



## **Placement Empowerment Program**

### ***Cloud Computing and DevOps Centre***

**Use Cloud CLI Tools Install the CLI for your cloud provider (e.g., AWS CLI). Use it to list resources, upload files to storage, and manage VMs.**

Name: Nevesh Gokul M J

Department: CSE



# Introduction and Overview

Cloud CLI tools, such as AWS CLI, allow users to interact with cloud services directly from the terminal, enabling automation and efficient resource management. This task involves installing the AWS CLI, configuring it with AWS credentials, and using it to perform basic operations like listing resources, uploading files to S3, and managing EC2 instances. CLI tools offer a faster and scriptable alternative to the AWS Management Console, improving productivity. By completing this task, you'll gain hands-on experience in cloud automation and resource control using command-line commands.

## Objective

The goal of this project is to:

1. Learn Cloud CLI Basics – Install and configure AWS CLI to interact with cloud resources using command-line commands.
2. Manage Cloud Resources – Use AWS CLI to list cloud resources, upload files to S3, and manage EC2 instances efficiently.
3. Enhance Automation Skills – Gain hands-on experience in automating cloud tasks, improving efficiency over manual AWS Management Console operations.

## Importance of Cloud CLI

**Hands-on Learning & Efficiency** – Cloud CLI provides direct interaction with cloud services, enabling faster and more efficient management compared to the web console.

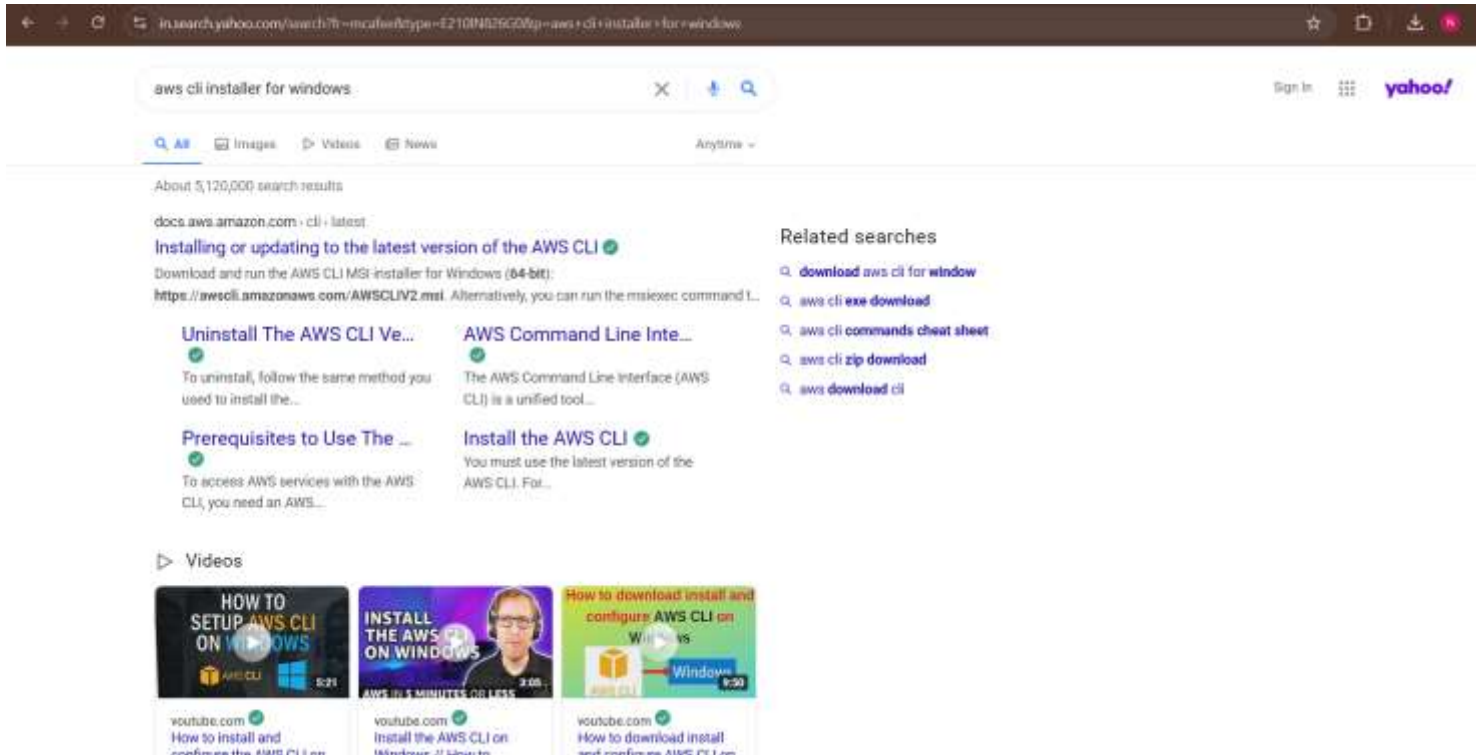
**Automation & Scripting** – It allows users to automate repetitive tasks, such as resource provisioning and deployments, improving productivity.

