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Sub: EADC (Enterprise Application Development for Cloud)

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Batch:61

----------------------------PRACTICAL 03----------------------------
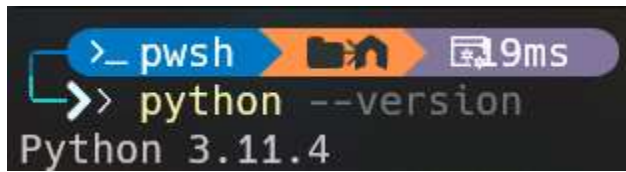
❖ **Question :**

You are a developer working on a Node.js application that you need to deploy to AWS Elastic Beanstalk (EB) using the EB CLI. Your application utilizes Express.js for the backend and HTML CSS for the frontend. You want to ensure a smooth deployment process with minimal downtime for your users. Additionally, you want to configure environment variables specific to your deployment environment.

≫ **Below I provided step by step solution for above practical .**
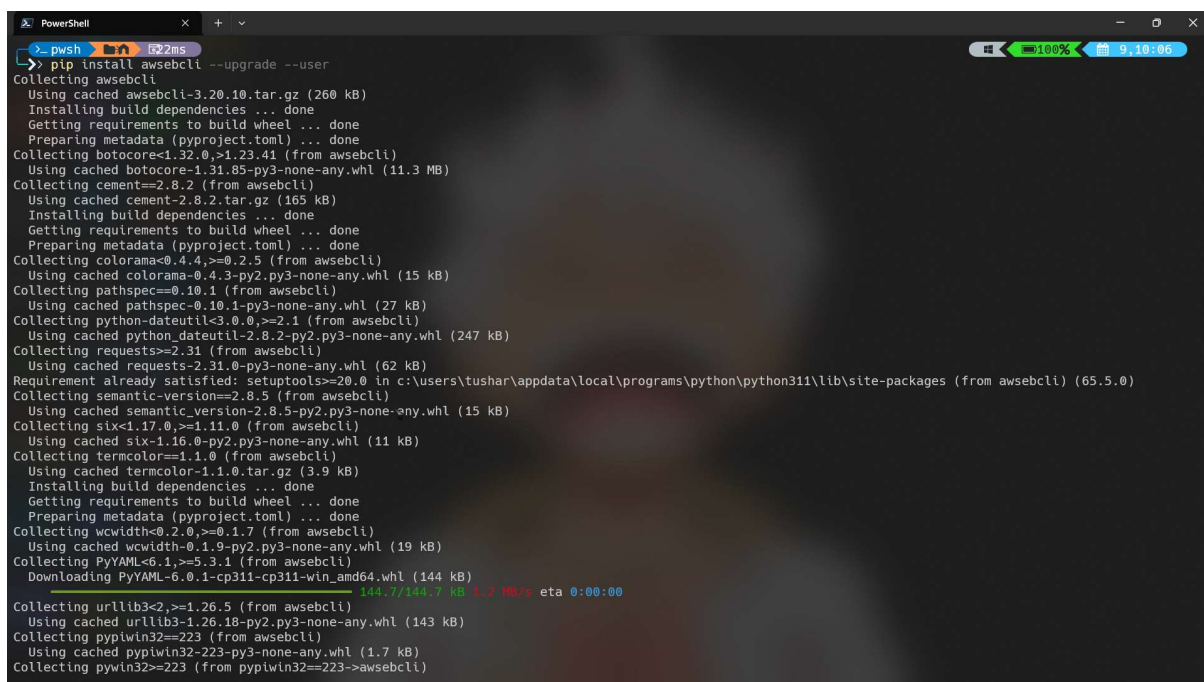
» 1. Make sure that your python version is 3.11.4 :

Command : `python –version`

» 2. Then install EB CLI using pip :

Command : `pip install awsebcli --upgrade --user`

Restart a new command shell for the new Path variable to take effect.

