

# 1.Launch an EC2 instance and login via ssh furthermore, install httpd(apache).

Launched EC2 instance:

Instance: i-04292ee2419c181b7 (oshin_ec2)		
Details   Security   Networking   Storage   Status checks   Monitoring   Tags		
▼ Instance summary Info		
Instance ID i-04292ee2419c181b7 (oshin_ec2)	Public IPv4 address 34.229.187.10   <a href="#">open address</a>	Private IPv4 addresses 172.31.1.209
IPv6 address -	Instance state Running	Public IPv4 DNS ec2-34-229-187-10.compute-1.amazonaws.com   <a href="#">open address</a>
Hostname type IP name: ip-172-31-1-209.ec2.internal	Private IP DNS name (IPv4 only) ip-172-31-1-209.ec2.internal	Elastic IP addresses -
Answer private resource DNS name -	Instance type t2.micro	AWS Compute Optimizer finding User: am:aws:sts::949263681218:assumed-role/AWSReservedSSO_training_account_a7c561584130c139/oshingansi@lftecthnology.com is not authorized to perform: compute-optimizer:GetEnrollmentStatus on resource: * because no identity-based policy allows the compute-optimizer:GetEnrollmentStatus action <a href="#">Retry</a>
Auto-assigned IP address 34.229.187.10 [Public IP]	VPC ID vpc-00f8984b2df206c70 (Default VPC)   <a href="#">open address</a>	

Login via ssh

```
C:\Users\Oshin>ssh -i oshin_ec2.pem ec2-user@34.229.187.10
The authenticity of host '34.229.187.10 (34.229.187.10)' can't be established.
ECDSA key fingerprint is SHA256:FkbtbH0pUTx0IhPNReYPiBSzn6k/iAxRuicSqnfGqgNI.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '34.229.187.10' (ECDSA) to the list of known hosts.

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 _| ( _ /   Amazon Linux 2 AMI
---|\\---|---|

https://aws.amazon.com/amazon-linux-2/
2 package(s) needed for security, out of 10 available
Run "sudo yum update" to apply all updates.
[ec2-user@ip-172-31-1-209 ~]$ sudo yum update
```

