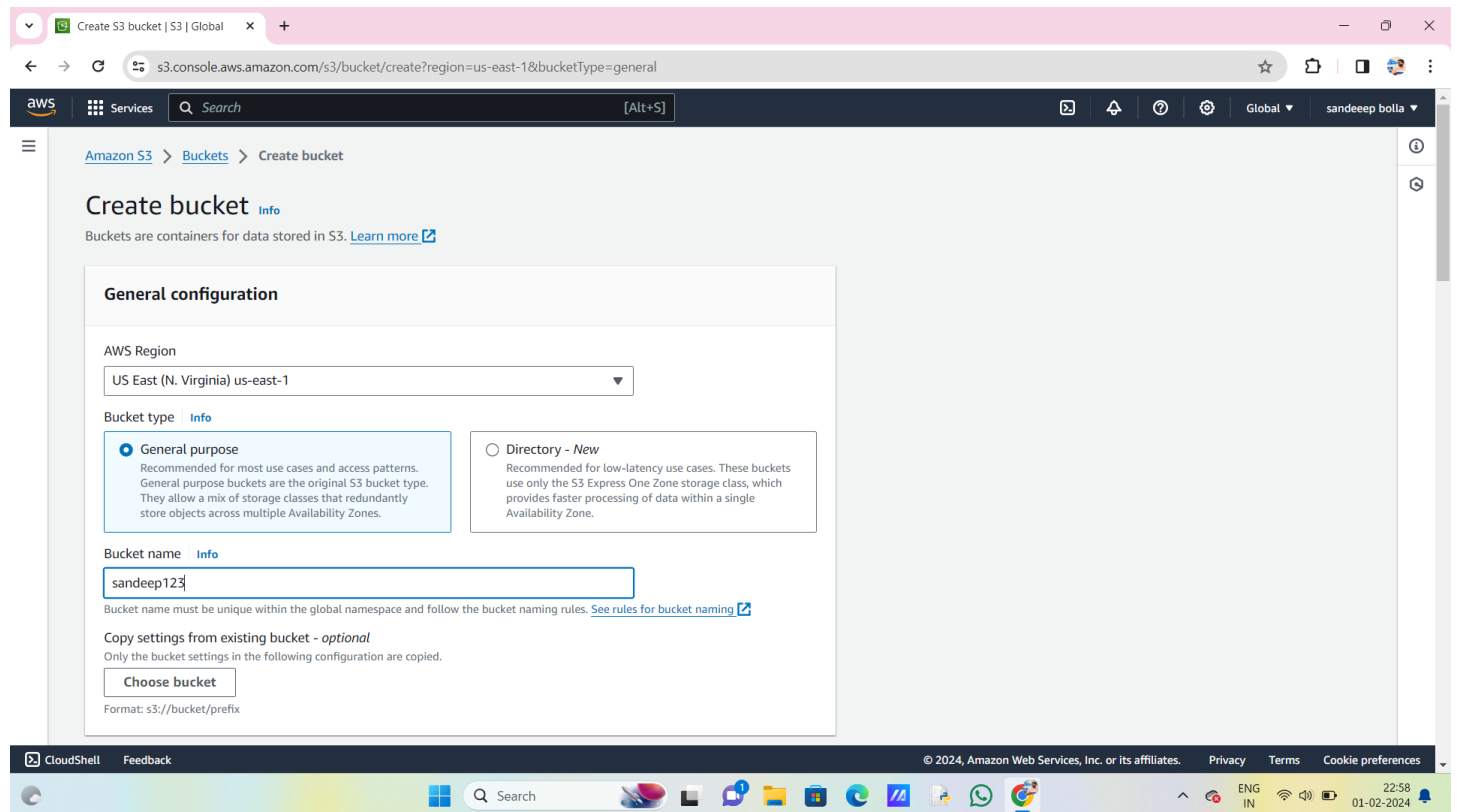


Access s3 through python code

Step 1) Creating a Bucket

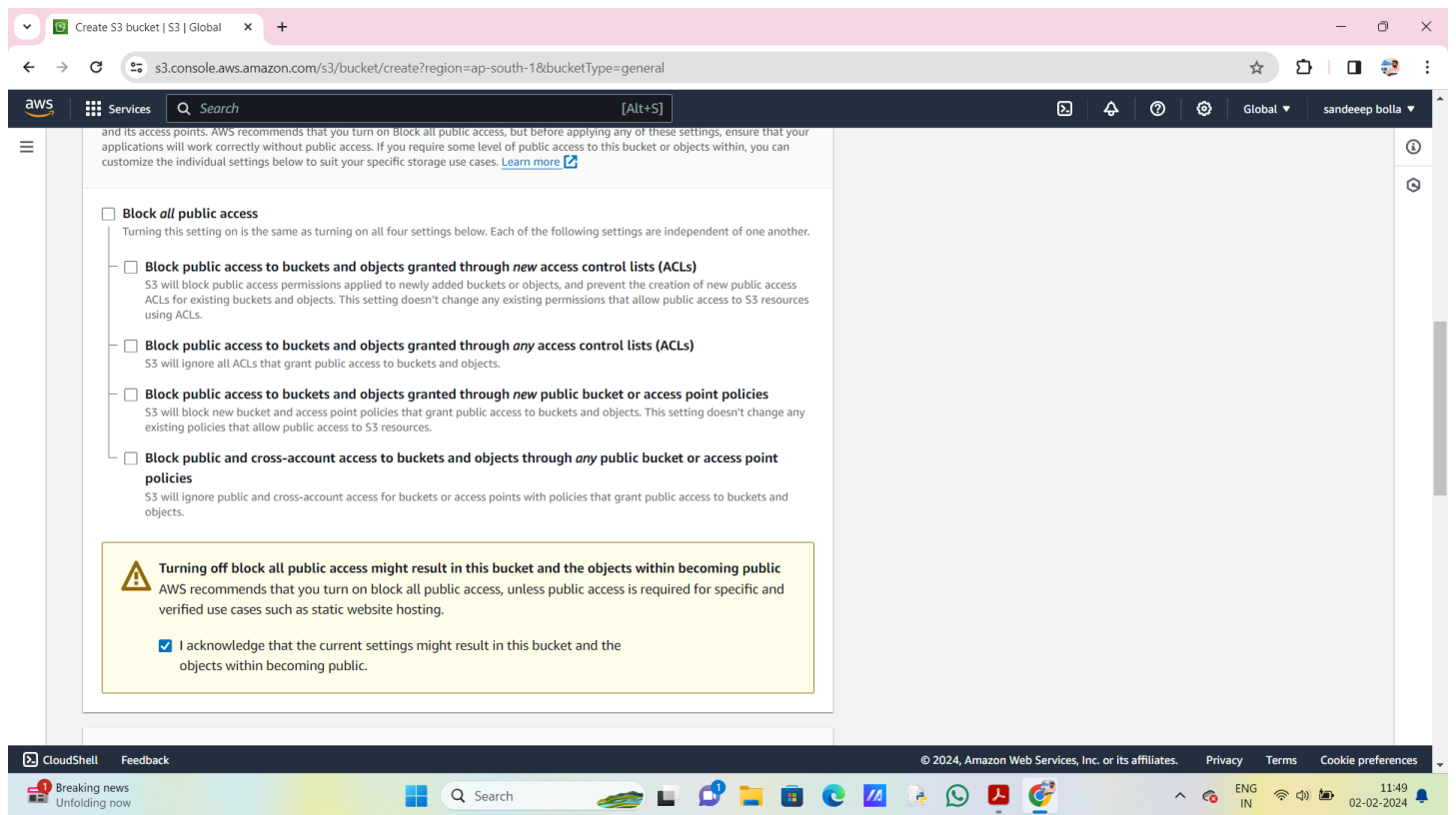
First, we have to launch our S3 instance. Follow these steps for creating a Bucket

- Open the Amazon S3 console by logging into the AWS Management Console at <https://console.aws.amazon.com/s3/>.
- Click on create bucket

