

## TS SDP4 (Cloud DevOps)

ID NO: 190030677

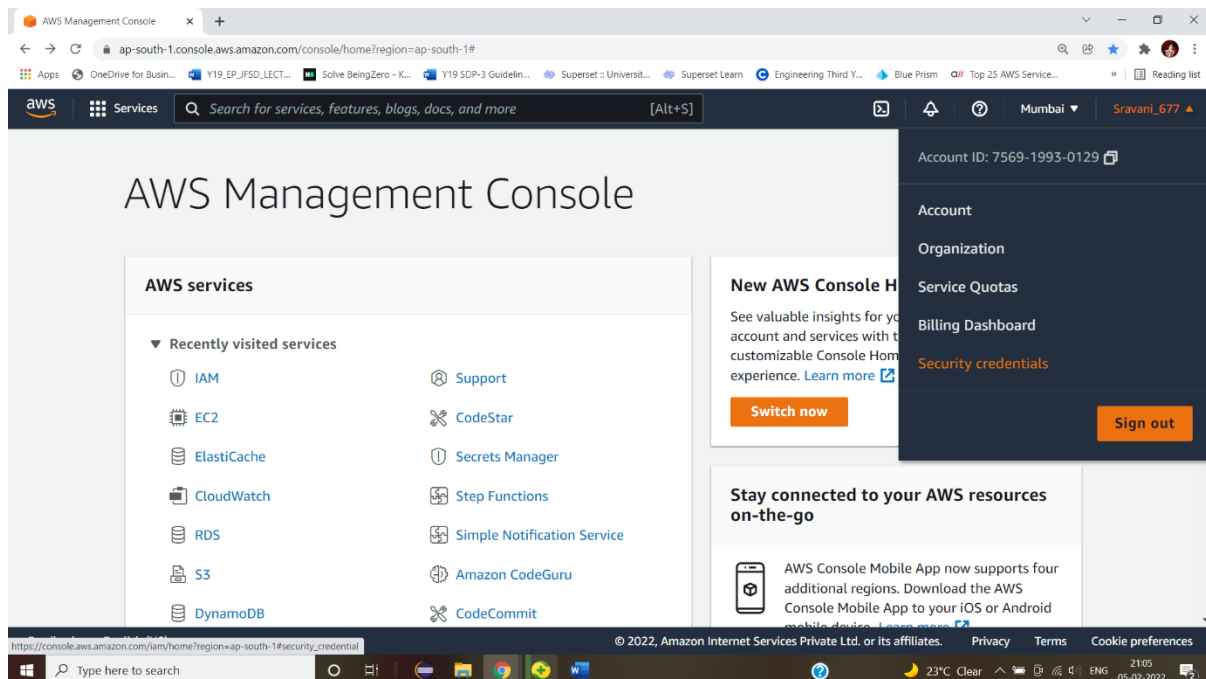
Name: K. Sravani

### Skilling-5

Create a S3 bucket and edit the bucket policy for the EC2 access from your account with the specific IAM role option. Create the IAM role for EC2 instance to access the other AWS services. Push the source code which you are having in your local system to the S3 bucket through AWS CLI commands. Create DynamoDB table for your application and connect with your EC2 instance. Launch the website with S3 bucket and DynamoDB connection with your EC2 instance.

### Steps:

1. Create the s3 bucket select the s3 services
2. select s3 bucket and unblock all public access and enable acl public
3. open command and execute the following commands
  - `aws configure --profile aws-devopsuse`
  - Provide the access key and secret access key
  - `aws s3 mb s3://BUCKET-NAME --region ap-south-1 --profile aws-devops` Replace the bucket name with the bucket created before and change the region



Identity and Access Management (IAM)

Dashboard

- Access management
  - User groups
  - Users
  - Roles
  - Policies
  - Identity providers
  - Account settings
- Access reports
  - Access analyzer
  - Archive rules
  - Analizers
  - Settings
- Credential report
- Organization activity
- Service control policies (SCPs)

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To learn more about the types of AWS credentials and how they're used, see [AWS Security Credentials](#) in AWS General Reference.

- ▲ Password
- ▲ Multi-factor authentication (MFA)
- ▼ Access keys (access key ID and secret access key)

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For your protection, you should never share your secret keys with anyone. As a best practice, we recommend frequent key rotation.