Install httpd

```
Complete!
[ec2-user@ip-172-31-1-209 ~]$ sudo yum install httpd\
^
Loaded plugins: extras_suggestions, langpacks, priorities, update-motd
Resolving Dependencies
--> Running transaction check
--> Package httpd.x86_64 0:2.4.54-1.amzn2 will be installed
--> Processing Dependency: httpd-tools = 2.4.54-1.amzn2 for package: httpd-2.4.54-1.amzn2.x86_64
--> Processing Dependency: httpd-filesystem = 2.4.54-1.amzn2 for package: httpd-2.4.54-1.amzn2.x86_64
--> Processing Dependency: system-logos-httpd for package: httpd-2.4.54-1.amzn2.x86_64
--> Processing Dependency: mod_http2 for package: httpd-2.4.54-1.amzn2.x86_64
--> Processing Dependency: httpd-filesystem for package: httpd-2.4.54-1.amzn2.x86_64
--> Processing Dependency: /etc/mime.types for package: httpd-2.4.54-1.amzn2.x86_64
--> Processing Dependency: libaprutil-1.so.0(64bit) for package: httpd-2.4.54-1.amzn2.x86_64
--> Processing Dependency: libapr-1.so.0(64bit) for package: httpd-2.4.54-1.amzn2.x86_64
--> Running transaction check
--> Package apr.x86_64 0:1.7.0-9.amzn2 will be installed
--> Package apr-util.x86_64 0:1.6.1-5.amzn2.0.2 will be installed
--> Processing Dependency: apr-util-bdb(x86-64) = 1.6.1-5.amzn2.0.2 for package: apr-util-1.6.1-5.amzn2.0.2.x86_64
--> Package generic-logos-httpd.noarch 0:18.0.0-4.amzn2 will be installed
--> Package httpd-filesystem.noarch 0:2.4.54-1.amzn2 will be installed
--> Package httpd-tools.x86_64 0:2.4.54-1.amzn2 will be installed
--> Package mailcap.noarch 0:2.1.41-2.amzn2 will be installed
--> Package mod_http2.x86_64 0:1.15.19-1.amzn2.0.1 will be installed
--> Running transaction check
--> Package apr-util-bdb.x86_64 0:1.6.1-5.amzn2.0.2 will be installed
--> Finished Dependency Resolution

Dependencies Resolved

=====
Package                                Arch                                Version                                Repository                                Size
=====
Installing:
httpd                                  x86_64                              2.4.54-1.amzn2                        amzn2-core                                1.4 M
Installing for dependencies:
apr                                    x86_64                              1.7.0-9.amzn2                        amzn2-core                                122 k
apr-util                              x86_64                              1.6.1-5.amzn2.0.2                    amzn2-core                                99 k
apr-util-bdb                          x86_64                              1.6.1-5.amzn2.0.2                    amzn2-core                                19 k
generic-logos-httpd                   noarch                              18.0.0-4.amzn2                       amzn2-core                                19 k
httpd-filesystem                      noarch                              2.4.54-1.amzn2                       amzn2-core                                24 k
httpd-tools                           x86_64                              2.4.54-1.amzn2                       amzn2-core                                88 k
mailcap                               noarch                              2.1.41-2.amzn2                       amzn2-core                                31 k
mod_http2                             x86_64                              1.15.19-1.amzn2.0.1                 amzn2-core                                149 k
=====
Transaction Summary
=====
Install 1 Package (+8 Dependent packages)

Total download size: 1.9 M
Installed size: 5.2 M
```

```
Transaction Summary
=====
Install 1 Package (+8 Dependent packages)

Total download size: 1.9 M
Installed size: 5.2 M
Is this ok [y/d/n/?] y
Downloading packages:
(1/9): apr-1.7.0-9.amzn2.x86_64.rpm | 122 kB 00:00:00
(2/9): apr-util-1.6.1-5.amzn2.0.2.x86_64.rpm | 99 kB 00:00:00
(3/9): apr-util-bdb-1.6.1-5.amzn2.0.2.x86_64.rpm | 19 kB 00:00:00
(4/9): generic-logos-httpd-18.0.0-4.amzn2.noarch.rpm | 19 kB 00:00:00
(5/9): httpd-filesystem-2.4.54-1.amzn2.noarch.rpm | 24 kB 00:00:00
(6/9): httpd-2.4.54-1.amzn2.x86_64.rpm | 1.4 MB 00:00:00
(7/9): httpd-tools-2.4.54-1.amzn2.x86_64.rpm | 88 kB 00:00:00
(8/9): mailcap-2.1.41-2.amzn2.noarch.rpm | 31 kB 00:00:00
(9/9): mod_http2-1.15.19-1.amzn2.0.1.x86_64.rpm | 149 kB 00:00:00
-----
Total 9.6 MB/s | 1.9 MB 00:00:00

Running transaction check
Running transaction test
Transaction test succeeded
Running transaction
  Installing : apr-1.7.0-9.amzn2.x86_64 1/9
  Installing : apr-util-bdb-1.6.1-5.amzn2.0.2.x86_64 2/9
  Installing : apr-util-1.6.1-5.amzn2.0.2.x86_64 3/9
  Installing : httpd-tools-2.4.54-1.amzn2.x86_64 4/9
  Installing : httpd-filesystem-2.4.54-1.amzn2.noarch 5/9
  Installing : generic-logos-httpd-18.0.0-4.amzn2.noarch 6/9
  Installing : mailcap-2.1.41-2.amzn2.noarch 7/9
  Installing : mod_http2-1.15.19-1.amzn2.0.1.x86_64 8/9
  Installing : httpd-2.4.54-1.amzn2.x86_64 9/9
  Verifying : apr-util-1.6.1-5.amzn2.0.2.x86_64 1/9
  Verifying : apr-util-bdb-1.6.1-5.amzn2.0.2.x86_64 2/9
  Verifying : httpd-tools-2.4.54-1.amzn2.x86_64 3/9
  Verifying : mod_http2-1.15.19-1.amzn2.0.1.x86_64 4/9
  Verifying : httpd-2.4.54-1.amzn2.x86_64 5/9
  Verifying : mailcap-2.1.41-2.amzn2.noarch 6/9
  Verifying : generic-logos-httpd-18.0.0-4.amzn2.noarch 7/9
  Verifying : httpd-filesystem-2.4.54-1.amzn2.noarch 8/9
  Verifying : apr-1.7.0-9.amzn2.x86_64 9/9

Installed:
httpd.x86_64 0:2.4.54-1.amzn2

Dependency Installed:
apr.x86_64 0:1.7.0-9.amzn2      apr-util.x86_64 0:1.6.1-5.amzn2.0.2      apr-util-bdb.x86_64 0:1.6.1-5.amzn2.0.2      generic-logos-httpd.noarch 0:18.0.0-4.amzn2      httpd-filesystem.noarch 0:2.4.54-1.amzn2
httpd-tools.x86_64 0:2.4.54-1.amzn2      mailcap.noarch 0:2.1.41-2.amzn2      mod_http2.x86_64 0:1.15.19-1.amzn2.0.1

Complete!
[ec2-user@ip-172-31-1-209 ~]$
```

