

Advanced DevOps Experiment-1

Sanket More

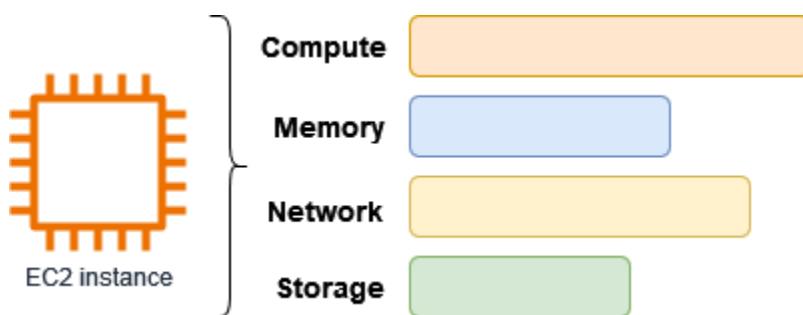
D15A 30

Aim: Using AWS CodePipeline, deploy Sample Application on EC2 instance using AWS CodeDeploy.

Theory:-

Amazon Elastic Compute Cloud (Amazon EC2) provides on-demand, scalable computing capacity in the Amazon Web Services (AWS) Cloud. Using Amazon EC2 reduces hardware costs so you can develop and deploy applications faster. You can use Amazon EC2 to launch as many or as few virtual servers as you need, configure security and networking, and manage storage. You can add capacity (scale up) to handle compute-heavy tasks, such as monthly or yearly processes, or spikes in website traffic. When usage decreases, you can reduce capacity (scale down) again.

An EC2 instance is a virtual server in the AWS Cloud. When you launch an EC2 instance, the instance type that you specify determines the hardware available to your instance. Each instance type offers a different balance of compute, memory, network, and storage resources. For more information, see the [Amazon EC2 Instance Types Guide](#).



Features of Amazon EC2

Amazon EC2 provides the following high-level features:

Instances

Virtual servers.

Amazon Machine Images (AMIs)

Preconfigured templates for your instances that package the components you need for your server (including the operating system and additional software).

Instance types

Various configurations of CPU, memory, storage, networking capacity, and graphics hardware for your instances.

Amazon EBS volumes

Persistent storage volumes for your data using Amazon Elastic Block Store (Amazon EBS).

Instance store volumes

Storage volumes for temporary data that is deleted when you stop, hibernate, or terminate your instance.

Key pairs

Secure login information for your instances. AWS stores the public key and you store the private key in a secure place.

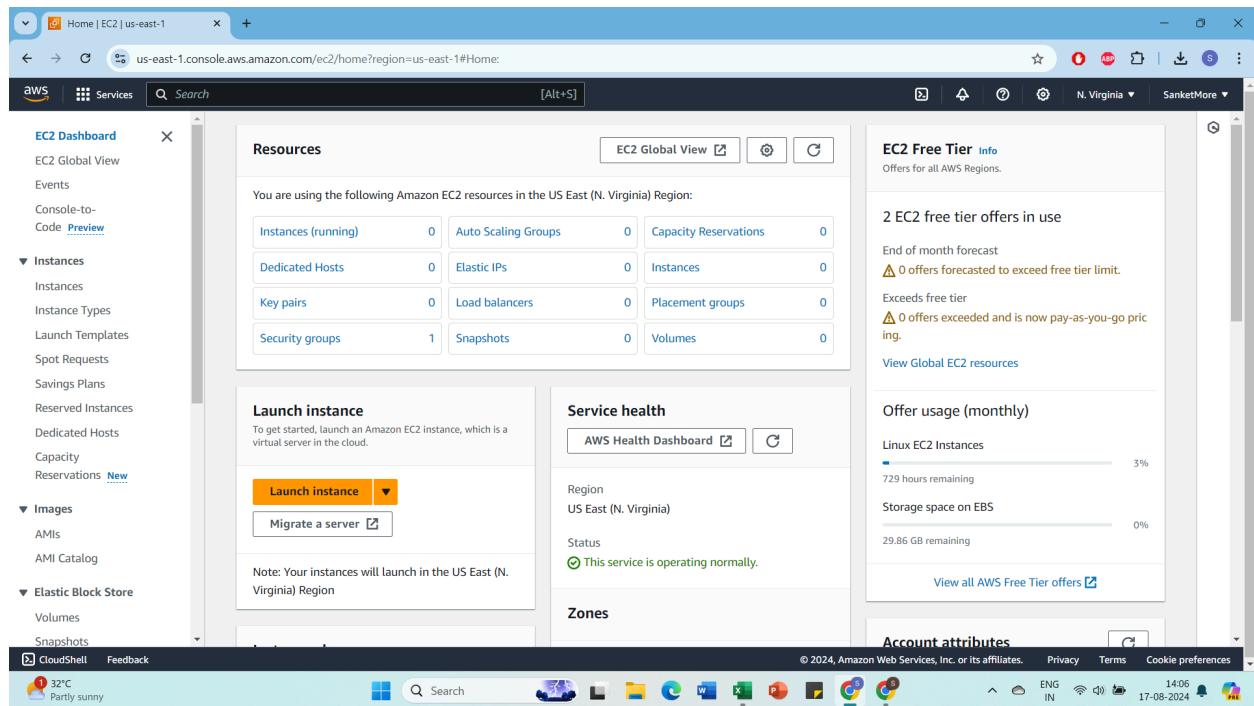
Security groups

A virtual firewall that allows you to specify the protocols, ports, and source IP ranges that can reach your instances, and the destination IP ranges to which your instances can connect.