**Remote Cloud Management** – With CLI tools, users can manage cloud resources from any terminal, making it ideal for DevOps, remote administration, and large-scale cloud operations.

# Step-by-Step Overview

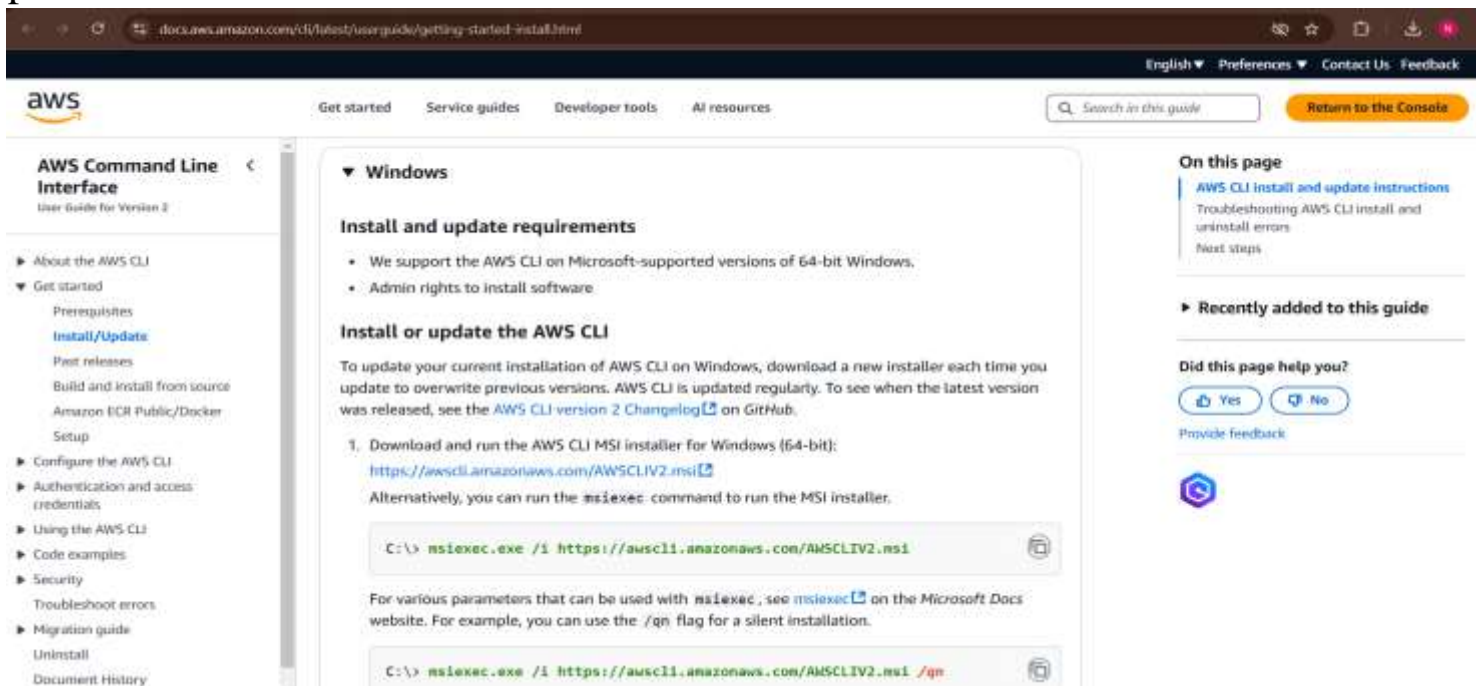
## Step1:

Search for "AWS CLI Installer for Windows" on Google and click the first link to access the official website.