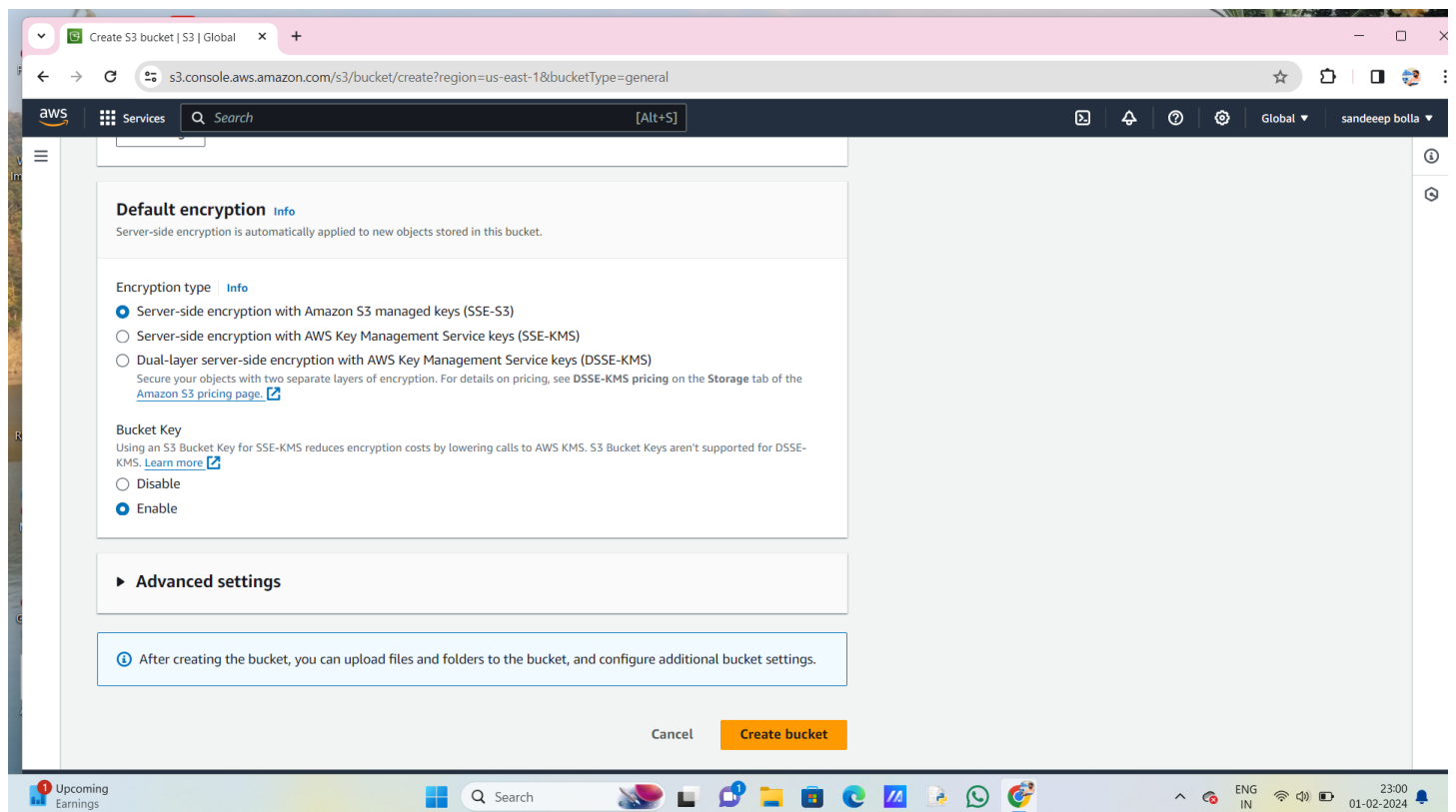


.Step 2)Block Public Access settings for the bucket

- Uncheck (Block all public access) for the public, otherwise set default. If you uncheck (Block all public keys).