Amazon EC2 supports the processing, storage, and transmission of credit card data by a merchant or service provider, and has been validated as being compliant with Payment Card Industry (PCI) Data Security Standard (DSS). For more information about PCI DSS, including how to request a copy of the AWS PCI Compliance Package, see [PCI DSS Level 1](#).

Implementation:-

EC2 Instance creation:



Launch an instance | EC2 | us-east-1

us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#LaunchInstances:

EC2 Services Search [Alt+S]

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Instances Launch an instance

Launch an instance Info

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 Info

Name: My_instance Add additional tags

Application and OS Images (Amazon Machine Image) Info

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

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Summary

Number of instances Info: 1

Software Image (AMI): Amazon Linux 2023 AMI 2023.5.2... read more
ami-0ae8f15ae6fe8cda

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 I/Os, 1 GB of snapshots, and 100 GB of bandwidth to the internet.

Cancel Launch instance Review commands

Launch an instance | EC2 | us-east-1

us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#LaunchInstances:

EC2 Services Search [Alt+S]

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Quick Start

Amazon Linux macOS Ubuntu Windows Red Hat SUSE Li

AWS Mac ubuntu Microsoft Red Hat SUSE Li

Browse more AMIs Including AMIs from AWS, Marketplace and the Community

Amazon Machine Image (AMI)

Amazon Linux 2023 AMI Free tier eligible
ami-0ae8f15ae6fe8cda (64-bit (x86), uefi-preferred) / ami-0e36db3a3a535e401 (64-bit (Arm), uefi)
Virtualization: hvm ENA enabled: true Root device type: ebs

Description

Amazon Linux 2023 is a modern, general purpose Linux-based OS that comes with 5 years of long term support. It is optimized for AWS and designed to provide a secure, stable and high-performance execution environment to develop and run your cloud applications.

Architecture: 64-bit (x86) Boot mode: uefi-preferred AMI ID: ami-0ae8f15ae6fe8cda Verified provider

Instance type Info | Get advice

Summary

Number of instances Info: 1

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 I/Os, 1 GB of snapshots, and 100 GB of bandwidth to the internet.

Cancel Launch instance Review commands

The screenshot shows the AWS CloudShell interface with two tabs open:

- Launch an instance | EC2 | us-east-1**: This tab displays the configuration for launching an EC2 instance. It includes sections for "Configure storage" (root volume of 8 GiB gp3), "Advanced details" (Free tier information), and a "Summary" section indicating 1 instance. A tooltip for the Free tier explains its benefits.
- Course Invitation - 2022.sanket**: This tab shows the execution results of the Lambda function. It displays a green "Success" message: "Successfully initiated launch of instance (i-058a79978ba0d38ae)". Below this, there is a "Launch log" link and a "Next Steps" section with several options: "Create billing and free tier usage alerts", "Connect to your instance", "Connect an RDS database", and "Create EBS snapshot policy".

The AWS CloudShell interface at the bottom of the screen also shows the Lambda function name and the user's session details.

Screenshot of the AWS EC2 Instances page showing a single instance named "My-Website" (i-058a79978ba0d38ae) in the "Running" state.

The "Details" tab is selected, displaying the following information:

Instance ID	Public IPv4 address	Private IPv4 addresses
i-058a79978ba0d38ae (My-Website)	35.173.204.195 open address	172.31.36.30
IPv6 address	Instance state	Public IPv4 DNS
-	Running	ec2-35-173-204-195.compute-1.amazonaws.com

The "Connect" tab is selected in the main header, showing the following options:

- EC2 Instance Connect** (selected)
- Session Manager
- SSH client
- EC2 serial console

A warning message states: "Port 22 (SSH) is open to all IPv4 addresses. Port 22 (SSH) is currently open to all IPv4 addresses, indicated by 0.0.0.0/0 in the inbound rule in your security group. For increased security, consider restricting access to only the EC2 Instance Connect service IP addresses for your Region: 18.206.107.24/29." A link to "Learn more" is provided.

Below the connection options, the instance ID is listed as "i-058a79978ba0d38ae (My-Website)".

The "Connection Type" section shows two options:

- Connect using EC2 Instance Connect: "Connect using the EC2 Instance Connect browser-based client, with a public IPv4 address."
- Connect using EC2 Instance Connect Endpoint: "Connect using the EC2 Instance Connect browser-based client, with a private IPv4 address and a VPC endpoint."

The browser status bar at the bottom indicates: "CloudShell Feedback © 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences ENG US 13:04 08-08-2024".