## Step 2:

Click on the "Install/Update" option located on the left-hand side of the Apache Lounge website. Select the link regarding your OS, Install by using the link provided else use the *msiexec* command



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## AWS Command Line Interface

User Guide for Version 2

- About the AWS CLI
- Get started
  - Prerequisites
  - Install/Update**
  - Past releases
  - Build and install from source
  - Amazon ECR Public/Docker Setup
- Configure the AWS CLI
- Authentication and access credentials
- Using the AWS CLI
- Code examples
- Security
  - Troubleshoot errors
- Migration guide
  - Uninstall
  - Document History

To update your current installation of AWS CLI on Windows, download a new installer each time you update to overwrite previous versions. AWS CLI is updated regularly. To see when the latest version was released, see the [AWS CLI version 2 Changelog](#) on GitHub.

- Download and run the AWS CLI MSI Installer for Windows (64-bit):  
<https://awscli.amazonaws.com/AWSCLIV2.msi>  
 Alternatively, you can run the `msiexec` command to run the MSI installer.
 

```
C:\> msiexec.exe /i https://awscli.amazonaws.com/AWSCLIV2.msi
```

For various parameters that can be used with `msiexec`, see [msiexec](#) on the Microsoft Docs website. For example, you can use the `/qn` flag for a silent installation.

```
C:\> msiexec.exe /i https://awscli.amazonaws.com/AWSCLIV2.msi /qn
```

- To confirm the installation, open the **Start** menu, search for `cmd` to open a command prompt window, and at the command prompt use the `aws --version` command.
 

```
C:\> aws --version
aws-cli/2.19.1 Python/3.11.6 Windows/10 exe/AMD64 prompt/off
```

If Windows is unable to find the program, you might need to close and reopen the command prompt window to refresh the path, or follow the troubleshooting in [Troubleshooting errors for the AWS CLI](#).

Recent download history

- AWSCLIV2.msi 40.7 MB • 2 minutes ago
- Newash1 (1).pem 1.674 B • 14 hours ago
- Newash.pem 1.678 B • 15 hours ago
- Newe (2).pem 1.678 B • 15 hours ago
- New (5).pem 1.674 B • 15 hours ago

Full download history

Introducing Amazon Q. Receive guidance, get troubleshooting tips, and learn about AWS services and capabilities.

## Step 3:

Once installed, verify the installation by opening Command Prompt (cmd) or PowerShell and running **aws --version**

It should return something like

aws-cli/2.x.x Python/3.x.x Windows/x86\_64

```
Microsoft Windows [Version 10.0.22631.4751]
(c) Microsoft Corporation. All rights reserved.

C:\Users\mjnev>aws --version
aws-cli/2.23.13 Python/3.12.6 Windows/11 exe/AMD64

C:\Users\mjnev>
```

z

## Step 4:

Before using AWS CLI, you need to configure it with your AWS credentials.

Open Command Prompt and type **aws configure**

It will ask for:

AWS Access Key ID → Get it from AWS IAM > Security Credentials

AWS Secret Access Key → Get it from AWS IAM > Security Credentials

Default region name → Example: us-east-1 (Find yours in AWS Console)

Default output format → Keep it as json or press Enter for default

```
C:\Users\mjnev>aws configure
AWS Access Key ID [*****050Z]: AKIAR3HU0BDHYN3LWY4X
AWS Secret Access Key [*****/zQb]: dxzjg8QLgwZ3ynvn5Whm7npSKSPLDML2fTIGeJwb
Default region name [us-east-1]: us-east-1
Default output format [None]:
```

## Step 5:

To see all storage buckets, Type **aws s3 ls** in cmd

z

To check running EC2 instances **aws ec2 describe-instances** in cmd

```
C:\Users\mjnev>aws ec2 describe-instances
{
  "Reservations": []
}
```

## Step 6:

Create an S3 Bucket by typing **aws s3 mb s3://your-unique-bucket-name** in cmd.

```
C:\Users\mjnev>aws s3 mb s3://nevesh
make_bucket: nevesh
```

