

Assignment 4:

#EC2 instance is running on aws:

The screenshot shows the AWS Management Console interface for the EC2 service. The left sidebar is collapsed, and the main content area displays the 'Instances' page.

Instances (1/1) Info

Last updated 14 minutes ago

Actions ▾

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS	Public IPv4 ...	Elastic IP
ec2-assignment-4	i-0d938ac661406f24d	Running	t3.micro	Initializing	View alarms +	us-east-1c	ec2-54-224-204-60.co...	54.224.204.60	-

i-0d938ac661406f24d (ec2-assignment-4)

Filter rules

Name	Security group rule ID	Port range	Protocol	Source	Security groups	Description
-	sgr-0057f1594dfb803fe	22	TCP	0.0.0.0/0	launch-wizard-137	-
-	sgr-0727d82d64dfa94c	80	TCP	0.0.0.0/0	launch-wizard-137	-
-	sgr-0e63379d9b5e44192	443	TCP	0.0.0.0/0	launch-wizard-137	-

Outbound rules

Filter rules

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#SSH connection to the EC2 instance:

```
ashraful@instasure-dns-vm-06:~/gitlab_project/ci_cd/task_2/DevOps-Ostad/Assignments/4. Assignment$ sudo ssh -i aws_key_assignment_4.pem ubuntu@54.224.204.60
Reading state information... Done
10 packages can be upgraded. Run 'apt list --upgradable' to see them.
ubuntu@ip-172-31-20-255:~$ sudo apt install nginx -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  nginx-common
Suggested packages:
  fcgiwrap nginx-doc ssl-cert
The following NEW packages will be installed:
  nginx nginx-common
0 upgraded, 2 newly installed, 0 to remove and 10 not upgraded.
Need to get 564 kB of archives.
After this operation, 1596 kB of additional disk space will be used.
Get:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 nginx-common all 1.24.0-2ubuntu7.5 [43.4 kB]
Get:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 nginx amd64 1.24.0-2ubuntu7.5 [520 kB]
Fetched 564 kB in 0s (16.3 MB/s)
Preconfiguring packages ...
Selecting previously unselected package nginx-common.
(Reading database ... 71735 files and directories currently installed.)
Preparing to unpack .../nginx-common_1.24.0-2ubuntu7.5_all.deb ...
Unpacking nginx-common (1.24.0-2ubuntu7.5) ...
Selecting previously unselected package nginx.
Preparing to unpack .../nginx_1.24.0-2ubuntu7.5_amd64.deb ...
Unpacking nginx (1.24.0-2ubuntu7.5) ...
Setting up nginx-common (1.24.0-2ubuntu7.5) ...
Created symlink /etc/systemd/system/multi-user.target.wants/nginx.service → /usr/lib/systemd/system/nginx.service.
Setting up nginx (1.24.0-2ubuntu7.5) ...
 * Upgrading binary nginx
Processing triggers for man-db (2.12.0-4build2) ...
Processing triggers for ufw (0.36.2-6) ...
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 (oemu) binaries on this host.
ubuntu@ip-172-31-20-255:~$ sudo service nginx status
● nginx.service - A high performance web server and a reverse proxy server
   Loaded: loaded (/usr/lib/systemd/system/nginx.service; enabled; preset: enabled)
   Active: active (running) since Tue 2025-11-11 06:35:42 UTC; 18s ago
     Docs: man:nginx(8)
  Process: 1739 ExecStartPre=/usr/sbin/nginx -t -q -g daemon on; master_process on; (code=exited, status=0/SUCCESS)
  Process: 1740 ExecStart=/usr/sbin/nginx -g daemon on; master_process on; (code=exited, status=0/SUCCESS)
 Main PID: 1771 (nginx)
    Tasks: 3 (limit: 1008)
   CGroup: /system.slice/nginx.service
           ├─1771 nginx: master process
           ├─1790 nginx: worker process
           ├─1791 nginx: worker process
           └─1792 nginx: worker process
Tasks: 3 (limit: 1008)

ashraful@instasure-dns-vm-06:~/gitlab_project/ci_cd/task_2/DevOps-Ostad/Assignments/4. Assignment$
```

[OK]

