

➔ Need python, python-index package, then we can download awscli

The screenshot shows the AWS Command Line Interface User Guide for Version 1 on the AWS website. The left sidebar contains a navigation menu with links to 'About the AWS CLI', 'Installing the AWS CLI' (selected), 'Configuring the AWS CLI', 'Using the AWS CLI', 'Using the AWS CLI with AWS Services', 'Security', 'Troubleshooting Errors', and 'Document History'. The main content area is titled 'Install and update the AWS CLI version 1 using pip'. It includes a list of prerequisites, a note about using appropriate quoting rules, and a series of terminal commands: `$ source ~/.bash_profile`, `$ pip3 --version` (showing pip 19.2.3), `$ pip3 install awscli --upgrade --user`, and `$ pip3 install awscli==1.16.312 --upgrade --user`. A 'Note' box at the bottom states: 'Use appropriate quoting rules for your terminal. In order to use the = character, you may need to use single or double quotes.'

<https://docs.aws.amazon.com/cli/v1/userguide/install-linux.html>

Install PIP

```
ubuntu@ip-172-31-31-164:~$ python3 --version
Python 3.8.10
ubuntu@ip-172-31-31-164:~$ curl -O https://bootstrap.pypa.io/get-pip.py
% Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
                                 Dload  Upload   Total   Spent    Left  Speed
100 2596k  100 2596k    0     0  26.4M      0  0:00:01  0:00:01 --:--:-- 26.4M
ubuntu@ip-172-31-31-164:~$
```

```
ubuntu@ip-172-31-31-164:~$ python3 get-pip.py --user
Collecting pip
  Downloading pip-22.0.4-py3-none-any.whl (2.1 MB)
    2.1/2.1 MB 27.3 MB/s eta 0:00:00
Collecting wheel
  Downloading wheel-0.37.1-py2.py3-none-any.whl (35 kB)
Installing collected packages: wheel, pip
WARNING: The script wheel is installed in '/home/ubuntu/.local/bin' which is not on PATH.
Consider adding this directory to PATH or, if you prefer to suppress this warning, use --no-warn-script-location.
WARNING: The scripts pip, pip3 and pip3.8 are installed in '/home/ubuntu/.local/bin' which is not on PATH.
Consider adding this directory to PATH or, if you prefer to suppress this warning, use --no-warn-script-location.
Successfully installed pip-22.0.4 wheel-0.37.1
```

export PATH=~/.local/bin:\$PATH ➔ /usr/local/bin

```
ubuntu@ip-172-31-31-164:~$ export PATH=~/.local/bin:$PATH
ubuntu@ip-172-31-31-164:~$
```

Source- source ~/.bash\_profile ➔ source /etc/profile

```
root@ip-172-31-31-164:~# source /etc/profile
root@ip-172-31-31-164:~#
```

Pip --version

```
root@ip-172-31-21-127:~# pip --version
pip 22.0.4 from /usr/local/lib/python3.8/dist-packages/pip (python 3.8)
root@ip-172-31-21-127:~#
```

Install awscli { pip3 install awscli --upgrade --user }

```
root@ip-172-31-21-127:~# pip3 install awscli
Collecting awscli
  Downloading awscli-1.22.98-py3-none-any.whl (3.8 MB)
    3.8/3.8 MB 42.9 MB/s eta 0:00:00
Collecting rsa<4.8,>=3.1.2
  Downloading rsa-4.7.2-py3-none-any.whl (34 kB)
Requirement already satisfied: colorama<0.4.4,>=0.2.5 in /usr/lib/python3/dist-packages (from awscli) (0.4.3)
Collecting s3transfer<0.6.0,>=0.5.0
  Downloading s3transfer-0.5.2-py3-none-any.whl (79 kB)
    79.5/79.5 KB 9.0 MB/s eta 0:00:00
Collecting docutils<0.16,>=0.10
  Downloading docutils-0.15.2-py3-none-any.whl (547 kB)
    547.0/547.0 KB 42.5 MB/s eta 0:00:00
Requirement already satisfied: PyYAML<5.5,>=3.10 in /usr/lib/python3/dist-packages (from awscli) (5.3.1)
Collecting botocore==1.24.43
  Downloading botocore-1.24.43-py3-none-any.whl (8.7 MB)
    8.7/8.7 MB 46.9 MB/s eta 0:00:00
Collecting jmespath<2.0.0,>=0.7.1
  Downloading jmespath-1.0.0-py3-none-any.whl (23 kB)
Requirement already satisfied: urllib3<1.27,>=1.25.4 in /usr/lib/python3/dist-packages (from botocore==1.24.43->awscli) (1.25.8)
Collecting python-dateutil<3.0.0,>=2.1
  Downloading python_dateutil-2.8.2-py2.py3-none-any.whl (247 kB)
    247.1/247.1 KB 33.5 MB/s eta 0:00:00
Requirement already satisfied: pyasn1>=0.1.3 in /usr/lib/python3/dist-packages (from rsa<4.8,>=3.1.2->awscli) (0.4.2)
Requirement already satisfied: six>=1.5 in /usr/lib/python3/dist-packages (from python-dateutil<3.0.0,>=2.1->botocore==1.24.43->awscli) (1.14.0)
Installing collected packages: rsa, python-dateutil, jmespath, docutils, botocore, s3transfer, awscli
Successfully installed awscli-1.22.98 botocore-1.24.43 docutils-0.15.2 jmespath-1.0.0 python-dateutil-2.8.2 rsa-4.7.2 s3transfer-0.5.2
WARNING: Running pip as the 'root' user can result in broken permissions and conflicting behaviour with the system package manager. It is recommended to use a virtual environment instead: https://pip.pypa.io/warnings/venv
root@ip-172-31-21-127:~#
```