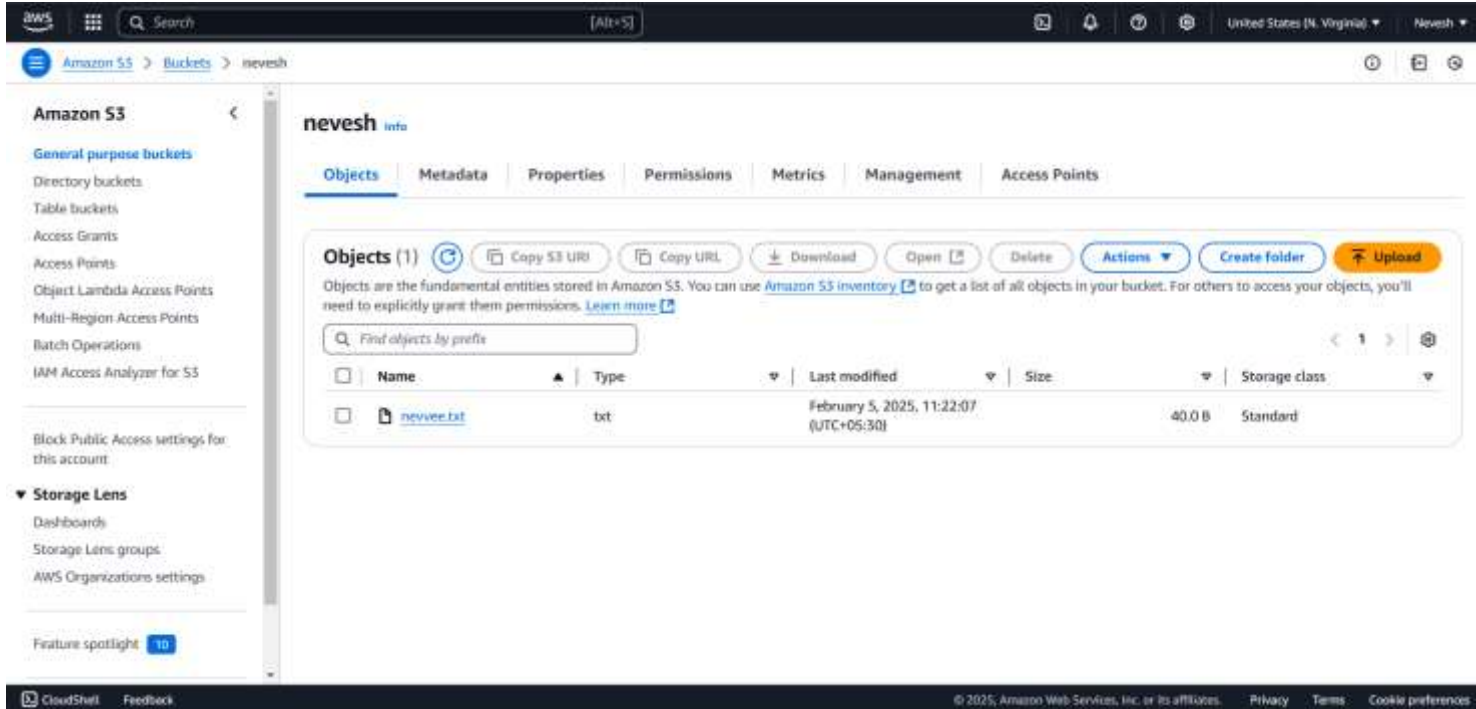
Upload a file to S3 Bucket by typing **aws s3 cp yourfile.txt s3://your-unique-bucket-name/** in cmd

```
C:\Users\mjnev>aws s3 cp "C:\Users\mjnev\Downloads\nevvee.txt" s3://nevesh
upload: Downloads\nevvee.txt to s3://nevesh/nevvee.txt
```

Amazon S3 console screenshot showing the bucket 'nevesh' in the 'US East (N. Virginia) us-east-1' region. The bucket was created on February 5, 2025, 11:16:34 (UTC+05:30). The console displays the 'General purpose buckets' tab with a table of buckets.