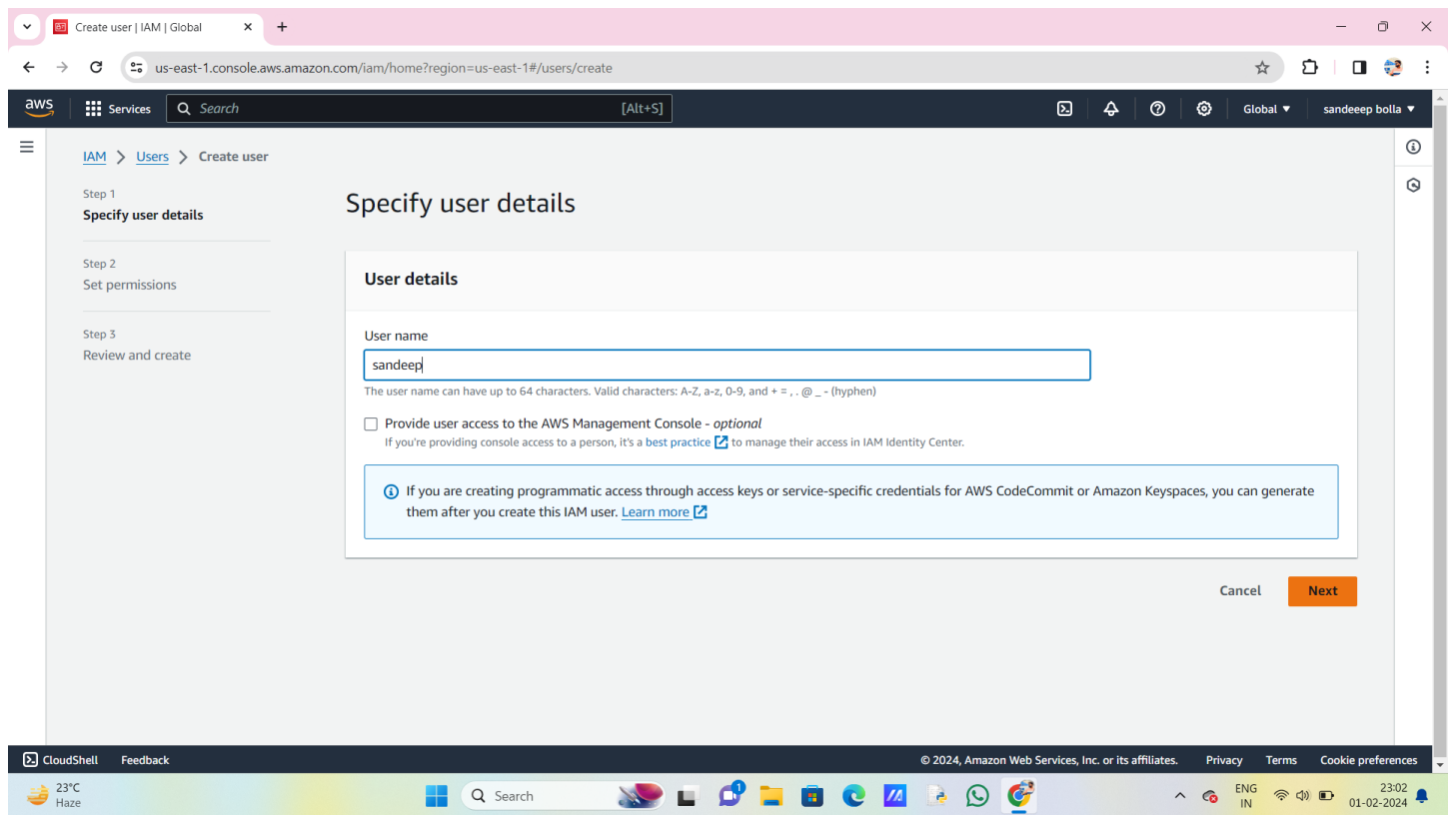


- Now, click on create bucket

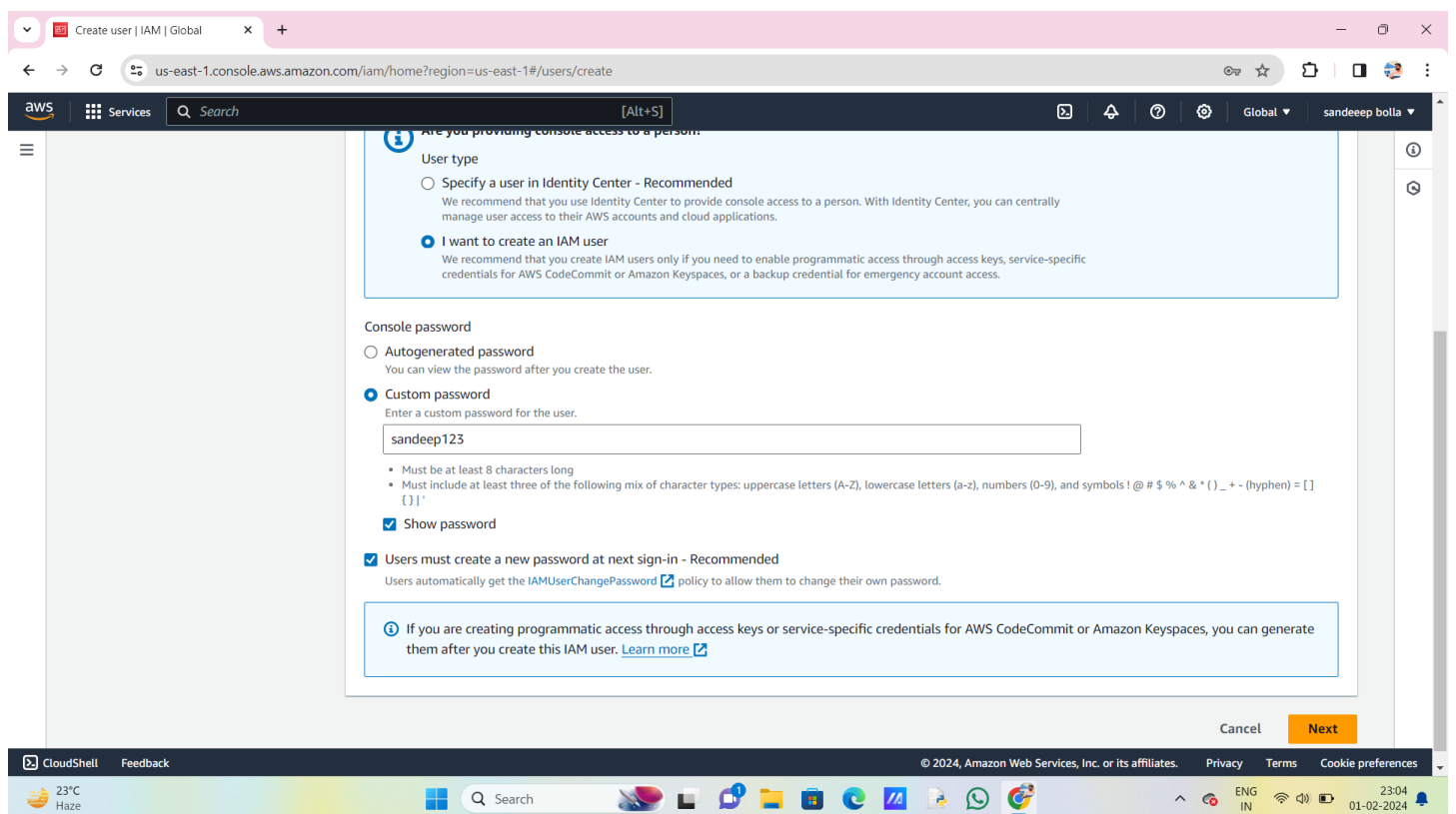