Aws iam help

aws iam list-users

Create s3 full access role

Attach role to the instance...

To see list of users in table format

➔ Aws configure ➔ table

```
root@ip-172-31-21-127:~# aws iam list-users
-----
                         ListUsers
-----
+-----+-----+-----+-----+-----+-----+
| Arn                                         | CreateDate | PasswordLastUsed | Path | UserId | Username |
+-----+-----+-----+-----+-----+-----+
| arn:aws:iam::829912339674:user:jarvis      | 2022-03-21T04:53:21Z | 2022-04-20T02:36:03Z | / | AIDA4C0VBKTN0QJ8QZZ4K | jarvis |
| arn:aws:iam::829912339674:user:user1      | 2022-04-12T08:55:41Z | | / | AIDA4C0VBKTN625TCWA3A | user1 |
+-----+-----+-----+-----+-----+-----+
root@ip-172-31-21-127:~#
```

## Aws iam create-user --user-name user2

```
root@ip-172-31-21-127:~# aws iam create-user --user-name user2
```

CreateUser				
User				
Arn	CreateDate	Path	UserId	UserName
arn:aws:iam::829912339674:user/user2	2022-04-20T06:00:29Z	/	AIDA4C0VBKTNDZC5GYCPC	user2

```
root@ip-172-31-21-127:~# aws iam list-users
```

ListUsers					
Users					
Arn	CreateDate	PasswordLastUsed	Path	UserId	UserName
arn:aws:iam::829912339674:user/jarvis	2022-03-21T04:53:21Z	2022-04-20T02:36:03Z	/	AIDA4C0VBKTNDZC5GYCPC	jarvis
arn:aws:iam::829912339674:user/user1	2022-04-12T08:55:41Z		/	AIDA4C0VBKTNDZC5GYCPC	user1
arn:aws:iam::829912339674:user/user2	2022-04-20T06:00:29Z		/	AIDA4C0VBKTNDZC5GYCPC	user2

```
root@ip-172-31-21-127:~#
```

## Aws iam create-group - -group-name AWS\_B41

```
root@ip-172-31-21-127:~# aws iam create-group --group-name CLOUD-B41
```

CreateGroup				
Group				
Arn	CreateDate	GroupId	GroupName	Path
arn:aws:iam::829912339674:group/CLOUD-B41	2022-04-20T06:03:17Z	AGPA4C0VBKTNGEH660IAF	CLOUD-B41	/

```
root@ip-172-31-21-127:~#
```

## aws iam list-groups

```
root@ip-172-31-21-127:~# aws iam list-groups
```

ListGroups				
Groups				
Arn	CreateDate	GroupId	GroupName	Path
arn:aws:iam::829912339674:group/Administrators_Group	2022-03-21T05:00:13Z	AGPA4C0VBKTNGEH660IAF	Administrators_Group	/
arn:aws:iam::829912339674:group/CLOUD-B41	2022-04-20T06:03:17Z	AGPA4C0VBKTNGEH660IAF	CLOUD-B41	/

```
root@ip-172-31-21-127:~# ^C
root@ip-172-31-21-127:~#
```