Static website hosting using EC2:-

```
See "man sudo_root" for details.

ubuntu@ip-172-31-41-61:~$ sudo su
root@ip-172-31-41-61:/home/ubuntu# sudo apt install
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
root@ip-172-31-41-61:/home/ubuntu# sudo apt-get update
Hit:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble InRelease
Get:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates InRelease [126 kB]
Get:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports InRelease [126 kB]
Get:4 http://security.ubuntu.com/ubuntu noble-security InRelease [126 kB]
Get:5 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 Packages [15.0 MB]
Get:6 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/universe Translation-en [5982 kB]
Get:7 http://security.ubuntu.com/ubuntu noble-security/main amd64 Packages [294 kB]
Get:8 http://security.ubuntu.com/ubuntu noble-security/main amd64 c-n-f Metadata [3768 B]
Get:9 http://security.ubuntu.com/ubuntu noble-security/universe amd64 Packages [250 kB]
Get:10 http://security.ubuntu.com/ubuntu noble-security/universe Translation-en [108 kB]
Get:11 http://security.ubuntu.com/ubuntu noble-security/universe amd64 Components [8632 B]
Get:12 http://security.ubuntu.com/ubuntu noble-security/universe amd64 c-n-f Metadata [9412 B]

Reading package lists... Done
root@ip-172-31-41-61:/home/ubuntu# apt install apache2
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  apache2-bin apache2-data apache2-utils libaprutil1 libaprutil1-db5 libaprutil1-ldap libaprutil1t64 liblua5.4-0 ssl-cert
Suggested packages:
  apache2-doc apache2-suexec-pristine | apache2-suexec-custom www-browser
The following NEW packages will be installed:
  apache2 apache2-bin apache2-data apache2-utils libaprutil1 libaprutil1-db5 libaprutil1-ldap libaprutil1t64 liblua5.4-0 ssl-cert
0 upgraded, 10 newly installed, 0 to remove and 53 not upgraded.
Need to get 2083 kB of archives.
After this operation, 8094 kB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/main amd64 libapr1t64 amd64 1.7.2-3.1build2 [107 kB]
Get:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/main amd64 libaprutil1t64 amd64 1.6.3-1.1ubuntu7 [91.9 kB]
Get:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/main amd64 libaprutil1-db5-sqlite3 amd64 1.6.3-1.1ubuntu7 [11.2 kB]
Get:4 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/main amd64 libaprutil1-ldap amd64 1.6.3-1.1ubuntu7 [9116 B]
Get:5 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/main amd64 liblua5.4-0 amd64 5.4.6-3build2 [166 kB]
Get:6 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 apache2-bin amd64 2.4.58-1ubuntu8.4 [1329 kB]
Get:7 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 apache2-data all 2.4.58-1ubuntu8.4 [163 kB]
Get:8 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 apache2-utils amd64 2.4.58-1ubuntu8.4 [97.1 kB]
Get:9 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 apache2 amd64 2.4.58-1ubuntu8.4 [90.2 kB]

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.
root@ip-172-31-41-61:/home/ubuntu# 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 2024-08-18 12:30:09 UTC; 30s ago
    Docs: https://httpd.apache.org/docs/2.4/
   Main PID: 2442 (apache2)
      Tasks: 55 (limit: 1130)
     Memory: 5.4M (peak: 5.7M)
        CPU: 40ms
       CGroup: /system.slice/apache2.service
           └─2442 /usr/sbin/apache2 -k start
              ├─2445 /usr/sbin/apache2 -k start
              └─2446 /usr/sbin/apache2 -k start

Aug 18 12:30:09 ip-172-31-41-61 systemd[1]: Starting apache2.service - The Apache HTTP Server...
Aug 18 12:30:09 ip-172-31-41-61 systemd[1]: Started apache2.service - The Apache HTTP Server.
root@ip-172-31-41-61:/home/ubuntu# cd /var/www/html
root@ip-172-31-41-61:/var/www/html# 
```

EC2 > Security Groups > sg-0e7811c687e701e30 - launch-wizard-7

sg-0e7811c687e701e30 - launch-wizard-7

Actions ▾

Details

Security group name	Security group ID	Description	VPC ID
launch-wizard-7	sg-0e7811c687e701e30	launch-wizard-7 created 2024-08-18T11:25:33.225Z	vpc-08963bc0f8afcd789 Edit
Owner	Inbound rules count	Outbound rules count	
608111999703	1 Permission entry	1 Permission entry	

Inbound rules

Outbound rules

Tags

Inbound rules (1)

[Create](#)

Manage tags

Edit inbound rules

[Search](#)

< 1 > [Edit](#)

EC2 > Security Groups > sg-0896d82a58154b33d

sg-0896d82a58154b33d - launch-wizard-9

Actions ▾

Details

Security group name	Security group ID	Description	VPC ID
launch-wizard-9	sg-0896d82a58154b33d	launch-wizard-9 created 2024-08-18T12:21:13.480Z	vpc-08963bc0f8afcd789 Edit
Owner	Inbound rules count	Outbound rules count	
608111999703	3 Permission entries	1 Permission entry	

Inbound rules

Outbound rules

Tags

Inbound rules (3)

[Create](#)

Manage tags

Edit inbound rules

Security group name launch-wizard-9	Security group ID sg-0896d82a58154b33d	Description launch-wizard-9 created 2024-08-18T12:21:13.480Z	VPC ID vpc-08963bc0f8afcd789
Owner 608111999703	Inbound rules count 3 Permission entries	Outbound rules count 1 Permission entry	

Inbound rules **Outbound rules** Tags

Outbound rules (1)

<input type="checkbox"/>	Name	Security group rule...	IP version	Type	Protocol
<input type="checkbox"/>	-	sgr-06dd7ee61f83e4e88	IPv4	All traffic	All

Not secure 54.162.220.58

The page content includes a note about the default welcome page, documentation for configuration, and a code block showing the configuration layout.

```

/etc/apache2/
|-- apache2.conf
|   '-- ports.conf
|-- mods-enabled
|   '-- *.Load
|   '-- *.conf
|-- conf-enabled

```

DYNAMIC HOSTING ON EC2:

Course Invitation - 20 | Launch AWS Academy | Launch an instance | Instances | EC2 | us-east-1 | EC2 Instance Connect | moresanek4003.ip... | +

us-east-1.console.aws.amazon.com/ec2-instance-connect/ssh?connType=standard&instanceId=i-058a79978ba0d38ae&osUser=ec2-user®ion=us-east-1&ssh... Error

aws Services Search [Alt+S] N. Virginia v ovlabs/user3402836-MORE_SANKET_SATISH_@8774-7768-5784