**If you lose or forget your secret key, you cannot retrieve it. Instead, create a new access key and make the old key inactive.** [Learn more](#)

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- ▲ CloudFront key pairs
- ▲ X.509 certificate

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**Create Access Key**

✓ Your access key (access key ID and secret access key) has been created successfully.

Download your key file now, which contains your new access key ID and secret access key. If you do not download the key file now, you will not be able to retrieve your secret access key again.

To help protect your security, store your secret access key securely and do not share it.

[Show Access Key](#) [Download Key File](#) [Close](#)

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S3 bucket

s3.console.aws.amazon.com/s3/bucket/create?region=ap-south-1

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### General configuration

Bucket name

ts-skill-5

Bucket name must be unique and must not contain spaces or uppercase letters. [See rules for bucket naming](#)

AWS Region

Asia Pacific (Mumbai) ap-south-1

Copy settings from existing bucket - optional

Only the bucket settings in the following configuration are copied.

Choose bucket

### Object Ownership [Info](#)

Control ownership of objects written to this bucket from other AWS accounts and the use of access control lists (ACLs). Object ownership determines who can specify access to objects.

☐ ACLs disabled (recommended)

All objects in this bucket are owned by this account. Access to this bucket and its objects is specified using only policies.

☒ ACLs enabled

Objects in this bucket can be owned by other AWS accounts. Access to this bucket and its objects can be specified using ACLs.

Object Ownership

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S3 bucket

s3.console.aws.amazon.com/s3/bucket/create?region=ap-south-1

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Turning off public access might result in this bucket and the objects within becoming public. Applications will work correctly without public access. If you require some level of public access to this bucket or objects within, you can customize the individual settings below to suit your specific storage use cases. [Learn more](#)

☐ Block all public access

Turning this setting on is the same as turning on all four settings below. Each of the following settings are independent of one another.

- ☐ Block public access to buckets and objects granted through new access control lists (ACLs)
- ☐ Block public access to buckets and objects granted through any access control lists (ACLs)
- ☐ Block public access to buckets and objects granted through new public bucket or access point policies
- ☐ Block public and cross-account access to buckets and objects through any public bucket or access point policies

**Turning off block all public access might result in this bucket and the objects within becoming public**

AWS recommends that you turn on block all public access, unless public access is required for specific and verified use cases such as static website hosting.

☒ I acknowledge that the current settings might result in this bucket and the objects within becoming public.