Ln 54, Col 1 Spaces: 4 UTF-8 LF {} Markdown Chat quota reached

```
#Install the Nginx and running:
```

The screenshot shows a terminal session on a VM running Ubuntu 22.04 LTS (Bionic Beaver). The user has run a script named 'assignment4.sh' which performs several tasks:

- It uses AWS Key Assignment to connect to an Ubuntu 20.04 LTS instance (IP: 54.224.204.60).
- It installs Nginx on the target machine.
- It copies an 'index.html' file from the local machine to the Nginx document root on the target machine.
- It starts the Nginx service on the target machine.
- It curl's the target machine's IP address to verify the setup.

The terminal output is as follows:

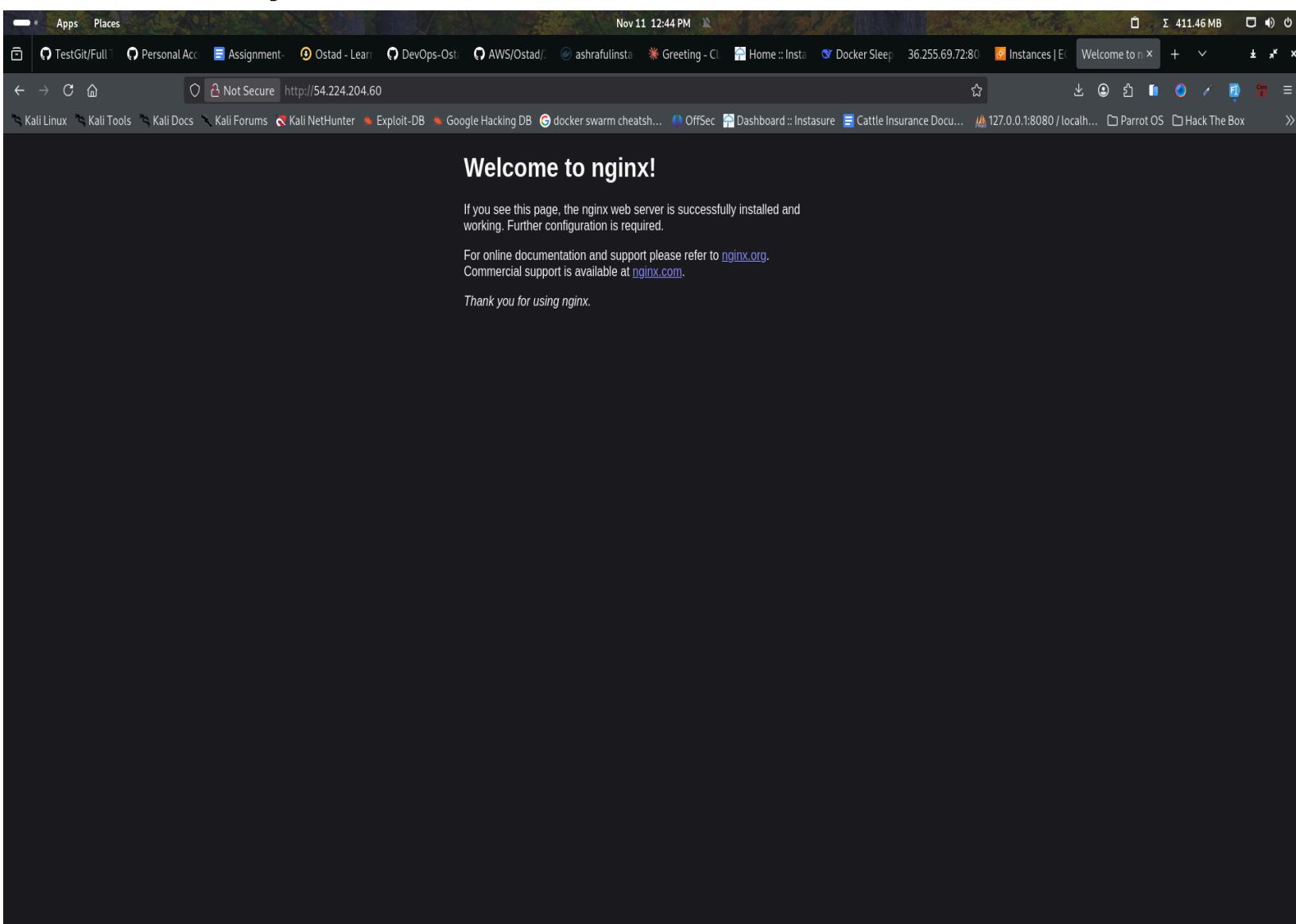
```
ashraful@instasure-dns-vm-06:~/gitlab_project/ci_cd/task_2/DevOps-Ostad/Assignments/4. Assignment$ sudo ssh -i aws_key_assignment_4.pem ubuntu@54.224.204.60
No user sessions are running outdated binaries.

No VM guests are running outdated hypervisor (qemu) binaries on this host.
ubuntu@ip-172-31-20-255:~$ sudo service nginx status
● nginx.service - A high performance web server and a reverse proxy server
  Loaded: loaded (/usr/lib/systemd/system/nginx.service; enabled; preset: enabled)
  Active: active (running) since Tue 2023-11-11 06:35:42 UTC; 185 ago
    Docs: man:nginx(8)
 Process: 1739 ExecStartPre=/usr/sbin/nginx -t -q -g daemon on; master_process on; (code=exited, status=0/SUCCESS)
 Process: 1740 ExecStart=/usr/sbin/nginx -g daemon on; master_process on; (code=exited, status=0/SUCCESS)
 Main PID: 1771 (nginx)
   Tasks: 3 (limit: 1008)
  Memory: 2.4M (peak: 5.2M)
     CPU: 27ms
    CGroup: /system.slice/nginx.service
           ├─1771 "nginx: master process /usr/sbin/nginx -g daemon on; master_process on;"
           ├─1773 "nginx: worker process"
           └─1774 "nginx: worker process"