Amazon Linux 2023
https://aws.amazon.com/linux/amazon-linux-2023

```
[ec2-user@ip-172-31-36-30 ~]$ sudo su
sudo: su: command not found
[ec2-user@ip-172-31-36-30 ~]$ yum update -y
Error: This command has to be run with superuser privileges (under the root user on most systems).
[ec2-user@ip-172-31-36-30 ~]$ yum install -y httpd
Error: This command has to be run with superuser privileges (under the root user on most systems).
[ec2-user@ip-172-31-36-30 ~]$ systemctl status httpd
Unit httpd.service could not be found.
[ec2-user@ip-172-31-36-30 ~]$ mkdir aws_assgl
[ec2-user@ip-172-31-36-30 ~]$ cd aws_assgl
[ec2-user@ip-172-31-36-30 aws_assgl]$ wget https://github.com/moresanek4003/ip_Assignment_1.git
```

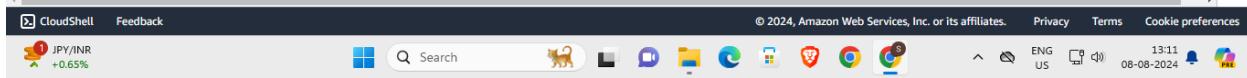
```
[ec2-user@ip-172-31-36-30 ~]$ yum update -y
Error: This command has to be run with superuser privileges (under the root user on most systems).
[ec2-user@ip-172-31-36-30 ~]$ yum install -y httpd
Error: This command has to be run with superuser privileges (under the root user on most systems).
[ec2-user@ip-172-31-36-30 ~]$ systemctl status httpd
Unit httpd.service could not be found.
[ec2-user@ip-172-31-36-30 ~]$ mkdir aws_assgl
[ec2-user@ip-172-31-36-30 ~]$ cd aws_assgl
[ec2-user@ip-172-31-36-30 aws_assgl]$ wget https://github.com/moresanket4003/ip_Assignment_1.git
--2024-08-08 07:41:09-- https://github.com/moresanket4003/ip_Assignment_1.git
Resolving github.com (github.com)... 140.82.113.3
Connecting to github.com (github.com)|140.82.113.3|:443... connected.
HTTP request sent, awaiting response... 301 Moved Permanently
Location: https://github.com/moresanket4003/ip_Assignment_1 [following]
--2024-08-08 07:41:09-- https://github.com/moresanket4003/ip_Assignment_1
Reusing existing connection to github.com:443.
HTTP request sent, awaiting response... 200 OK
Length: unspecified [text/html]
Saving to: 'ip_Assignment_1.git'

ip_Assignment_1.git          [ <=>                               ] 253.04K  --.-KB/s   in 0.01s

2024-08-08 07:41:09 (18.2 MB/s) - 'ip_Assignment_1.git' saved [259108]
```

i-058a79978ba0d38ae (My-Website)

PublicIPs: 35.173.204.195 PrivateIPs: 172.31.36.30



```
[ec2-user@ip-172-31-36-30 ~]$ systemctl status httpd
Unit httpd.service could not be found.
[ec2-user@ip-172-31-36-30 ~]$ mkdir aws_assgl
[ec2-user@ip-172-31-36-30 ~]$ cd aws_assgl
[ec2-user@ip-172-31-36-30 aws_assgl]$ wget https://github.com/moresanket4003/ip_Assignment_1.git
--2024-08-08 07:41:09-- https://github.com/moresanket4003/ip_Assignment_1.git
Resolving github.com (github.com)... 140.82.113.3
Connecting to github.com (github.com)|140.82.113.3|:443... connected.
HTTP request sent, awaiting response... 301 Moved Permanently
Location: https://github.com/moresanket4003/ip_Assignment_1 [following]
--2024-08-08 07:41:09-- https://github.com/moresanket4003/ip_Assignment_1
Reusing existing connection to github.com:443.
HTTP request sent, awaiting response... 200 OK
Length: unspecified [text/html]
Saving to: 'ip_Assignment_1.git'

ip_Assignment_1.git          [ <=>                               ] 253.04K  --.-KB/s   in 0.01s

2024-08-08 07:41:09 (18.2 MB/s) - 'ip_Assignment_1.git' saved [259108]

[ec2-user@ip-172-31-36-30 aws_assgl]$ ls -lrt
total 256
-rw-r--r--. 1 ec2-user ec2-user 259108 Aug  8 07:41 ip_Assignment_1.git
[ec2-user@ip-172-31-36-30 aws_assgl]$
```

i-058a79978ba0d38ae (My-Website)

PublicIPs: 35.173.204.195 PrivateIPs: 172.31.36.30



```
Course Invitation - 20 | Launch AWS Academy | Launch an instance | Instances | EC2 | us-east-1 | EC2 Instance Connect | moresaneket4003/ip_ | + | Error | us-east-1.console.aws.amazon.com/ec2-instance-connect/ssh?connType=standard&instanceId=i-058a79978ba0d38ae&osUser=ec2-user&region=us-east-1&ssh... | S | Error | N. Virginia | vocabs/user3402836+MORE_SANKET_SATISH_@8774-7768-5784 |
```