Step3: Create IAM user

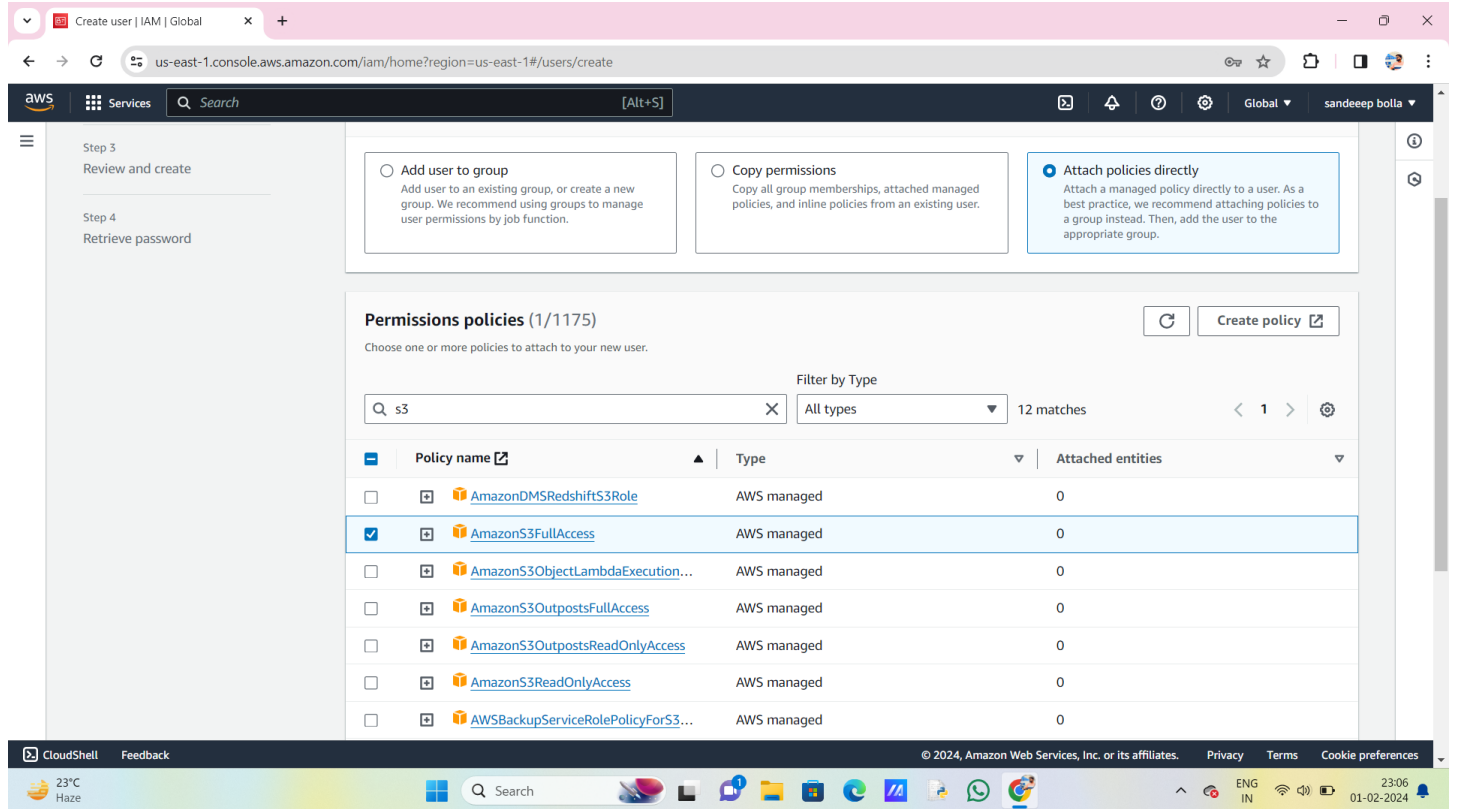
- Create a username and custom password



