw0mfq5k.us-east-1.rds.amazonaws.com Port 3306	<b>Networking</b> Availability zone us-east-1d VPC vpc-95b017e8	<b>Security</b> VPC security groups rds-awseb-e-wgkiturkmi-stack-awsebrdsdbsecuritygroup-vcnp9dzq1mhl-yiod (sg-03618f324cdd5d23) (active) Public accessibility
---	---	---

## Registering a user

Overview POST http://pes120180... No Environment

<http://pes1201800177-env-1.eba-acewbbqv.us-east-1.elasticbeanstalk.com/api/register> Save Send

POST ▼ <http://pes1201800177-env-1.eba-acewbbqv.us-east-1.elasticbeanstalk.com/api/register> Send

Params Authorization Headers (7) **Body** Pre-request Script Tests Settings Cookies Beautify

☐ none ☐ form-data ☐ x-www-form-urlencoded ☒ raw ☐ binary ☐ GraphQL **JSON** ▼

```
1 {
2   "uname": "Ram",
3   "pswd": "qwer123",
4   "age": 22,
5   "mob": "8050569402"
6 }
7
```

Body Cookies Headers (5) Test Results Status: 200 OK Time: 365 ms Size: 193 B Save Response

Pretty Raw Preview Visualize **JSON** ▼ 🔍

```
1 {
2   "uname": "Ram",
3   "pswd": "qwer123",
4   "age": 22,
5   "mob": "8050569402"
6 }
```

## Verifying a user

<http://pes1201800177-env-1.eba-acewbbqv.us-east-1.elasticbeanstalk.com/api/verify>

POST ▼ <http://pes1201800177-env-1.eba-acewbbqv.us-east-1.elasticbeanstalk.com/api/verify>

Params Authorization Headers (7) **Body** Pre-request Script Tests Settings

☐ none ☐ form-data ☐ x-www-form-urlencoded ☒ raw ☐ binary ☐ GraphQL **JSON** ▼

```
1 {
2   "uname": "Ram",
3   "pswd": "qwer123"
4 }
5
```

Body Cookies Headers (5) Test Results

Pretty Raw Preview Visualize **JSON** ▼ 🔍

```
1 {
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