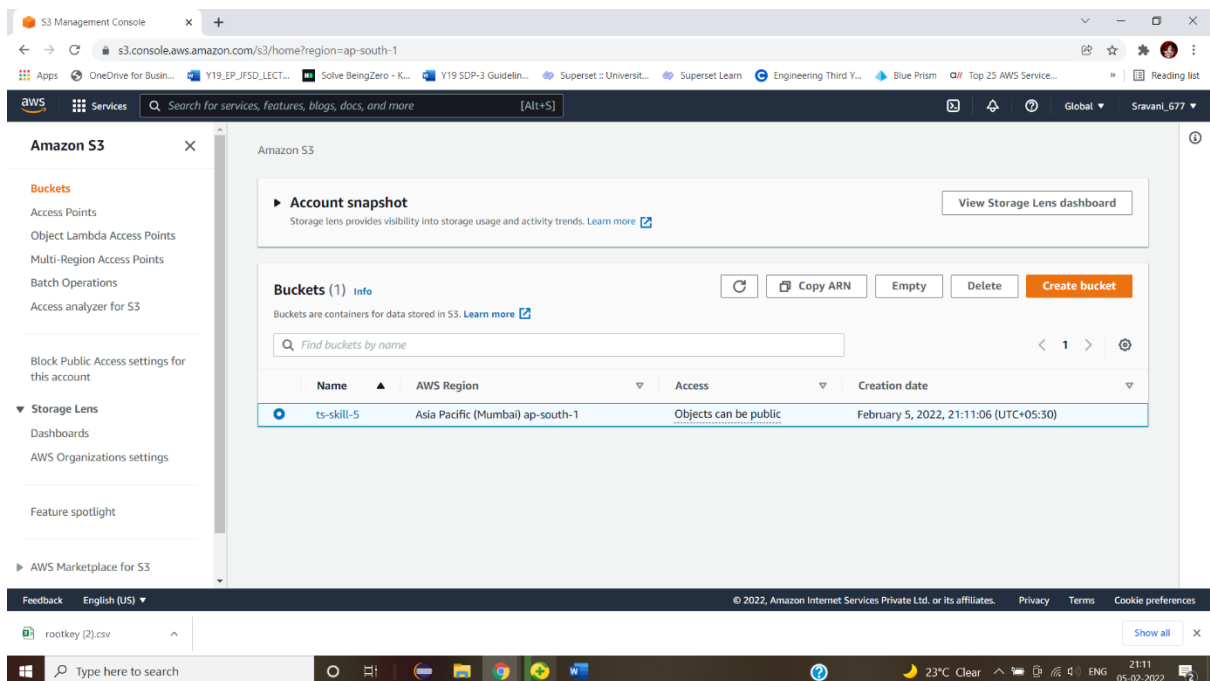
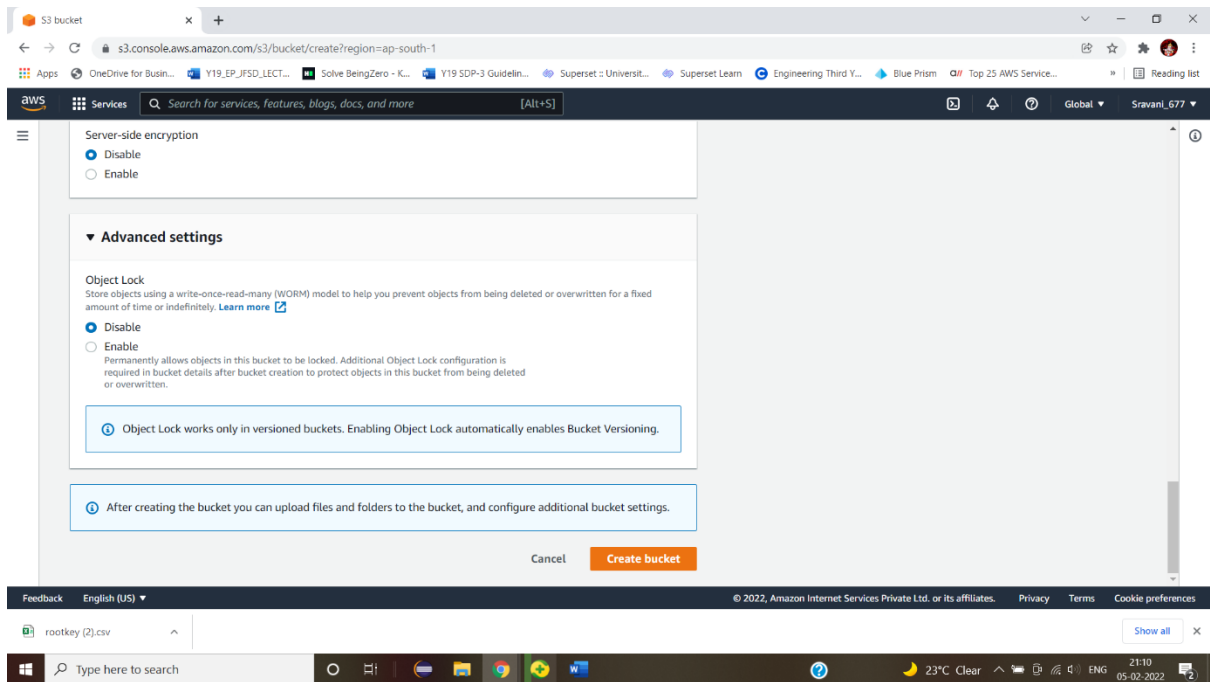
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```
Command Prompt
(c) Microsoft Corporation. All rights reserved.