**2.Create a Dockerfile for node js and react and push the created docker images to the docker hub repository.**

Docker File:

```
Dockerfile
1  # pull official base image
2  FROM node:latest
3
4  # set working directory
5  WORKDIR /app
6
7  # add `/app/node_modules/.bin` to $PATH
8  ENV PATH /app/node_modules/.bin:$PATH
9
10 # install app dependencies
11 COPY package.json ./
12 RUN npm install -g npm@8.16.0
13 RUN npm install
14 RUN npm install react-scripts@3.4.1 -g --silent
15
16 # add app
17 COPY . ./
18
19 # start app
20 CMD ["npm", "start"]
21
```

Docker Commands:

- 1.docker build -t devops-assignment:dev .
2. docker run -d -it --rm -p 3001:3000 devops-assignment:dev
3. docker tag devops-assignment:dev oshin136/devops-assignment
4. docker push

Docker hub image:

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 oshin136

oshin136
Repositories
devops-assignment

Using 0 of 1 private repositories. [Get more](#)

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1
Add a short description for this repository

The short description is used to index your content on Docker Hub and in search engines. It's visible to users in search results.

Update

oshin136 / devops-assignment

Description

This repository does not have a description

Last pushed: 22 minutes ago

Docker commands

To push a new tag to this repository,

```
docker push oshin136/devops-assignment:tagname
```

Public View

Tags and Scans

VULNERABILITY SCANNING - DISABLED
Enable

This repository contains 1 tag(s).

TAG	OS	PULLED	PUSHED
latest		---	22 minutes ago

[See all](#)
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Automated Builds

Manually pushing images to Hub? Connect your account to GitHub or Bitbucket to automatically build and tag new images whenever your code is updated, so you can focus your time on creating.