## Aws iam help {HELP}

aws iam add-user-to-group --group-name CLOUD-B41 - - user-name user2 → user added

## aws iam list-groups-for-user --user-name user2

```
root@ip-172-31-21-127:~# aws iam list-groups-for-user --user-name user2
```

ListGroupsForUser				
Groups				
Arn	CreateDate	GroupId	GroupName	Path
arn:aws:iam::829912339674:group/CLOUD-B41	2022-04-20T06:03:17Z	AGPA4C0VBKTNGEH660IAF	CLOUD-B41	/

```
root@ip-172-31-21-127:~#
```

## Create IAM \* full action >>

### Step 1: Select Policy Type

A Policy is a container for permissions. The different types of policies you can create are an [IAM Policy](#), an [S3 Bucket Policy](#), an [SNS Topic Policy](#), a [VPC Endpoint Policy](#), and an [SQS Queue Policy](#).

Select Type of Policy IAM Policy

### Step 2: Add Statement(s)

A statement is the formal description of a single permission. See [a description of elements](#) that you can use in statements.

Effect ☒ Allow ☐ Deny

AWS Service Amazon S3 ☐ All Services (\*)

Use multiple statements to add permissions for more than one service.

Actions -- Select Actions -- ☐ All Actions (\*)

Amazon Resource Name (ARN)

ARN should follow the following format: `arn:aws:s3:::${BucketName}/${KeyName}`.  
Use a comma to separate multiple values.

[Add Conditions \(Optional\)](#)

Add Statement

You added the following statements. Click the button below to Generate a policy.

Effect	Action	Resource	Conditions
Allow	*	*	None

### Step 3: Generate Policy

A *policy* is a document (written in the [Access Policy Language](#)) that acts as a container for one or more statements.

Generate Policy [Start Over](#)

Copy cli and paste in awscli →

Vim policy.py {we can create policy file copy & paste } need json code

```
"Version": "2012-10-17",
"Statement": [
  {
    "Sid": "Stmt1650437286818",
    "Action": "*",
    "Effect": "Allow",
    "Resource": "*"
  }
]
```

## How to create policy via aws cli

aws iam create-policy --policy-name jarvis\_S3\_Full --policy-document file://policy.py

```
root@ip-172-31-21-127:~# vim policy.py
root@ip-172-31-21-127:~# aws iam create-policy --policy-name jarvis_S3_Full --policy-document file://policy.py
{
  "Policy": {
    "Arn": "arn:aws:iam::829912339674:policy/jarvis_S3_Full",
    "AttachmentCount": 0,
    "CreateDate": "2022-04-20T06:50:22Z",
    "DefaultVersionId": "v1",
    "IsAttachable": true,
    "Path": "/",
    "PermissionsBoundaryUsageCount": 0,
    "PolicyId": "ANPA4C0VBKTNMZV02Q6A3",
    "PolicyName": "jarvis_S3_Full",
    "UpdateDate": "2022-04-20T06:50:22Z"
  }
}
```

```
root@ip-172-31-21-127:~# aws iam create-policy --policy-name jarvis_S3_Full --policy-document file://policy.py
{
  "Policy": {
    "Arn": "arn:aws:iam::829912339674:policy/jarvis_S3_Full",
    "AttachmentCount": 0,
    "CreateDate": "2022-04-20T06:50:22Z",
    "DefaultVersionId": "v1",
    "IsAttachable": true,
    "Path": "/",
    "PermissionsBoundaryUsageCount": 0,
    "PolicyId": "ANPA4C0VBKTNMZV02Q6A3",
    "PolicyName": "jarvis_S3_Full",
    "UpdateDate": "2022-04-20T06:50:22Z"
  }
}
root@ip-172-31-21-127:~# ^C
root@ip-172-31-21-127:~# aws iam attach-group-policy --group-name CLOUD-B41 --policy-arn arn:aws:iam::829912339674:policy/jarvis_S3_Full
```

.....

aws iam attach-group-policy --group-name CLOUD-B41 --policy-arn  
arn:aws:iam::829912339674:policy/jarvis\_S3\_Full

.....