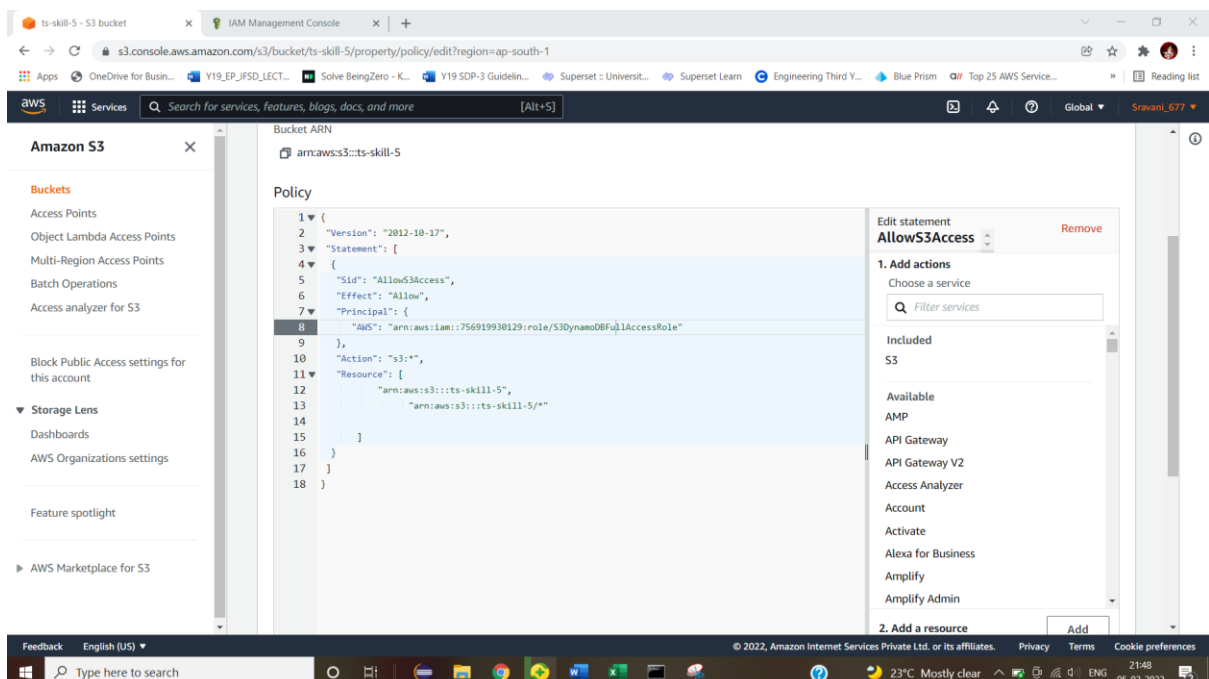
C:\Users\personal>aws configure --profile awws-devopsuse
AWS Access Key ID [None]: AKIA3AO7RRUIVZQGKV4O
AWS Secret Access Key [None]: 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
Default region name [None]: ap-south-1
Default output format [None]:

C:\Users\personal>
```

```
Command Prompt

C:\Users\personal>aws configure --profile aws-devops
AWS Access Key ID [None]: AKIA3AO7RRUIVZQGKV4O
AWS Secret Access Key [None]: 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
Default region name [None]: ap-south-1
Default output format [None]:

C:\Users\personal>aws s3 mb s3://ts-skill-5 --region ap-south-1 --profile aws-devops make_
bucket: ts-skill-5
```



← → ↻ ap-south-1.console.aws.amazon.com/ec2/v2/home?region=ap-south-1#LaunchInstanceWizard: Apps OneDrive for Busin... Y19\_EP\_JFSD\_LLECT... Solve BeingZero - K... Y19 SDP-3 Guidelin... Superset : Universit... Superset Learn Engineering Third Y... Blue Prism Top 25 AWS Service... Reading list

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You've been invited to try an early, beta iteration of the new launch instance wizard. We will continue to improve the experience over the next few months. We're asking customers for their feedback on this early release. To exit the new launch instance wizard at any time, choose the Cancel button. Try it now!

1. Choose AMI 2. Choose Instance Type 3. Configure Instance 4. Add Storage 5. Add Tags 6. Configure Security Group 7. Review

Step 1: Choose an Amazon Machine Image (AMI) Cancel and Exit

Tools preinstalled; Apache 2.2, MySQL 5.5, PHP 5.3, and Ruby 1.8.7 available.

Root device type: ebs Virtualization type: hvm ENA Enabled: Yes

Ubuntu Server 20.04 LTS (HVM), SSD Volume Type - ami-0851b76e8b1bce90b (64-bit x86) / ami-0491e5015eb6e7a9b (64-bit Arm)

Free tier eligible

Ubuntu Server 20.04 LTS (HVM),EBS General Purpose (SSD) Volume Type. Support available from Canonical (<http://www.ubuntu.com/cloud/services>).

Root device type: ebs Virtualization type: hvm ENA Enabled: Yes

Microsoft Windows Server 2019 Base - ami-053a337ba7a8c1cb1

64-bit (Arm) 64-bit (x86) 64-bit (Arm)

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ElastiCache Management Console Launch instance wizard | EC2 Ma

← → ↻ ap-south-1.console.aws.amazon.com/ec2/v2/home?region=ap-south-1#LaunchInstanceWizard: Apps OneDrive for Busin... Y19\_EP\_JFSD\_LLECT... Solve BeingZero - K... Y19 SDP-3 Guidelin... Superset : Universit... Superset Learn Engineering Third Y... Blue Prism Top 25 AWS Service... Reading list

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1. Choose AMI 2. Choose Instance Type 3. Configure Instance 4. Add Storage 5. Add Tags 6. Configure Security Group 7. Review

Step 2: Choose an Instance Type

Amazon EC2 provides a wide selection of instance types optimized to fit different use cases. Instances are virtual servers that can run applications. They have varying combinations of CPU, memory, storage, and networking capacity, and give you the flexibility to choose the appropriate mix of resources for your applications. [Learn more](#) about instance types and how they can meet your computing needs.

Filter by: All Instance families Current generation Show/Hide Columns

Currently selected: t2.micro (- ECU, 1 vCPUs, 2.5 GHz, -, 1 GiB memory, EBS only)

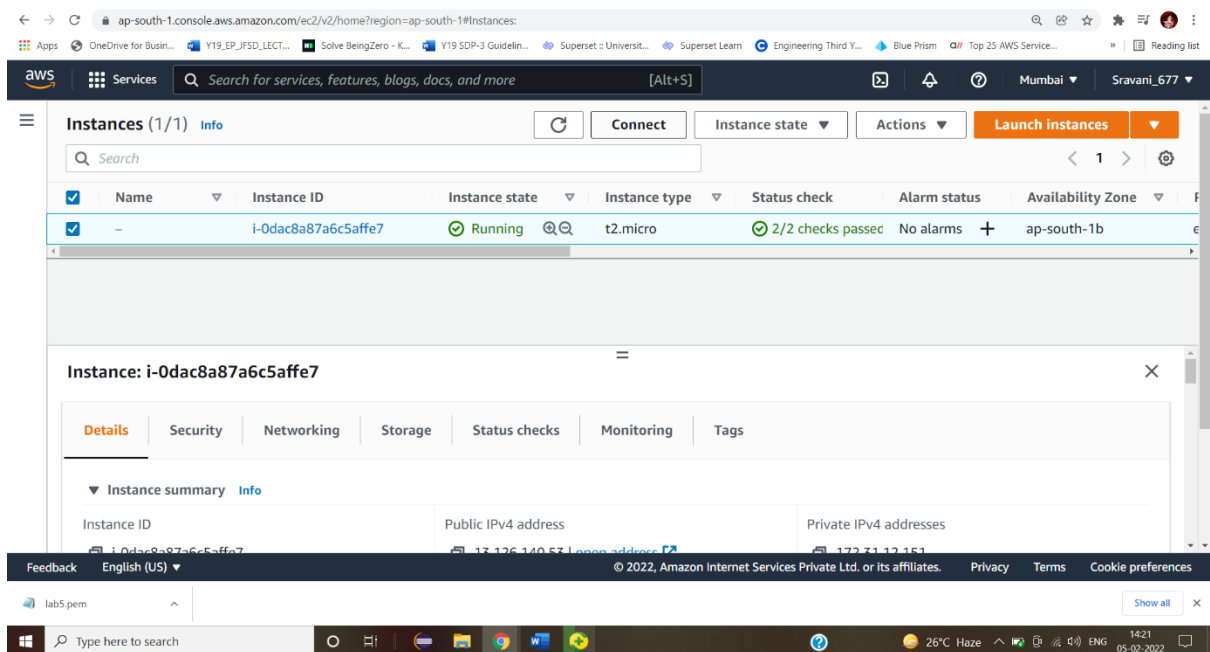
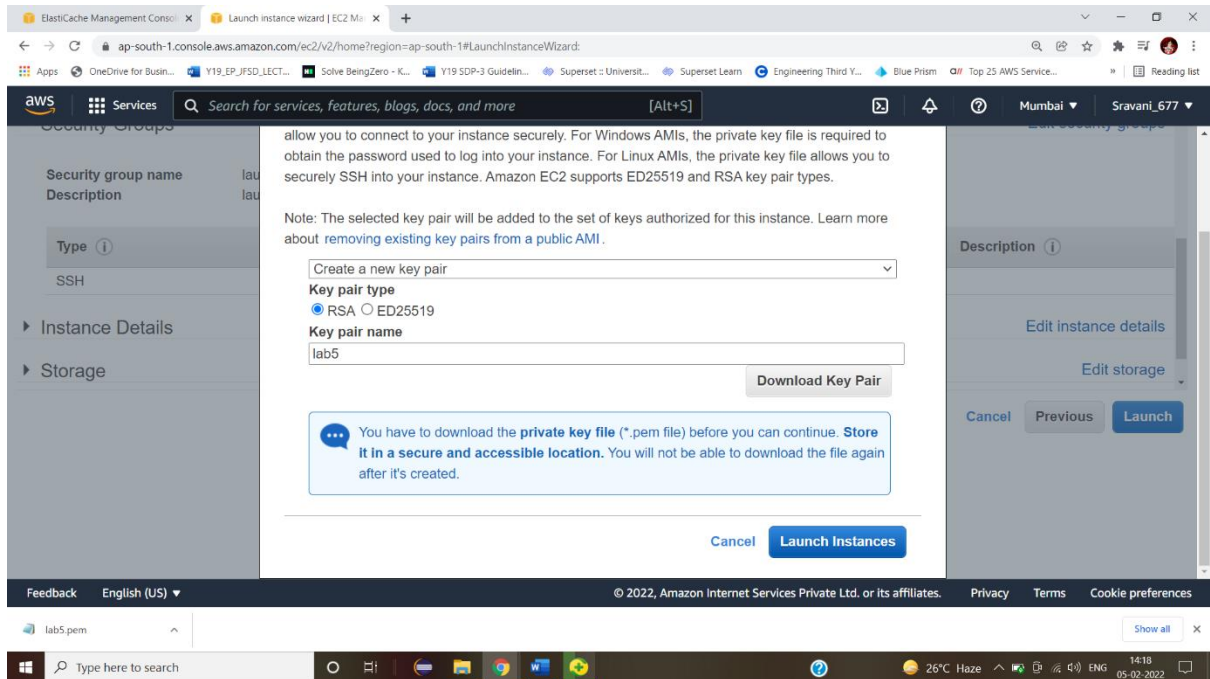
	Family	Type	vCPUs	Memory (GiB)	Instance Storage (GB)	EBS-Optimized Available	Network Performance	IPv6 Support
	t2	t2.nano	1	0.5	EBS only	-	Low to Moderate	Yes
	t2	t2.micro	1	1	EBS only	-	Low to Moderate	Yes
	t2	t2.small	1	2	EBS only	-	Low to Moderate	Yes