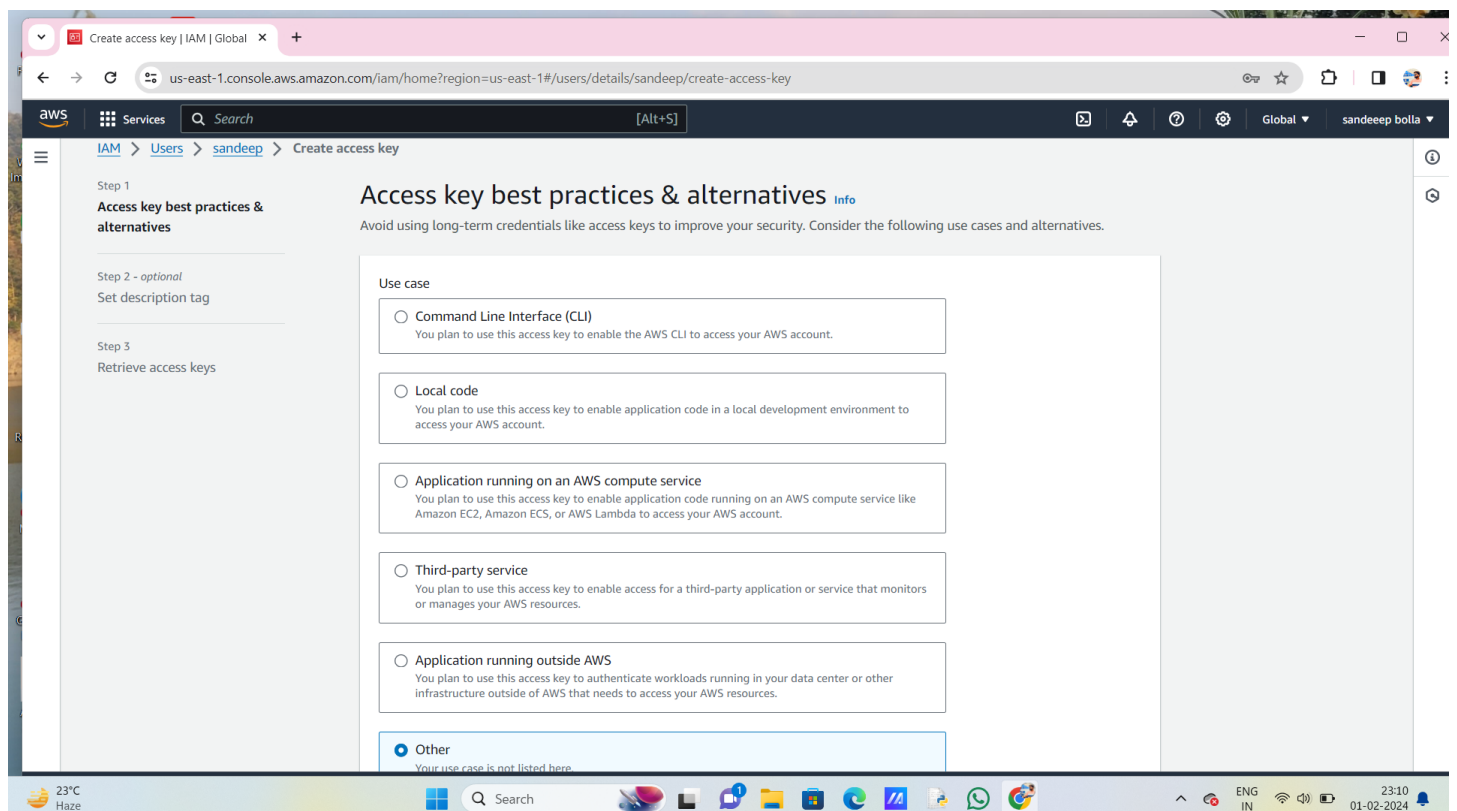
- uncheck the user must create a new password as shown below