Nov 11 06:35:42 ip-172-31-20-255 systemd[1]: Starting nginx.service - A high performance web server and a reverse proxy server...
Nov 11 06:35:42 ip-172-31-20-255 systemd[1]: Started nginx.service - A high performance web server and a reverse proxy server.
ubuntu@ip-172-31-20-255:~$ cd /usr/share/nginx/html/
ubuntu@ip-172-31-20-255:/usr/share/nginx/html$ ls
index.html
ubuntu@ip-172-31-20-255:/usr/share/nginx/html$ ls -la /usr/share/nginx/html/
total 12
drwxr-xr-x 2 root root 4096 Nov 11 06:35 .
drwxr-xr-x 3 root root 4096 Nov 11 06:35 ..
-rw-r--r-- 1 root root 615 Apr 11 2023 index.html
ubuntu@ip-172-31-20-255:/usr/share/nginx/html$ sudo ss -tlnp | grep nginx
LISTEN 0      511      0.0.0.0:80      0.0.0.0:*      users:(("nginx",pid=1774,fd=5),("nginx",pid=1773,fd=5),("nginx",pid=1771,fd=5))
LISTEN 0      511      [::]:80      [::]:*      users:(("nginx",pid=1774,fd=6),("nginx",pid=1773,fd=6),("nginx",pid=1771,fd=6))
ubuntu@ip-172-31-20-255:/usr/share/nginx/html$ curl http://localhost/
<!DOCTYPE html>
<html>
<head>
<title>Welcome to nginx!</title>
<style>
html { color-scheme: light dark; }
body { width: 35em; margin: 0 auto;
font-family: Tahoma, Verdana, Arial, sans-serif; }
</style>
</head>
<body>
<h1>Welcome to nginx!</h1>
<p>If you see this page, the nginx web server is successfully installed and working. Further configuration is required.</p>
<p>For online documentation and support please refer to
<a href="http://nginx.org/">nginx.org</a>.<br/>
Commercial support is available at
<a href="http://nginx.com/">nginx.com</a>.</p>
```

The Explorer sidebar on the right shows the project structure, including files like 'aws_key_assignment_4.pem', 'Install Software', 'README.md', and various Docker-related files.

#web browser showing the rendered index.html file:



#the bucket name and public access settings.