Cancel Previous Review and Launch Next: Configure Instance Details

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Last login: Sat Feb  5 08:53:46 2022 from ec2-18-206-107-24.compute-1.amazonaws.com

  _ _ _ _ _
  | | | | |
  |_|_|_|_|_| Amazon Linux 2 AMI

https://aws.amazon.com/amazon-linux-2/
[ec2-user@ip-172-31-87-210 ~]$ wget https://adcskill51.s3.amazonaws.com/dynamodb.zip
--2022-02-05 08:55:34-- https://adcskill51.s3.amazonaws.com/dynamodb.zip
Resolving adcskill51.s3.amazonaws.com (adcskill51.s3.amazonaws.com)... 52.216.200.91
Connecting to adcskill51.s3.amazonaws.com (adcskill51.s3.amazonaws.com)|52.216.200.91|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 1249347 (1.2M) [application/zip]
Saving to: 'dynamodb.zip'

100%[=====] 1,249,347  --.-K/s  in 0.05s

2022-02-05 08:55:34 (23.5 MB/s) - 'dynamodb.zip' saved [1249347/1249347]

[ec2-user@ip-172-31-87-210 ~]$

[ec2-user@ip-172-31-87-210 ~]$ pip3 install flask
Defaulting to user installation because normal site-packages is not writeable
Collecting flask
  Downloading Flask-2.0.2-py3-none-any.whl (95 kB)
    |#####| 95 kB 5.7 MB/s
Collecting Jinja2>=3.0
  Downloading Jinja2-3.0.3-py3-none-any.whl (133 kB)
    |#####| 133 kB 31.4 MB/s
Collecting itsdangerous>=2.0
  Downloading itsdangerous-2.0.1-py3-none-any.whl (18 kB)
Collecting click>=7.1.2
  Downloading click-8.0.3-py3-none-any.whl (97 kB)
    |#####| 97 kB 10.8 MB/s
Collecting Werkzeug>=2.0
  Downloading Werkzeug-2.0.2-py3-none-any.whl (288 kB)
    |#####| 288 kB 33.2 MB/s
Collecting MarkupSafe>=2.0