2024-08-08 07:41:09 (18.2 MB/s) - 'ip_Assignment_1.git' saved [259108]

```
[ec2-user@ip-172-31-36-30 aws_assg1]$ ls -lrt
total 256
-rw-r--r--. 1 ec2-user ec2-user 259108 Aug 8 07:41 ip_Assignment_1.git
[ec2-user@ip-172-31-36-30 aws_assg1]$ wget https://github.com/moresaneket4003/ip_Assignment_1/archive/refs/heads/main.zip
--2024-08-08 07:51:14-- https://github.com/moresaneket4003/ip_Assignment_1/archive/refs/heads/main.zip
Resolving github.com (github.com)... 140.82.112.4
Connecting to github.com (github.com)|140.82.112.4|:443... connected.
HTTP request sent, awaiting response... 302 Found
Location: https://codeload.github.com/moresaneket4003/ip_Assignment_1/zip/refs/heads/main [following]
--2024-08-08 07:51:15-- https://codeload.github.com/moresaneket4003/ip_Assignment_1/zip/refs/heads/main
Resolving codeload.github.com (codeload.github.com)... 140.82.114.10
Connecting to codeload.github.com (codeload.github.com)|140.82.114.10|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: unspecified [application/zip]
Saving to: 'main.zip'

main.zip [ <=> ] 4.56M --.-KB/s in 0.05s
```



```
Course Invitation - 20 | Launch AWS Academy | Launch an instance | Instances | EC2 | us-east-1 | EC2 Instance Connect | moresaneket4003/ip_ | + | Error | us-east-1.console.aws.amazon.com/ec2-instance-connect/ssh?connType=standard&instanceId=i-058a79978ba0d38ae&osUser=ec2-user&region=us-east-1&ssh... | S | Error | N. Virginia | vocabs/user3402836+MORE_SANKET_SATISH_@8774-7768-5784 |
```

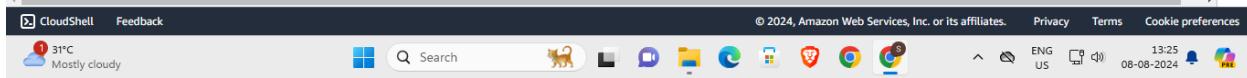
total 256
-rw-r--r--. 1 ec2-user ec2-user 259108 Aug 8 07:41 ip_Assignment_1.git
[ec2-user@ip-172-31-36-30 aws_assg1]\$ wget https://github.com/moresaneket4003/ip_Assignment_1/archive/refs/heads/main.zip
--2024-08-08 07:51:14-- https://github.com/moresaneket4003/ip_Assignment_1/archive/refs/heads/main.zip
Resolving github.com (github.com)... 140.82.112.4
Connecting to github.com (github.com)|140.82.112.4|:443... connected.
HTTP request sent, awaiting response... 302 Found
Location: https://codeload.github.com/moresaneket4003/ip_Assignment_1/zip/refs/heads/main [following]
--2024-08-08 07:51:15-- https://codeload.github.com/moresaneket4003/ip_Assignment_1/zip/refs/heads/main
Resolving codeload.github.com (codeload.github.com)... 140.82.114.10
Connecting to codeload.github.com (codeload.github.com)|140.82.114.10|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: unspecified [application/zip]
Saving to: 'main.zip'

main.zip [<=>] 4.56M --.-KB/s in 0.05s



```
[ec2-user@ip-172-31-36-30 aws_assgl]$ ls -lrt
total 4932
-rw-r--r--. 1 ec2-user ec2-user 259108 Aug 8 07:41 ip_Assignment_1.git
-rw-r--r--. 1 ec2-user ec2-user 4784447 Aug 8 07:51 main.zip
[ec2-user@ip-172-31-36-30 aws_assgl]$ unzip main.zip
Archive: main.zip
  creating: ip Assignment 1-main/
  inflating: ip Assignment 1-main/index.html
  inflating: ip Assignment 1-main/italian_recording1.mp4
  inflating: ip Assignment 1-main/menu_italian.jpg
[ec2-user@ip-172-31-36-30 aws_assgl]$ ls -lrt
total 4932
drwxr-xr-x. 2 ec2-user ec2-user 78 Aug 5 04:32 ip_Assignment_1-main
-rw-r--r--. 1 ec2-user ec2-user 259108 Aug 8 07:41 ip_Assignment_1.git
-rw-r--r--. 1 ec2-user ec2-user 4784447 Aug 8 07:51 main.zip
[ec2-user@ip-172-31-36-30 aws_assgl]$ cd^C
[ec2-user@ip-172-31-36-30 aws_assgl]$ cd ip_Assignment 1-main
[ec2-user@ip-172-31-36-30 ip_Assignment_1-main]$ ls -lrt
total 4788
-rw-r--r--. 1 ec2-user ec2-user 140394 Aug 5 04:32 menu_italian.jpg
-rw-r--r--. 1 ec2-user ec2-user 4746438 Aug 5 04:32 italian_recording1.mp4
-rw-r--r--. 1 ec2-user ec2-user 10887 Aug 5 04:32 index.html
[ec2-user@ip-172-31-36-30 ip_Assignment_1-main]$
```

i-058a79978ba0d38ae (My-Website)
PublicIPs: 35.173.204.195 PrivateIPs: 172.31.36.30



```
[ec2-user@ip-172-31-36-30 aws_assgl]$ ls -lrt
total 4932
-rw-r--r--. 1 root root 259108 Aug 8 08:03 ip_Assignment_1.git
-rw-r--r--. 1 root root 4784447 Aug 8 08:04 main.zip
[root@ip-172-31-36-30 aws_assgl]$ unzip main.zip
Archive: main.zip
  creating: ip Assignment 1-main/
  inflating: ip Assignment 1-main/index.html
  inflating: ip Assignment 1-main/italian_recording1.mp4
  inflating: ip Assignment 1-main/menu_italian.jpg
[root@ip-172-31-36-30 aws_assgl]$ ls -lrt
total 4932
drwxr-xr-x. 2 root root 78 Aug 5 04:32 ip_Assignment_1-main
-rw-r--r--. 1 root root 259108 Aug 8 08:03 ip_Assignment_1.git
-rw-r--r--. 1 root root 4784447 Aug 8 08:04 main.zip
[root@ip-172-31-36-30 aws_assgl]$ cd ip_Assignment 1-main
[root@ip-172-31-36-30 ip_Assignment_1-main]$ ls -lrt
total 4788
-rw-r--r--. 1 root root 140394 Aug 5 04:32 menu_italian.jpg
-rw-r--r--. 1 root root 4746438 Aug 5 04:32 italian_recording1.mp4
-rw-r--r--. 1 root root 10887 Aug 5 04:32 index.html
[root@ip-172-31-36-30 ip_Assignment_1-main]$ mv * /var/www/html
[root@ip-172-31-36-30 ip_Assignment_1-main]$ cd /var/www/html
[root@ip-172-31-36-30 html]$
```