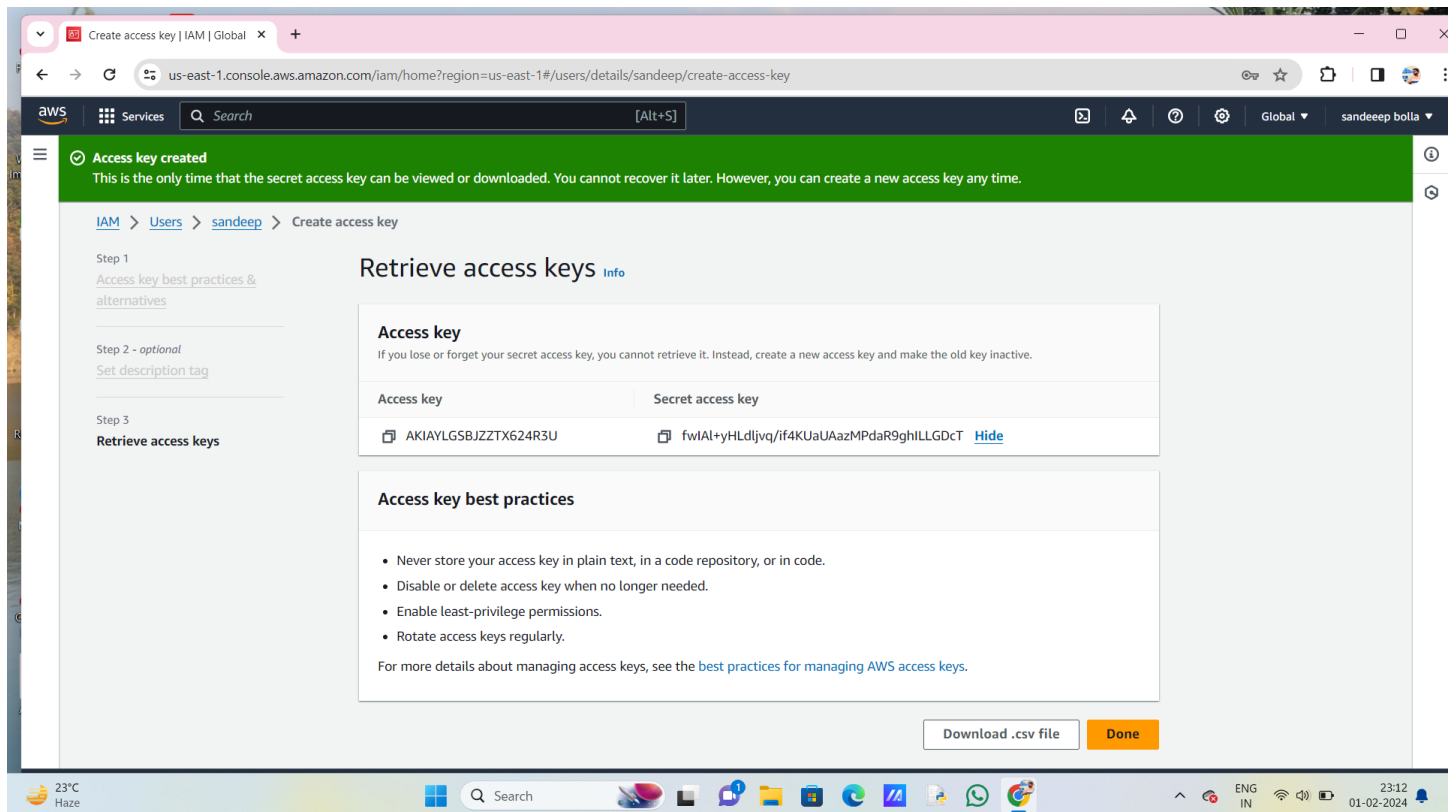
- click on NEXT
- click on attach the policies directly



- Give Access to AmazonS3FULLAccess
- IAM User created successfully
- click on IAM user ,you will see access key, click on create access key



- Now, you are provided with access key and secret access key and save them for further use



Step4: Go to google, search for Google colab and create a new Notebook

- run the following commands step by step
- install pip
- import boto3 and pandas libraries

colab.research.google.com/drive/1O3AehpBZVrTsJEoOfU0MKuXbdVtI0u8S7authuser=0#scrollTo=4lvE25iuteeN

Untitled1.ipynb

File Edit View Insert Runtime Tools Help All changes saved

+ Code + Text

Generate Using ... a slider using jupyter widgets

Generate is available for a limited time for unsubscribed users. [Upgrade to Colab Pro](#)

```
[ ] !pip install boto3
```

```
[ ] import boto3
import pandas as pd
s3 = boto3.client('s3')
```

```
[ ] s3 = boto3.resource(
    service_name='s3',
    region_name='us-east-1',
    aws_access_key_id='AKIAVLGSBJZZTDK4EH4R',
    aws_secret_access_key='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'
)
```

```
[ ] for bucket in s3.buckets.all():
    print(bucket.name)
```

```
[ ] !pip install s3fs
```

```
[ ] import os
os.environ["AWS_DEFAULT_REGION"] = 'us-east-1'
os.environ["AWS_ACCESS_KEY_ID"] = 'AKIAVLGSBJZZTDK4EH4R'
os.environ["AWS_SECRET_ACCESS_KEY"] = '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'
```

colab.research.google.com/drive/1O3AehpBZVrTsJEoOfU0MKuXbdVtI0u8S7authuser=0#scrollTo=4lvE25iuteeN

