Placement Empowerment Program

Cloud Computing and DevOps Centre

Write a Shell Script to Manage Cloud ResourcesCreate a script to launch, stop, and terminate cloud VMs using the CLI

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Introduction and Overview

Cloud computing provides a flexible and scalable way to manage virtual machines (VMs) in the cloud. This shell script automates the management of **AWS EC2 instances** using the AWS CLI, allowing users to easily launch, stop, and terminate instances from the command line. Instead of navigating through the AWS Console, users can execute this script to create a new instance by specifying the **AMI ID, instance type, key pair, and security group**, or manage existing instances by stopping or terminating them.

Objective

The objective of this shell script is to automate the management of **AWS EC2 instances** using the **AWS Command Line Interface (CLI)**. The script provides a simple command-line interface to:

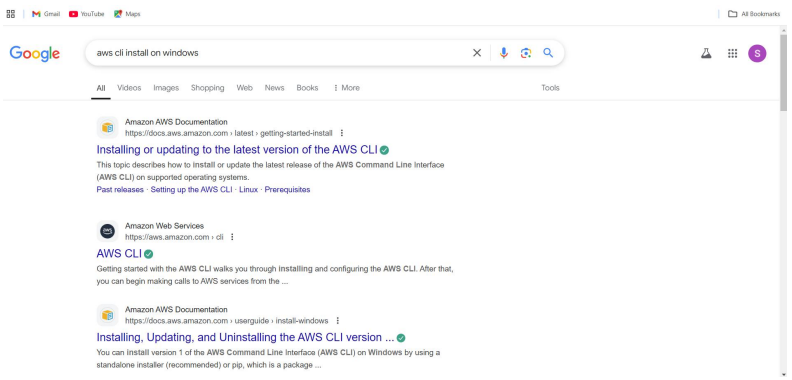
- **Launch a new EC2 instance** by specifying the AMI ID, instance type, key pair, and security group.
- **Stop a running EC2 instance** to save costs when not in use.
- **Terminate an EC2 instance** when it is no longer needed.

By automating these operations, the script enhances efficiency, reduces manual effort, and simplifies cloud resource management for developers, system administrators, and DevOps teams

Step-by-Step Overview

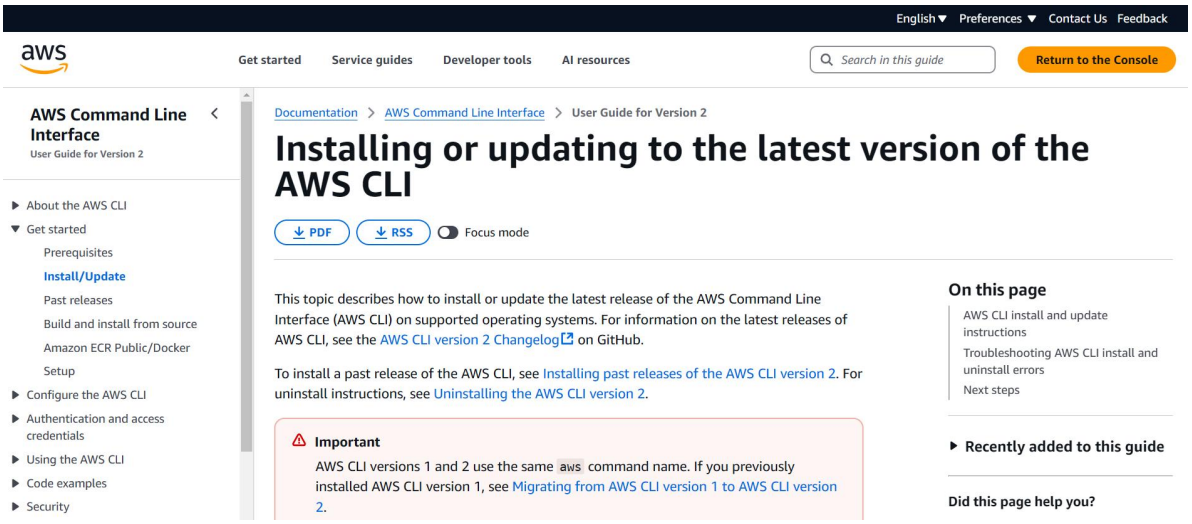
Step1:

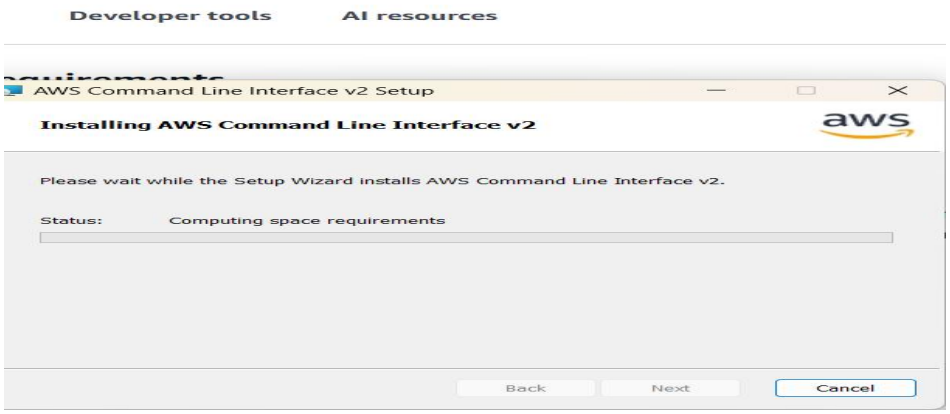
Search for "AWS CLI Installer for Windows" on Google



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





Step 3:

configure it with your AWS credentials.

Open Command Prompt and type **aws configure**

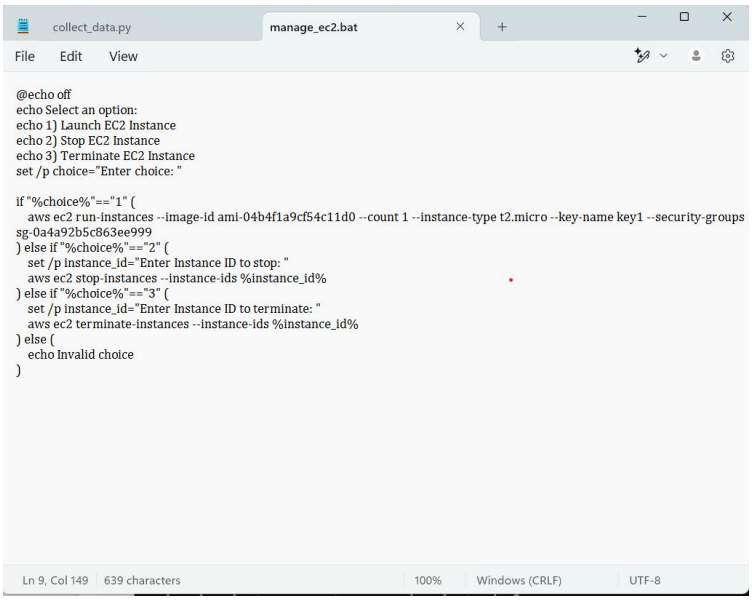
```
C:\Users\shalni>aws configure
AWS Access Key ID [****************QSEP]: AKIASVQKHS4TYUJTSROH
AWS Secret Access Key [****************fVF7]: 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
Default region name [us-east-1]: us-east-1
Default output format [json]: json
```

Step 4:

Create the script:

Open **Notepad**

Save as manage_ec2.bat



Step 5:

CopyEditNavigate to the folder where you saved manage_ec2.bat:

```
C:\Users\shalni\OneDrive>cd C:\Users\shalni\OneDrive\Desktop
```

Step 6:

Run the script:
cmd
manage_ec2.bat

Step 7:

Expected Outcome

When the script is executed, it prompts the user to choose an action: launching, stopping, or terminating an EC2 instance. If the user selects the option to **launch** an instance, they are asked to provide the AMI ID, instance type, key pair name, and security group ID. Upon successful execution, the script returns a confirmation message along with the instance details, including its **Instance ID** and **state**. If the user chooses to **stop** an instance, they must enter the **Instance ID**, and the script will return a message indicating that the instance is stopping. Similarly, selecting the **terminate** option prompts the user for an **Instance ID**, and upon execution, the script confirms that the instance is being terminated. This structured output ensures clear and efficient management of cloud resources directly from the command line.