i-058a79978ba0d38ae (My-Website)
PublicIPs: 35.173.204.195 PrivateIPs: 172.31.36.30



```

[root@ip-172-31-36-30 ip_Assignment_1-main]# ls -lrt
total 4788
-rw-r--r--. 1 root root 140394 Aug 5 04:32 menu_italian.jpg
-rw-r--r--. 1 root root 4746438 Aug 5 04:32 italian_recording1.mp4
-rw-r--r--. 1 root root 10887 Aug 5 04:32 index.html
[root@ip-172-31-36-30 ip_Assignment_1-main]# mv * /var/www/html/
mv: overwrite '/var/www/html/index.html'?
mv: overwrite '/var/www/html/italian_recording1.mp4'?
mv: overwrite '/var/www/html/menu_italian.jpg'?
[root@ip-172-31-36-30 ip_Assignment_1-main]# cd /var/www/html
[root@ip-172-31-36-30 html]# ls -lrt
total 4788
-rw-r--r--. 1 root root 140394 Aug 5 04:32 menu_italian.jpg
-rw-r--r--. 1 root root 4746438 Aug 5 04:32 italian_recording1.mp4
-rw-r--r--. 1 root root 10887 Aug 5 04:32 index.html
[root@ip-172-31-36-30 html]# systemctl status httpd
  ● httpd.service - The Apache HTTP Server
    Loaded: loaded (/usr/lib/systemd/system/httpd.service; disabled; preset: disabled)
      Active: inactive (dead)
        Docs: man:httpd.service(8)
[root@ip-172-31-36-30 html]# systemctl enable httpd
Created symlink /etc/systemd/system/multi-user.target.wants/httpd.service → /usr/lib/systemd/system/httpd.service.
[root@ip-172-31-36-30 html]# systemctl start httpd
[root@ip-172-31-36-30 html]#

```

i-058a79978ba0d38ae (My-Website)
PublicIPs: 35.173.204.195 PrivateIPs: 172.31.36.30

CloudShell Feedback

CloudShell Search

CloudShell Terminal

CloudShell Status: 30°C Mostly cloudy

CloudShell Navigation: CloudShell Feedback

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Instances (1/1) Info

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone
My-Website	i-058a79978ba0d38ae	Running	t2.micro	2/2 checks passed	View alarms +	us-east-1c

i-058a79978ba0d38ae (My-Website)

- s copied
- 35.173.204.195 [Public IP]
- VPC ID: vpc-01ae12dcbe2a5aeb9
- Subnet ID: subnet-0c208f956e5d78d6a
- Instance ARN: arn:aws:ec2:us-east-1:123456789012:instance/i-058a79978ba0d38ae
- AWS Compute Optimizer finding: Opt-in to AWS Compute Optimizer for recommendations.
- Auto Scaling Group name: -

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Inbound security group rules successfully modified on security group (sg-02b121f0bd66ade84 | launch-wizard-2)

Security Groups (3) info

Name	Security group ID	Security group name	VPC ID
-	sg-02b121f0bd66ade84	launch-wizard-2	vpc-01ae12dcbe2a5aeb9
-	sg-0a0160a47f50d0f2	default	vpc-01ae12dcbe2a5aeb9
-	sg-027d77b5cc42040b	Launch wizard-1	vpc-01ae12dcbe2a5aeb9

Inbound rules (3)

Name	Security group rule...	IP version	Type	Protocol
sgr-0e6522ac562f26628	SSH	TCP	22	Cust... 0.0.0.0/0
sgr-08d998234f9b3b741	HTTP	TCP	80	Cust... 0.0.0.0/0
sgr-0b658bfd4a867c65f	HTTPS	TCP	443	Cust... 0.0.0.0/0

Edit inbound rules

Inbound rules control the incoming traffic that's allowed to reach the instance.

Inbound rules Info

Security group rule ID	Type	Protocol	Port range	Source	Description - optional
sgr-0e6522ac562f26628	SSH	TCP	22	Cust... 0.0.0.0/0	
sgr-08d998234f9b3b741	HTTP	TCP	80	Cust... 0.0.0.0/0	
sgr-0b658bfd4a867c65f	HTTPS	TCP	443	Cust... 0.0.0.0/0	

The screenshot shows a web browser window with the following details:

- Address Bar:** Shows the URL `35.173.204.195` and a "Not secure" warning.
- Content Area:**
 - Logo:** A white square containing a green spoon, a grey fork, and a red knife.
 - Text:** "ITALIAN" in large bold letters, "FOOD" in smaller letters below it.
 - Section:** "Restaurant Reservation Portal".
 - Navigation:** Links for "Home", "Menu", "Reservation", and "Contact Us".
 - Offer Section:** "Special Offers" with links for "Happy Hour" and "Weekend Special".
 - Welcome Message:** "Welcome to Italian Food, where the essence of Italy comes alive in every dish. Nestled in the heart of Thane, our restaurant offers a delightful escape to the enchanting".
- Taskbar:** Shows the Windows Start button, a search bar, pinned icons for File Explorer, Edge, File History, Task View, and Google Chrome, system status (ENG US), and a date/time indicator (08-08-2024, 14:37).