Untitled1.ipynb

File Edit View Insert Runtime Tools Help All changes saved

+ Code + Text

```
[ ] import pandas as pd
```

```
[ ] import pandas as pd

# Make dataframes
foo = pd.DataFrame({'x': [1, 2, 3], 'y': ['a', 'b', 'c']})
bar = pd.DataFrame({'A': [10, 20, 30], 'B': ['aa', 'bb', 'cc']})

# Save to csv
foo.to_csv('foo.csv')
bar.to_csv('bar.csv')
```

```
[ ] # Upload files to s3 bucket
s3.Bucket('sandeep123').upload_file(Filename='foo.csv', Key='foo.csv')
s3.Bucket('sandeep123').upload_file(Filename='bar.csv', Key='bar.csv')
```

```
[ ] for obj in s3.Bucket('sandeep123').objects.all():
    print(obj)
```

```
[ ] # Load csv file directly into python
obj = s3.Bucket('sandeep123').Object('foo.csv').get()
foo = pd.read_csv(obj['Body'], index_col=0)
```

```
[ ] obj = s3.Bucket('sandeep123').Object('bar.csv').get()
bar = pd.read_csv(obj['Body'], index_col=0)
```

```
[ ] foo.head()
```

The screenshot shows a Google Colab notebook titled 'Untitled1.ipynb'. The code is as follows:

```
[ ] import pandas as pd

[ ] import pandas as pd

# Make dataframes
foo = pd.DataFrame({'x': [1, 2, 3], 'y': ['a', 'b', 'c']})
bar = pd.DataFrame({'A': [10, 20, 30], 'B': ['aa', 'bb', 'cc']})

# Save to csv
foo.to_csv('foo.csv')
bar.to_csv('bar.csv')

[ ] # Upload files to S3 bucket
s3.Bucket('sandeep123').upload_file(Filename='foo.csv', Key='foo.csv')
s3.Bucket('sandeep123').upload_file(Filename='bar.csv', Key='bar.csv')

[ ] for obj in s3.Bucket('sandeep123').objects.all():
    print(obj)

[ ] # Load csv file directly into python
obj = s3.Bucket('sandeep123').object('foo.csv').get()
foo = pd.read_csv(obj['Body'], index_col=0)

obj = s3.Bucket('sandeep123').object('bar.csv').get()
bar = pd.read_csv(obj['Body'], index_col=0)

[ ] foo.head()
```

The bottom of the image shows a Windows taskbar with a weather widget (29°C Haze), search bar, and various application icons. The system clock shows 13:09 on 02-02-2024.

- Here, we can display the content of csv file that we have written

The screenshot shows the same Google Colab notebook after execution. The code cells are now numbered [15] and [16]. The output of the code is displayed as follows:

```
[15] bar = pd.read_csv(obj['Body'], index_col=0)

[16] foo.head()

   x  y
0  1  a
1  2  b
2  3  c

bar.head()

   A  B
0  10 aa
1  20 bb
2  30 cc
```

The bottom of the image shows a Windows taskbar with a weather widget (29°C Haze), search bar, and various application icons. The system clock shows 13:14 on 02-02-2024.

Step5: Files are being uploaded in S3 after running the above code

- successfully uploaded csv files in S3 bucket using above python code

New Tab

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create RDS with SQL

colab.google

Untitled1.ipynb - Col

Google Account

sandeep123 - S3 bu

s3.console.aws.amazon.com/s3/buckets/sandeep123?region=us-east-1&bucketType=general&tab=objects

awsServicesSearch[Alt+S]

Globalsandeep bolla

Amazon S3

Buckets

Access Grants

Access Points

Object Lambda Access Points

Multi-Region Access Points

Batch Operations

IAM Access Analyzer for S3

Block Public Access settings for this account

Storage Lens

Dashboards

Storage Lens groups

AWS Organizations settings

Feature spotlight7

AWS Marketplace for S3

Amazon S3> Buckets> sandeep123

sandeep123Info

Objects

Properties

Permissions

Metrics

Management

Access Points

Objects (2)Info

Refresh

Copy S3 URI

Copy URL

Download

Open

Delete

Actions

Create folder

Upload

Objects are the fundamental entities stored in Amazon S3. You can use [Amazon S3 inventory](#) to get a list of all objects in your bucket. For others to access your objects, you'll need to explicitly grant them permissions. [Learn more](#)

Find objects by prefix

<1>

	Name	Type	Last modified	Size	Storage class
<input type="checkbox"/>	bar.csv	csv	February 2, 2024, 13:13:27 (UTC+05:30)	29.0 B	Standard
<input type="checkbox"/>	foo.csv	csv	February 2, 2024, 13:13:27 (UTC+05:30)	23.0 B	Standard

CloudShellFeedback

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13:13

02-02-2024