Name	AWS Region	IAM Access Analyzer	Creation date
nevesh	US East (N. Virginia) us-east-1	<a href="#">View analyzer for us-east-1</a>	February 5, 2025, 11:16:34 (UTC+05:30)

Z



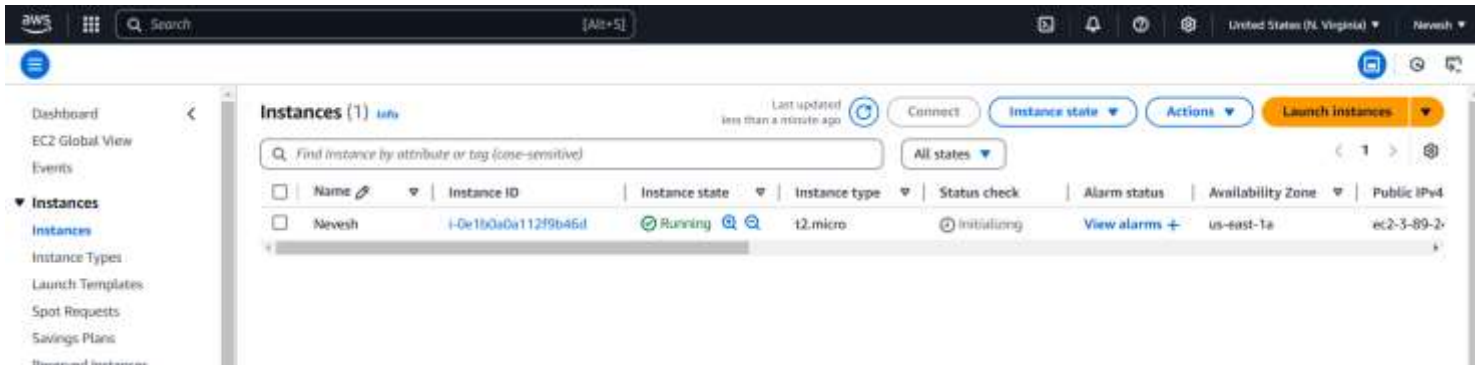
## Step 7:

To Start an EC2 Instance, Type **aws ec2 start-instances --instance-ids <INSTANCE\_ID>** in cmd

Replace <INSTANCE\_ID> with your actual instance ID

```
C:\Users\mjnev>aws ec2 start-instances --instance-ids i-0e1b0a0a112f9b46d
{
  "StartingInstances": [
    {
      "InstanceId": "i-0e1b0a0a112f9b46d",
      "CurrentState": {
        "Code": 0,
        "Name": "pending"
      },
      "PreviousState": {
        "Code": 80,
        "Name": "stopped"
      }
    }
  ]
}
```





## Expected Outcome

By completing this POC, you will:

1. ***Successful Installation & Configuration*** – AWS CLI will be installed and configured with the correct credentials, allowing seamless interaction with AWS services.
2. ***Ability to List Cloud Resources*** – You will be able to list AWS resources such as S3 buckets, EC2 instances, and IAM users using CLI commands.
3. ***Successful Installation & Configuration*** – AWS CLI will be installed and configured with the correct credentials, allowing seamless interaction with AWS services.
4. ***Ability to List Cloud Resources*** – You will be able to list AWS resources such as S3 buckets, EC2 instances, and IAM users using CLI commands.
5. ***Successful Installation & Configuration*** – AWS CLI will be installed and configured with the correct credentials, allowing seamless interaction with AWS services.
6. ***Ability to List Cloud Resources*** – You will be able to list AWS resources such as S3 buckets, EC2 instances, and IAM users using CLI commands.
7. ***Successful Installation & Configuration*** – AWS CLI will be installed and configured with the correct credentials, allowing seamless



interaction with AWS services.

8. ***Ability to List Cloud Resources*** – You will be able to list AWS resources such as S3 buckets, EC2 instances, and IAM users using CLI commands.
9. ***File Management in S3*** – You will gain hands-on experience in uploading, downloading, and managing files in Amazon S3 using the CLI.
10. ***EC2 Instance Control*** – You will learn how to start, stop, and reboot EC2 instances from the command line, improving your cloud management skills.
11. ***Improved Automation Skills*** – By using CLI instead of the AWS Console, you will develop automation capabilities essential for DevOps and cloud computing.