.... policy attached to the group, we can on console or cli through

To show attached group policies→

.....

aws iam list-attached-group-policies --group-name CLOUD-B41

```

root@ip-172-31-21-127:~# aws iam list-attached-group-policies --group-name CLOUD-B41
-----
|                               ListAttachedGroupPolicies                               |
|-----|-----|
|                               AttachedPolicies                               |
|-----|-----|
| PolicyArn                                | PolicyName                                |
|-----|-----|
| arn:aws:iam::829912339674:policy/jarvis_S3_Full | jarvis_S3_Full |
|-----|-----|
root@ip-172-31-21-127:~# ^C
root@ip-172-31-21-127:~# ^C
root@ip-172-31-21-127:~# █

```

## 1. Create Instance through aws cli

IAM > Roles > Jarvis-cli-role

**Jarvis-cli-role** Delete

Allows EC2 instances to call AWS services on your behalf.

**Summary** Edit

Creation date April 20, 2022, 11:24 (UTC+05:30)	ARN arn:aws:iam::829912339674:role/Jarvis-cli-role	Instance profile ARN arn:aws:iam::829912339674:instance-profile/Jarvis-cli-role
Last activity None	Maximum session duration 1 hour	

**Permissions** | Trust relationships | Tags | Access Advisor | Revoke sessions

**Permissions policies (2)** ↻ Simulate Remove Add permissions ▼

You can attach up to 10 managed policies.

Filter policies by property or policy name and press enter

<input type="checkbox"/>	Policy name ↗	Type	Description
<input type="checkbox"/>	AmazonEC2FullAccess	AWS managed	Provides full access to Amazon EC2 via the AWS Management Console.
<input type="checkbox"/>	IAMFullAccess	AWS managed	Provides full access to IAM via the AWS Management Console.

➔ Instance is availability zone specific

➔ Aws ec2 run-instances help

```

root@ip-172-31-21-127:~# aws ec2 run-instances --image-id ami-04505e74c0741db8d --instance-type t2.micro --key-name jarvis_privatekey --security-group-ids sg-0a32e0d27189d1f22 --count 2 --region us-east-1
-----
|                               RunInstances                               |
|-----|-----|
| OwnerId                                | 829912339674 |
| ReservationId                          | r-05b52e31d7a6326ab |
|-----|-----|
|                               Instances                               |
|-----|-----|
| AmiLaunchIndex                          | 0 |
| Architecture                            | x86_64 |
| ClientToken                             | 35d6fc52-c816-4bef-917a-8c53eacfe6ed |
| EbsOptimized                            | False |
| EnaSupport                              | True |
| Hypervisor                              | xen |
| ImageId                                 | ami-04505e74c0741db8d |
| InstanceId                              | i-0b6ab4a761f037aab |
| InstanceType                            | t2.micro |
| KeyName                                 | jarvis_privatekey |
| LaunchTime                              | 2022-04-20T08:46:01.000Z |
| PrivateDnsName                          | ip-172-31-0-98.ec2.internal |
| PrivateIpAddress                        | 172.31.0.98 |
| PublicDnsName                           | |
| RootDeviceName                          | /dev/sda1 |
| RootDeviceType                          | ebs |
| SourceDestCheck                          | True |
| StateTransitionReason                   | |
| SubnetId                                | subnet-001bb7822cb76bee3 |
| VirtualizationType                      | hvm |
| VpcId                                    | vpc-0d38f6e75bce4c3e6 |
|-----|-----|

```

aws ec2 run-instances --image-id ami-04505e74c0741db8d --instance-type t2.micro --key-name jarvis\_privatekey --security-group-ids sg-0a32e0d27189d1f22 --count 2 --region us-east-1

➔ For terminating we have to give instance name

aws ec2 stop-instances --instance-id i-0b2ae22f70f649d09

```
root@ip-172-31-21-127:~# aws ec2 stop-instances --instance-id i-0b2ae22f70f649d09
{
  "StopInstances": {
    "StoppingInstances": [
      {
        "InstanceId": "i-0b2ae22f70f649d09",
        "CurrentState": {
          "Code": 64,
          "Name": "stopping"
        },
        "PreviousState": {
          "Code": 16,
          "Name": "running"
        }
      }
    ]
  }
}
```

aws ec2 terminate-instances --instance-id i-0b2ae22f70f649d09

```
root@ip-172-31-21-127:~# aws ec2 terminate-instances --instance-id i-0b2ae22f70f649d09
{
  "TerminateInstances": {
    "TerminatingInstances": [
      {
        "InstanceId": "i-0b2ae22f70f649d09",
        "CurrentState": {
          "Code": 48,
          "Name": "terminated"
        },
        "PreviousState": {
          "Code": 80,
          "Name": "stopped"
        }
      }
    ]
  }
}
```