  Downloading MarkupSafe-2.0.1-cp37-cp37m-manylinux2010_x86_64.whl (31 kB)
Collecting importlib-metadata; python_version < "3.8"
  Downloading importlib_metadata-4.10.1-py3-none-any.whl (17 kB)
Collecting typing-extensions>=3.6.4; python_version < "3.8"
  Downloading typing_extensions-4.0.1-py3-none-any.whl (22 kB)
Collecting zipp>=0.5
  Downloading zipp-3.7.0-py3-none-any.whl (5.3 kB)
Installing collected packages: MarkupSafe, Jinja2, itsdangerous, typing-extensions, zipp, importlib-metadata, click, Werkzeug, flask
Successfully installed Jinja2-3.0.3 MarkupSafe-2.0.1 Werkzeug-2.0.2 click-8.0.3 flask-2.0.2 importlib-metadata-4.10.1 itsdangerous-2.0.1 typing-
.1 zipp-3.7.0
[ec2-user@ip-172-31-87-210 ~]$ pip3 install boto3

GNU nano 2.9.8 task.py

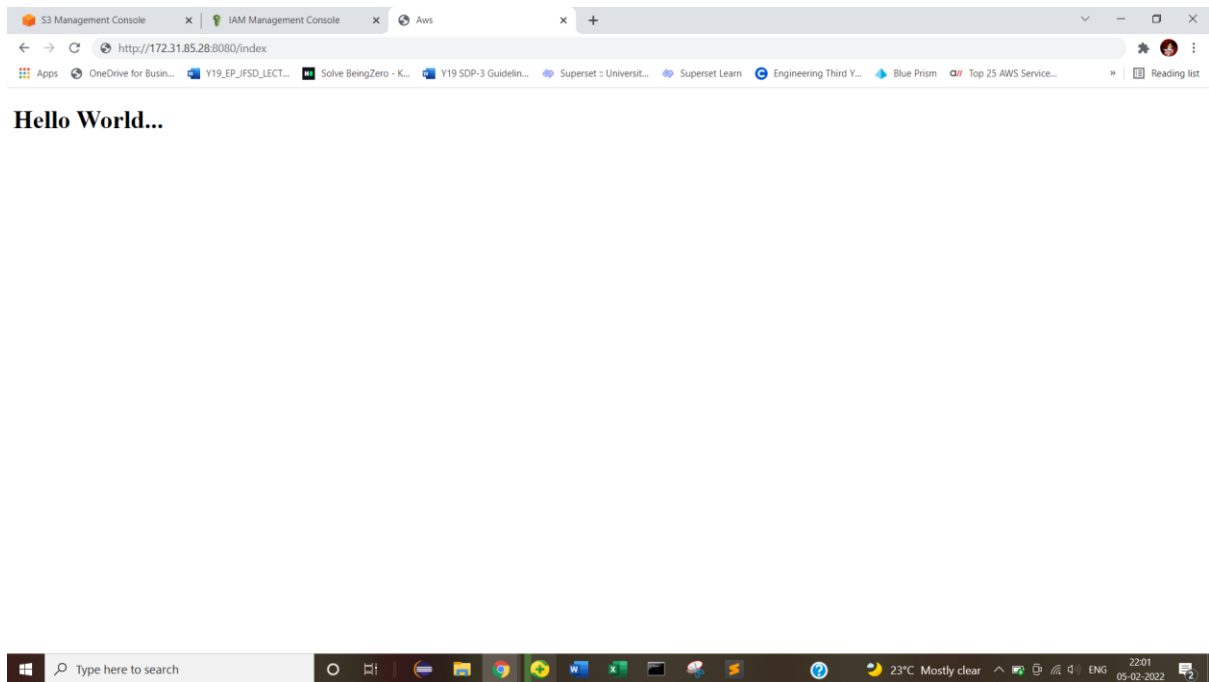
from flask import Flask, render_template, request
import boto3
from botocore.exceptions import ClientError
#import sqlite3 as db;

app = Flask(__name__)

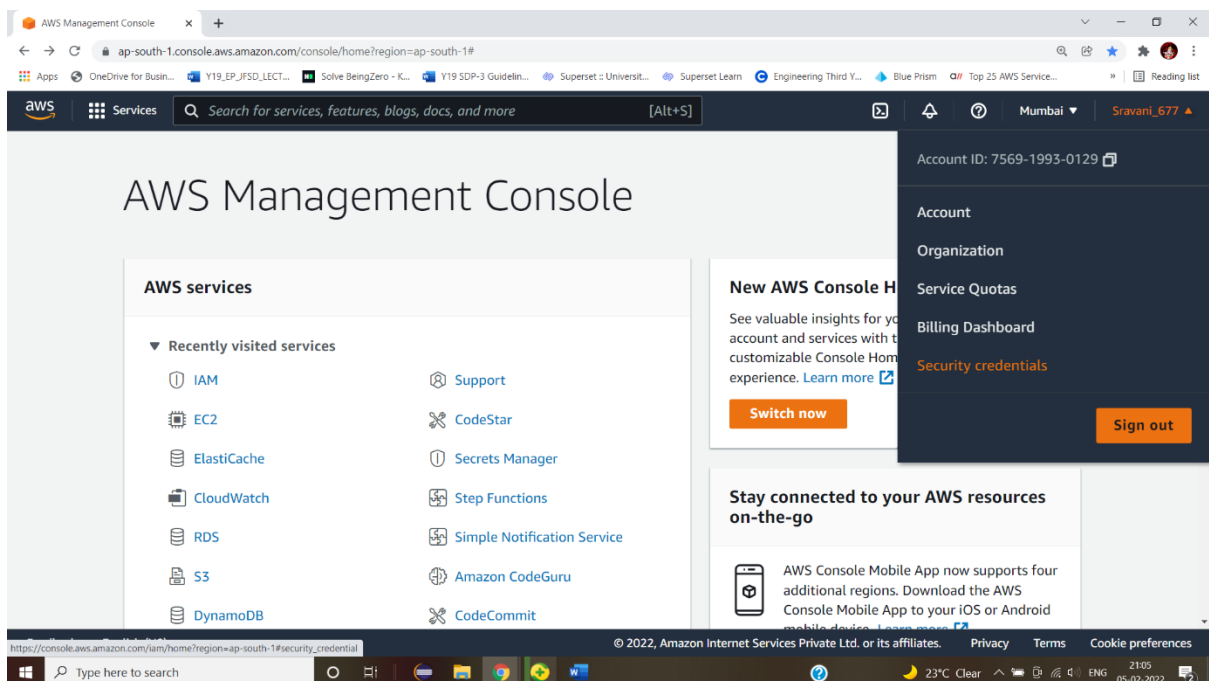
dynamodb = boto3.resource('dynamodb', endpoint_url="http://dynamodb.us-east-1.amazonaws.com")
@app.route('/index')
@app.route('/')
def hello():
    return "Hello world!";
if __name__ == "__main__":
    app.run(debug = True, host='0.0.0.0', port=8080);

```





Create AWS Lambda serverless compute and use S3 bucket to trigger the Lambda function, do some operation in the Lambda function and record the logs in AWS CloudWatch.



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[Show Access Key](#) [Download Key File](#) [Close](#)

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