STATIC WEBSITE HOSTING USING S3 BUCKET:

The screenshot shows the AWS S3 'Create bucket' wizard in three sequential steps:

- Step 1: General configuration**
 - AWS Region:** Europe (Stockholm) eu-north-1
 - Bucket type:** General purpose (Recommended for most use cases and access patterns. General purpose buckets are the original S3 bucket type. They allow a mix of storage classes that redundantly store objects across multiple Availability Zones.)
 - Bucket name:** Sanket_Bucket_1
 - Copy settings from existing bucket - optional:** Only the bucket settings in the following configuration are copied.
- Step 2: Default encryption**
 - Encryption type:** Server-side encryption with Amazon S3 managed keys (SSE-S3)
 - Bucket Key:** Using an S3 Bucket Key for SSE-KMS reduces encryption costs by lowering calls to AWS KMS. S3 Bucket Keys aren't supported for DSSE-KMS. [Learn more](#)
 - Bucket Key status:** Enable
- Step 3: Advanced settings**
 - Note:** After creating the bucket, you can upload files and folders to the bucket, and configure additional bucket settings.

Buttons at the bottom: Cancel, Create bucket

S3 buckets | S3 | eu-north-1

eu-north-1.console.aws.amazon.com/s3/buckets?region=eu-north-1&bucketType=general

Services Search [Alt+S]

Amazon S3 > Buckets

Successfully created bucket "sanket-bucket1"
To upload files and folders, or to configure additional bucket settings, choose View details.

View details

Amazon S3 > Buckets

▶ Account snapshot - updated every 24 hours All AWS Regions

Storage lens provides visibility into storage usage and activity trends. Learn more

View Storage Lens dashboard

General purpose buckets (2) Info All AWS Regions

Buckets are containers for data stored in S3.

Find buckets by name

Name AWS Region IAM Access Analyzer Creation date

Name	AWS Region	IAM Access Analyzer	Creation date
elasticbeanstalk-eu-north-1-869935102438	Europe (Stockholm) eu-north-1	View analyzer for eu-north-1	August 15, 2024, 16:27:46 (UTC+05:30)
sanket-bucket1	Europe (Stockholm) eu-north-1	View analyzer for eu-north-1	August 19, 2024, 17:22:35 (UTC+05:30)

Upload objects - S3 bucket sanket-bucket1

eu-north-1.console.aws.amazon.com/s3/upload/sanket-bucket1?region=eu-north-1&bucketType=general

Services Search [Alt+S]

Files and folders (2 Total, 47.8 KB)

All files and folders in this table will be uploaded.

Find by name

Name	Folder	Type
pic1.jpg		image/jpeg

Destination Info

Destination s3://sanket-bucket1

Destination details Bucket settings that impact new objects stored in the specified destination.

Permissions Grant public access and access to other AWS accounts.

Properties Specify storage class, encryption settings, tags, and more.

Cancel Upload

CloudShell Feedback

31°C Mostly cloudy

Search

ENG IN 17:23 19-08-2024

Upload objects - S3 bucket sanketbucket1

eu-north-1.console.aws.amazon.com/s3/upload/sanket-bucket1?region=eu-north-1&bucketType=general

Amazon S3 > Buckets > sanket-bucket1 > Upload

Upload

Add the files and folders you want to upload to S3. To upload a file larger than 160GB, use the AWS CLI, AWS SDK or Amazon S3 REST API. [Learn more](#)

Drag and drop files and folders you want to upload here, or choose Add files or Add folder.

Files and folders (2 Total, 47.8 KB)		
All files and folders in this table will be uploaded.		
<input type="text"/> Find by name		
<input type="checkbox"/>	Name	Folder
<input type="checkbox"/>	index21.html	text/html
<input type="checkbox"/>	pic1.jpg	image/jpeg

Destination

CloudShell Feedback

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ENG IN 17:23 19-08-2024

Upload objects - S3 bucket sanketbucket1

eu-north-1.console.aws.amazon.com/s3/upload/sanket-bucket1?region=eu-north-1&bucketType=general

Amazon S3 > Buckets > sanket-bucket1 > Upload

Upload succeeded

View details below.

Summary

Destination	Succeeded	Failed
s3://sanket-bucket1	2 files, 47.8 KB (100.00%)	0 files, 0 B (0%)

Files and folders Configuration

Files and folders (2 Total, 47.8 KB)

Files and folders (2 Total, 47.8 KB)						
<input type="text"/> Find by name						
Name	Folder	Type	Size	Status	Error	
index21.htm...	-	text/html	3.8 KB	Successed	-	
pic1.jpg	-	image/jpeg	44.0 KB	Successed	-	

CloudShell Feedback

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ENG IN 17:24 19-08-2024

The screenshot shows the AWS S3 console interface. At the top, the URL is eu-north-1.console.aws.amazon.com/s3/buckets/sanket-bucket1?region=eu-north-1&bucketType=general&tab=objects. The page title is 'sanket-bucket1'. Below the title, there are tabs for Objects, Properties, Permissions, Metrics, Management, and Access Points. The Objects tab is selected. The main area shows a table of objects:

	Name	Type	Last modified	Size	Storage class
<input type="checkbox"/>	index21.html	html	August 19, 2024, 17:24:08 (UTC+05:30)	3.8 KB	Standard
<input type="checkbox"/>	pic1.jpg	jpg	August 19, 2024, 17:24:09 (UTC+05:30)	44.0 KB	Standard

The screenshot shows a web browser window with a custom T-shirt order form. The URL is sanket-bucket1.s3.eu-north-1.amazonaws.com/index21.html?response-content-disposition=inline&X-Amz-Security-Token=IQoJb3jPZ2luX2VjEDwaCmV1LW5vcnRoLTEiRjBEAh... The form has several sections:

- T-shirt Customization**: Fields for Tagline on the Shirt (text input), Color (dropdown), Size (dropdown), Quantity (input: 1), and Delivery Date (date input).
- Delivery Details**: Fields for Recipient's Name, Address, Email, and Phone Number.
- Order Summary**: Total Cost (\$20.00) and Shipping Method (dropdown).
- Additional Comments**: A text area for entering additional comments or special requests.

At the bottom are 'Place Order' and 'Reset Form' buttons.



CLOUD 9 HOSTING:

AWS Cloud9 > Environments > Create environment

Create environment Info

Details

Name Limit of 60 characters, alphanumeric and unique per user.

Description – optional Limit 200 characters.

Environment type Info
Determines what the Cloud9 IDE will run on.

New EC2 instance
Cloud9 creates an EC2 instance in your account. The configuration of your EC2 instance cannot be changed by Cloud9 after creation.

Existing compute
You have an existing instance or server that you'd like to use.

AWS Cloud9 > Environments > SnehalEnv

SnehalEnv

[Delete](#) [Open in Cloud9](#)

Details [Edit](#)

Name SnehalEnv	Owner ARN  arn:aws:sts::608111999703:assumed-role/voclabs/user3402712-PATIL_SHRAVANI_ANIL	Status  Ready
Description -	Number of members 1	Lifecycle status  Created
Environment type EC2 instance		

Creating SnehalEnv. This can take several minutes. While you wait, see [Best practices for using AWS Cloud9](#).

For capabilities similar to AWS Cloud9, explore AWS Toolkits in your own IDE and AWS CloudShell in the AWS Management Console. [Find out more](#)

AWS Cloud9 > Environments

Environments (1)

Name	Cloud9 IDE	Environment type	Connection	Permission	Owner ARN
SnehalEnv	Open	EC2 instance	Secure Shell (SSH)	Owner	arn:aws:sts::608111999703:assumed-role/voclabs/user3402712=PATIL_SHRAVANI_ANIL

Go to Anything (Ctrl-P)

SnehalEnv - /home

cloud9.html

README.md

Welcome

AWS Cloud9

Welcome to your development environment

AWS Cloud9 allows you to write, run, and debug your code with just a browser. You can [tour the IDE](#), write code for [AWS Lambda](#) and [Amazon API Gateway](#), share your IDE with others in real time, and much more.

Developer Tools

Toolkit for AWS Cloud9

Getting started

Create File

Upload Files...

bash - ip-172-31-42-231.x Immediate

voclabs:~/environment \$

User details

User name

Snehal

The user name can have up to 64 characters. Valid characters: A-Z, a-z, 0-9, and + = , . @ _ - (hyphen)

Provide user access to the AWS Management Console - optional

If you're providing console access to a person, it's a best practice [to manage their access in IAM Identity Center](#).

Console password

Autogenerated password

You can view the password after you create the user.

Custom password

Enter a custom password for the user.

- Must be at least 8 characters long
- Must include at least three of the following mix of character types: uppercase letters (A-Z), lowercase letters (a-z), numbers (0-9), and symbols ! @ # \$ % ^ & * () _ + - (hyphen) = [] { } | '

Permissions options

Add user to group

Add user to an existing group, or create a new group. We recommend using groups to manage user permissions by job function.

Copy permissions

Copy all group memberships, attached managed policies, and inline policies from an existing user.

Attach policies directly

Attach a managed policy directly to a user. As a best practice, we recommend attaching policies to a group instead. Then, add the user to the appropriate group.



Get started with groups

Create a group and select policies to attach to the group. We recommend using groups to manage user permissions by job function, AWS service access, or custom permissions. [Learn more](#)

[Create group](#)

► Set permissions boundary - optional

[Cancel](#)

[Previous](#)

[Next](#)

Create user group

X

Create a user group and select policies to attach to the group. We recommend using groups to manage user permissions by job function, AWS service access, or custom permissions. [Learn more](#)

User group name

Enter a meaningful name to identify this group.

Maximum 128 characters. Use alphanumeric and '+,.,@-_ ' characters.

Permissions policies (952)



Create policy

Filter by Type

All ty... ▾

< 1 2 3 4 5 6 7 ... 48 >



Policy name



Type



Use...



Description

AdministratorAccess	AWS managed ...	Permis...	Provides full access to AWS services an...
AdministratorAcce...	AWS managed	None	Grants account administrative permis...
AdministratorAcce...	AWS managed	None	Grants account administrative permis...
AlexaForBusinessD...	AWS managed	None	Provide device setup access to AlexaFo...
AlexaForBusinessF...	AWS managed	None	Grants full access to AlexaForBusiness ...
AlexaForBusinessG...	AWS managed	None	Provide gateway execution access to A...
AlexaForBusinessLi...	AWS managed	None	Provide access to Lifesize AVS devices
AlexaForBusinessP...	AWS managed	None	Provide access to Poly AVS devices
AlexaForBusinessR...	AWS managed	None	Provide read only access to AlexaForB...
AmazonAPIGatewa...	AWS managed	None	Provides full access to create/edit/delete...

Cancel

Create user group