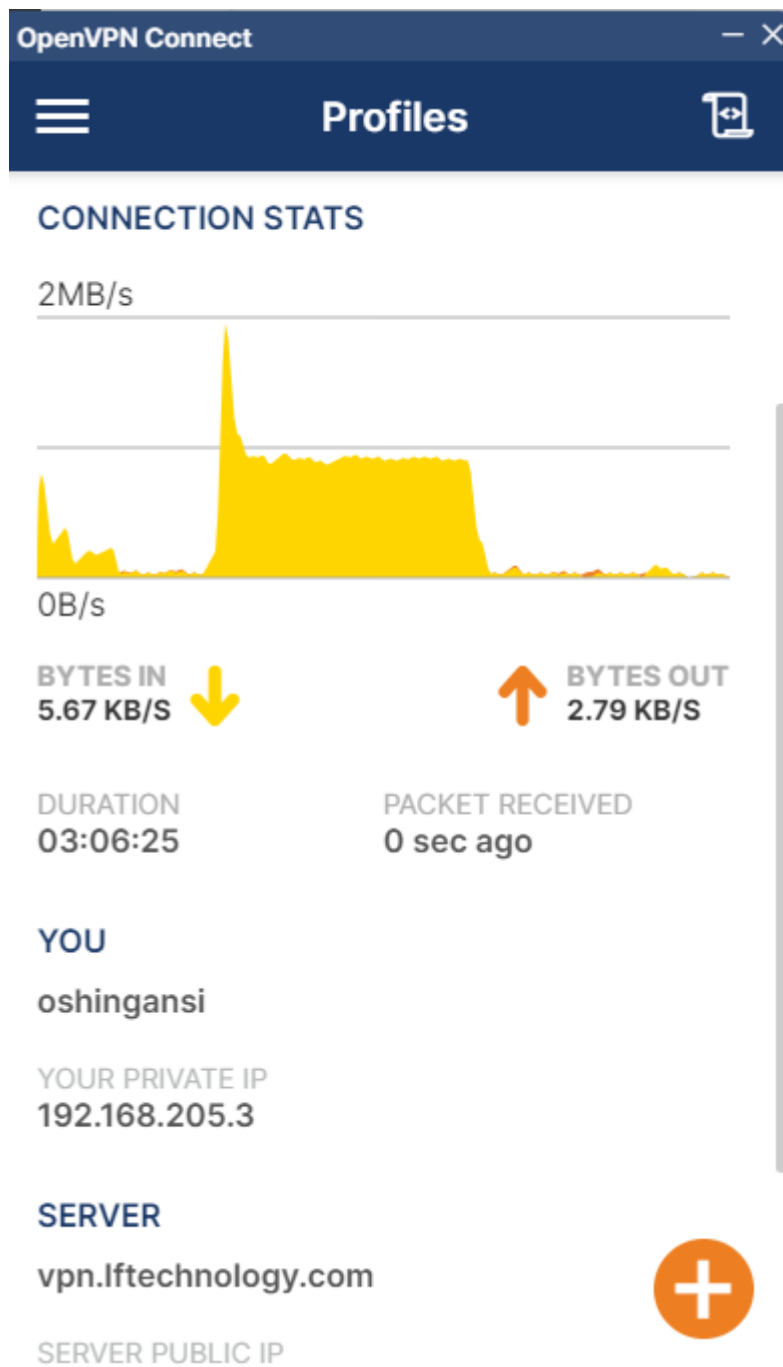
Available with Pro, Team and Business subscriptions.

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Readme

Repository description is empty. Click [here](#) to edit.

### 3.Setup office vpn and access self learning platforms.



#### **4.List down common HTTP status code(only 10) with means.**

- A. Status Code 200 :  
This is the standard “OK” status code for a successful HTTP request. The response that is returned is dependent on the request.
- B. Status Code 201:  
This is the status code that confirms that the request was successful and, as a result, a new resource was created. Typically, this is the status code that is sent after a POST/PUT request.
- C. Status Code 204 :  
This status code confirms that the server has fulfilled the request but does not need to return information.
- D. Status Code 304 :  
This status code is used for browser caching. If the response has not been modified, the client/user can continue to use the same response/cached version.
- E. Status Code 400 :  
The server cannot understand and process a request due to a client error. Missing data, domain validation, and invalid formatting are some examples that cause the status code 400 to be sent.
- F. Status Code 401 :  
This status code request occurs when authentication is required but has failed or not been provided.
- G. Status Code 403 :  
Very similar to status code 401, a status code 403 happens when a valid request was sent, but the server refuses to accept it. This happens if a client/user requires the necessary permission or they may need an account to access the resource. Unlike a status code 401, authentication will not apply here.
- H. Status Code 404 :  
The most common status code the average user will see. A status code 404 occurs when the request is valid, but the resource cannot be found on the server.
- I. Status Code 409:  
A status code 409 is sent when a request conflicts with the current state of the resource. This is usually an issue with simultaneous updates, or versions, that conflict with one another.
- J. Status Code 500 :  
Another one of the more commonly seen status codes by users, the 500 series codes are similar to the 400 series codes in that they are true error codes. The status

code 500 happens when the server cannot fulfil a request due to an unexpected issue. Web developers typically have to comb through the server logs to determine where the exact issue is coming from.

**5.Find network id and Broadcast for 150.10.20.30.**

Network id: 150.10.20.0

Broadcast Id: 150.10.20.255