**AWS CLI** (Command line Interface)

------------------------------------------------

To connect from CLI, we need to provide Access Keys and secret key.

Observation, in IAM dashboard, root access keys are deleted!!!

Generation of root access keys

-----------------------------------------

Under Quick Links --------> My access key

Create new Access key

Access Key ID: AKIA4VBG4ICF5YW46TVD

Secret Access Key: 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

As keys are ready, we can access to AWS from CLI

We need to download and install AWS CLI tool.

Search "Aws cli tool for windows" in google

select the 1st link (docs.amazon.com)

select " Download the AWS CLI MSI installer for windows 64 bit"

download and run the file.

Once the CLI is installed, we can see it in control panel -- uninstall program

We can see "AWS Command line interface" (Just observation)

+++++++++=

**Open command prompt**

* aws configure

AWS access key ID [\*\*\*\*\*]: enter access key ID from file downloaded

AWS secret Access key [\*\*\*]: enter secret key ID from file downloaded

Default region name: ap-south-1

Note: ap-south-1 (Is nothing but region name of mumbai.

We can get this information from google)

Default region is Mumbai

Default output format : text

We get the prompt. ( We have logged in )

>

+++++++++++++++++++++++

From the console, create 2 buckets.

We can see the list of buckets from command line

search in google " aws s3 commands"

(Note: we do not need to remember commands)

under available commands

select ls (open in new window)

under Examples

**aws s3 ls**

Run the command

We can see the buckets!!!

++++++++++++++

under available commands

select mb (open in new window) (mb - make bucket)

Under Examples

aws s3 mb s3://mybucket (mybucket is the name)

Run the command

We can see the new bucket in console!!!

+++++++++++++++++++

I want to upload the file to the bucket

under available commands

select cp (open in new window) (mb - make bucket)

copying the local file to S3

aws s3 cp test.txt s3://mybucket7654376

(test.txt should be available in current path)

We can see the file available in the bucket in console.

++++++++++++++++++

Creating user from command line

--------------------------------

Search in google " aws iam commands"

Available commands

click on create-user

Under Examples

To create an IAM user

> aws iam create-user --user-name hari

copy and paste

Now, user is created from the command line.

We can also check from console.

++++++++++

We have 1000's of commands in AWS

Most of the operations we can also do it from CLI

We do not need to remember the commands

We have experienced AWS CLI from windows machine.

++++++++++

++++++++++

Let’s learn how can we work with AWS CLI on linux?

Let’s create a new EC2 machine of linux

Services --->EC2 --> Amazon linux --Next --> Next

Security group (open SSH and HTTP) -- review and launch-> Launch.

Connect to machine using putty

Now, we need to install AWS CLI tool on linux

Note: All EC2 machine comes with AWS CLI installed on it.

so, we do need to install AWS CLI on the machine, which we have created.