The screenshot shows the AWS S3 Bucket Permissions page for the bucket 'ostad-assignment-4-s3'. The top navigation bar includes links for 'Objects', 'Metadata', 'Properties', 'Permissions' (which is currently selected), 'Metrics', 'Management', and 'Access Points'. The main content area is titled 'Permissions overview' and contains sections for 'Access finding' and 'Block public access (bucket settings)'. Under 'Access finding', it says 'Access findings are provided by IAM external access analyzers. Learn more about [How IAM analyzer findings work](#)'. Below that is a link to 'View analyzer for us-east-1'. The 'Block public access (bucket settings)' section has a status of 'Off' and a link to 'Individual Block Public Access settings for this bucket'. At the bottom, the 'Bucket policy' section indicates 'No policy to display.' with a 'Copy' button. The footer of the page includes links for 'CloudShell', 'Feedback', '© 2025, Amazon Web Services, Inc. or its affiliates.', 'Privacy', 'Terms', and 'Cookie preferences'.

S3 bucket showing the upload index.html file :

The screenshot shows the AWS S3 console interface. The left sidebar has sections for General purpose buckets, Storage Lens, and Feature spotlight. The main content area displays the properties of an object named 'index.html' in a bucket named 'ostad-assignment-4-s3'. The 'Properties' tab is selected, showing details like Owner (ffd8362932f47cc3d0947e75e75bf5a019ed1a82b08ef9312f71138793427718), AWS Region (US East (N. Virginia) us-east-1), Last modified (November 11, 2025, 12:59:07 (UTC+06:00)), Size (615.0 B), Type (html), and Key (index.html). Other tabs include 'Permissions' and 'Versions'. Action buttons for 'Copy S3 URI', 'Download', 'Open', and 'Object actions' are at the top right. The bottom section shows an 'Object management overview' with a note about bucket versioning being disabled.

Nov 11 12:59 PM 432.18 MB

TestGit/F Personal Assignm... Ostad - L DevOps AWS/Ost ashrafulli Greeting Home :: Docker S 36.255.69.7 Upload o Index.h Welcome to Welcome to New Tab + Kali Linux Kali Tools Kali Docs Kali Forums Kali NetHunter Exploit-DB Google Hacking DB docker swarm cheats... OffSec Dashboard :: Instasure Cattle Insurance Docu... 127.0.0.1:8080 / localh... Parrot OS Hack The Box Account ID: 3664-0352-3501 amshuv064@gmail.com

Amazon S3 > Buckets > ostad-assignment-4-s3 > index.html

Amazon S3

General purpose buckets

- Directory buckets
- Table buckets
- Vector buckets
- Access Grants
- Access Points (General Purpose Buckets, FSx file systems)
- Access Points (Directory Buckets)
- Object Lambda Access Points
- Multi-Region Access Points
- Batch Operations
- IAM Access Analyzer for S3

Block Public Access settings for this account

▼ Storage Lens

- Dashboards
- Storage Lens groups
- AWS Organizations settings

Feature spotlight 11

▶ AWS Marketplace for S3

CloudShell Feedback

index.html Info

Properties Permissions Versions

Object overview

Owner
ffd8362932f47cc3d0947e75e75bf5a019ed1a82b08ef9312f71138793427718

AWS Region
US East (N. Virginia) us-east-1

Last modified
November 11, 2025, 12:59:07 (UTC+06:00)

Size
615.0 B

Type
html

Key
index.html

S3 URI
<https://s3://ostad-assignment-4-s3/index.html>

Amazon Resource Name (ARN)
[arn:aws:s3:::ostad-assignment-4-s3/index.html](#)

Entity tag (Etag)
[7df3d7cf3558af3f470ac7229387ef94](#)

Object URL
<https://ostad-assignment-4-s3.s3.us-east-1.amazonaws.com/index.html>

Object management overview

The following bucket properties and object management configurations impact the behavior of this object.

Bucket properties

Bucket Versioning
When enabled, multiple variants of an object can be stored in the bucket to easily recover from unintended user actions and application failures.
⚠️ Disabled

Management configurations

Replication status
When a replication rule is applied to an object the replication status indicates the progress of the operation.
-

[View replication rules](#)

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#index.html file render from the s3 on browser:

