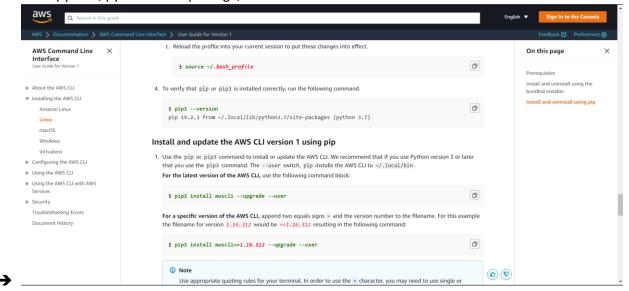➔ Need python, python-index package, then we can download awscli

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

Install PIP

export PATH=~/.local/bin:$PATH → /usr/bin

Source- source ~/.bash_profile

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:~#
```

Intsall 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-p
ackages (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)
                                     547.6/547.6 KB 42.5 MB/s eta 0:00:00
Requirement already satisfied: PyYAML<5.5,>=3.10 in /usr/lib/python3/dist-packag
es (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-pa
ckages (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)
                                     247.7/247.7 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, botocor
e, 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 acess role

Attach role to the instance…

To see list os users in table formate

➔ Aws configure ➔ table

```
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 |   /    | AIDA4C0VBKTN0QJBQZZ4K        | jarvis    ||
||  arn:aws:iam::829912339674:user/user1  | 2022-04-12T08:55:41Z |                      |   /    | AIDA4C0VBKTNG2STCWA3A        | 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 |  /   | AIDA4C0VBKTN0QJBQZZ4K | jarvis ||
||  arn:aws:iam::829912339674:user/user1  | 2022-04-12T08:55:41Z |                     |  /   | AIDA4C0VBKTNG2STCWA3A | 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**

```
3. 54.172.205.133 (ubuntu)
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 | AGPA4C0VBKTNGEH66QIAF | CLOUD-B41 |  /   ||
|+------------------------------------+---------------------+--------------------+-----------+------+|
root@ip-172-31-21-127:~#
```

aws iam list-groups

```
3. 54.172.205.133 (ubuntu)
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 | AGPA4C0VBKTNFYQBCM3DC | Administrators_Group |  /   ||
||  arn:aws:iam::829912339674:group/CLOUD-B41 | 2022-04-20T06:03:17Z | AGPA4C0VBKTNGEH66QIAF | 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 **abhi** → **user added**

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

```
3. 54.172.205.133 (ubuntu)
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 | AGPA4C0VBKTNGEH66QIAF | 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

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
-------------------------------------------------------------------------------------
|                                  CreatePolicy                                       |
+------------------------------------------------------------------------------------+
||                                    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:~#
```

```
root@ip-172-31-21-127:~# aws iam create-policy --policy-name jarvis_S3_Full --policy-document file://policy.py
-------------------------------------------------------------------------------------
|                                  CreatePolicy                                       |
+------------------------------------------------------------------------------------+
||                                    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
```

……..

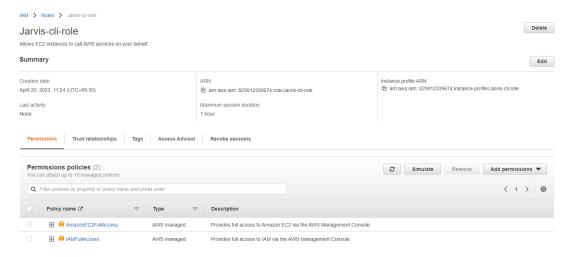aws iam attach-group-policy --group-name CLOUD-B41 --policy-arn arn:aws:iam::829912339674:policy/jarvis_S3_Full

………

…. 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

Jarvis-cli-role
Allows EC2 instances to call AWS services on your behalf.

Delete

Summary

Edit

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

Permissions Trust relationships Tags Access Advisor Revoke sessions

Permissions policies (2)
You can attach up to 10 managed policies.

🔄 Simulate Remove Add permissions ▼

Filter policies by property or policy name and press enter

< 1 > ⚙

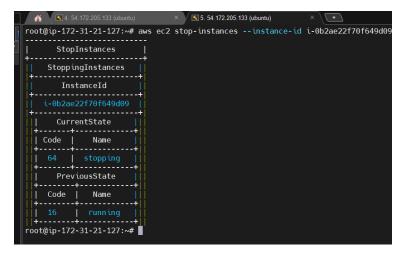|	Policy name	Type	Description
☐	AmazonEC2FullAccess	AWS managed	Provides full access to Amazon EC2 via the AWS Management Console.
☐	IAMFullAccess	AWS managed	Provides full access to IAM via the AWS Management Console.

➔ **Instance is availability zone specific**

➔ Aws ec2 run-instances **help**

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

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  |    Name     |||
||+-------+------------+||
|||  48   |  terminated |||
||+-------+------------+||
|||      PreviousState   |||
||+--------+------------+||
||| Code   |    Name     |||
||+--------+------------+||
|||  80    |   stopped   |||
||+--------+------------+||
root@ip-172-31-21-127:~#
```