$ sudo su

# yum update -y

# aws configure

AWS access key ID [\*\*\*\*\*]: enter access key ID from file downloaded

AWS secret Access key [\*\*\* ]: enter secret key ID from file downloaded

Default region name :ap-south-1

Note: ap-south-1

Default output format : just hit enter

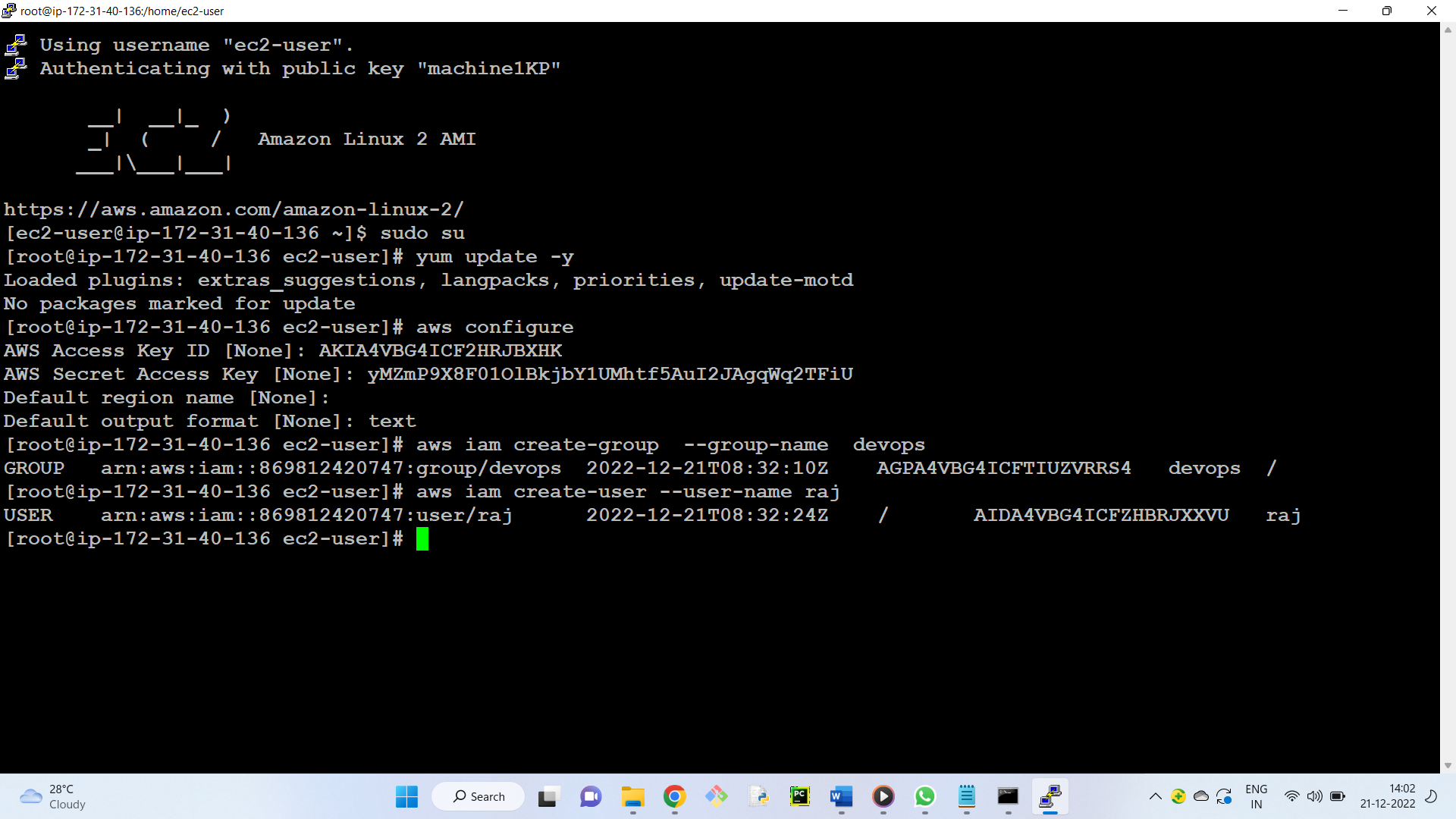
# Let’s create group

--------------------

# aws iam create-group --group-name devops

Let’s create user

# aws iam create-user --user-name raj



(We can verify users and group from console)

++++++++++++

++++++++++++

IAM Roles

--------------

Role is replacement of credentials.

**Step 1:** Creating role

------------------

source of the role is EC2 and destination as S3FullAccess

How to create role?

IAM Dashboard

roles --> create role

Select EC2 (source) ---> Next permissions

select check box AmazonS3FullAccess (policy name) ---> Next: Tags

Next --> Role name: Myrole\_Ec2-S3 ---> Create role

**Step 2:** Launch EC2 Machine and attach role to the machine

Services -- Ec2 --> Launch instance

In Step 3: IAM Role: EC2-admin-access (Select our role name)

Next: Add Storage ---> Security (open SSH and HTTP) --> Review and launch

download key pair --> View instances

Connect to the machine using putty

-----------------------------------------------

As we have attached role to EC2 machine

we do not require aws configure commands,

we do not require access key

we do not require secret key

$ sudo su

# yum update -y

# aws s3 ls

We see the list of all the buckets.

Let’s create user

----------------------

# aws iam create-user --user-name amit

Is it possible?

An error occurred ( AccessDenied )

Can we see the list of buckets

# aws s3 ls

Yes!!

Now, I want to give IAM Access also

select our role -- > Attach policies --> search for iam

Select check box IAMFullAccess -- Attach policy

Now, our role is having two policies

So, can we create new users now

# aws iam create-user --user-name test

Yes!!

++++++++

I want to detach the role from EC2 machine

Select the EC2 machine --> Actions --> Instance settings

Attach/Replace IAM Role ---> IAM Role - No Role

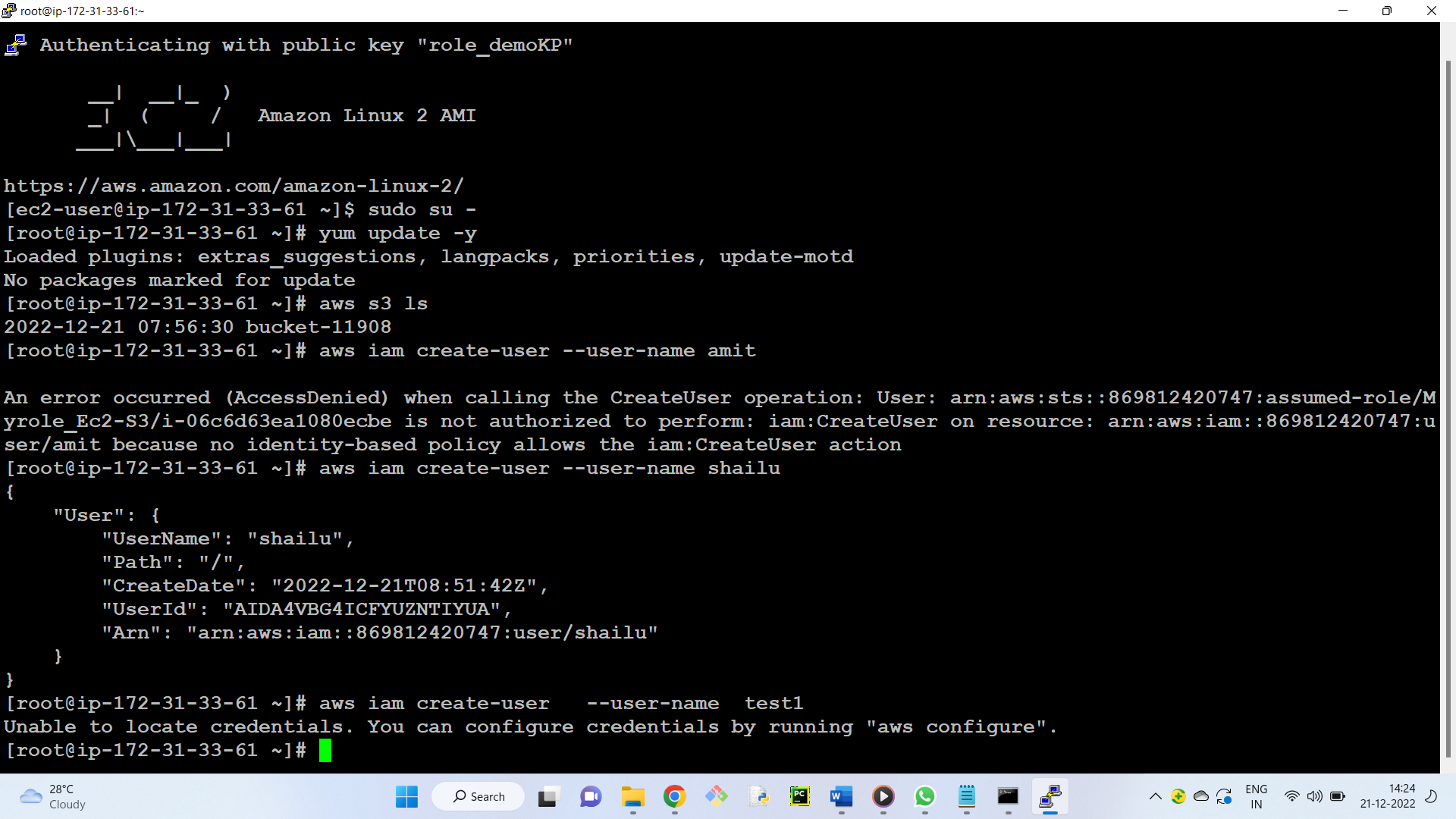
Apply --> Yes, Detach --> Close

Now,

If you try to create new user

# aws iam create-user --user-name test1

Unable to locate credentials.



Now, let’s attach role to EC2 machine again

---------------------------------------------

Select the EC2 machine --> Actions --> Instance settings

Attach/Replace IAM Role ---> IAM Role - Ec2-admin-access

Apply --> Close

Now, create user works

# aws iam create-user --user-name test1

So, Roles are replacement of credentials!!

Note: Roles can be attached to EC2 machines only.

Not to our personal laptops.

Deletion steps

--------------------

1) Delete root access Key

Manage security credentials --> Continue to security credentials-->

Access Keys --> Delete -- Yes

2) Delete all groups

3) Delete all users

4) Delete IAM role

5) Delete buckets

5) Delete EC2 machines