» 3. Add the following executable path to the Path environment variable in your Windows user account. The location might be different, depending on whether you install Python for one user or all users. *%USERPROFILE%\AppData\Roaming\Python\Python311\Scripts*
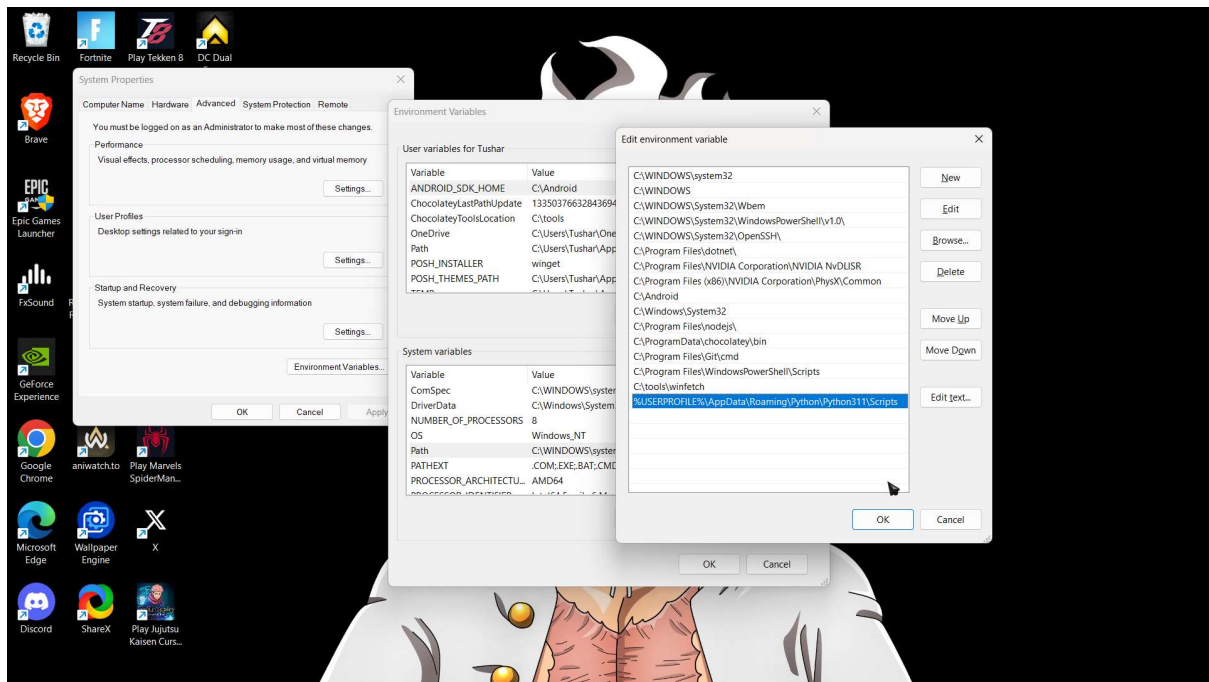
4. Verify that the EB CLI is installed correctly :

Command : `eb --version`

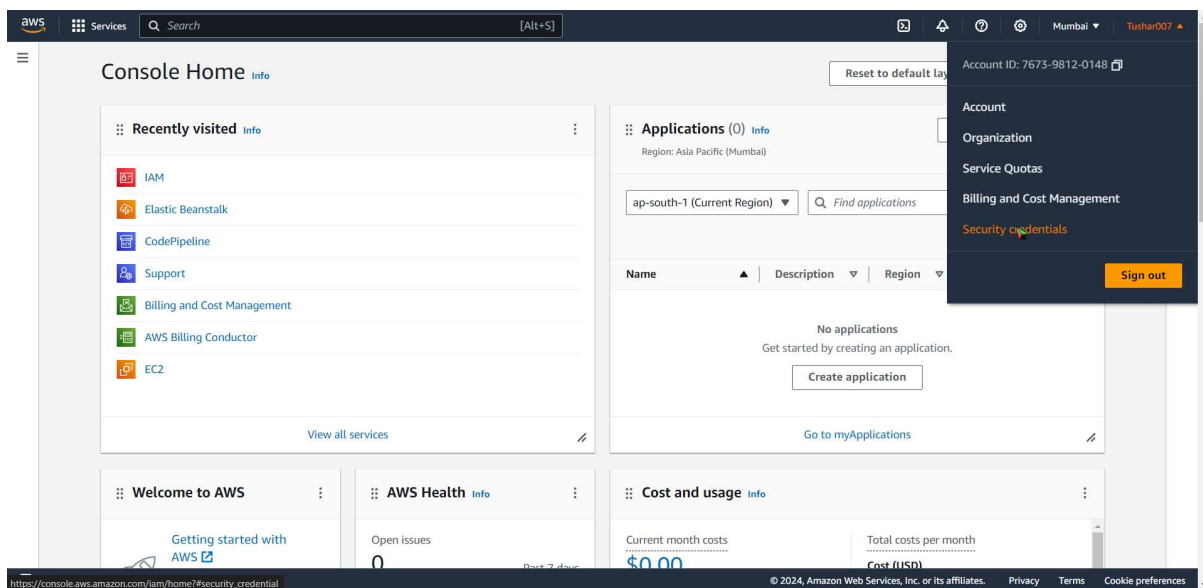## 5. Initialize EB in out project folder:

Command : `eb init`

» 6. Select our desired region, we have selected 6 which was (Mumbai) :
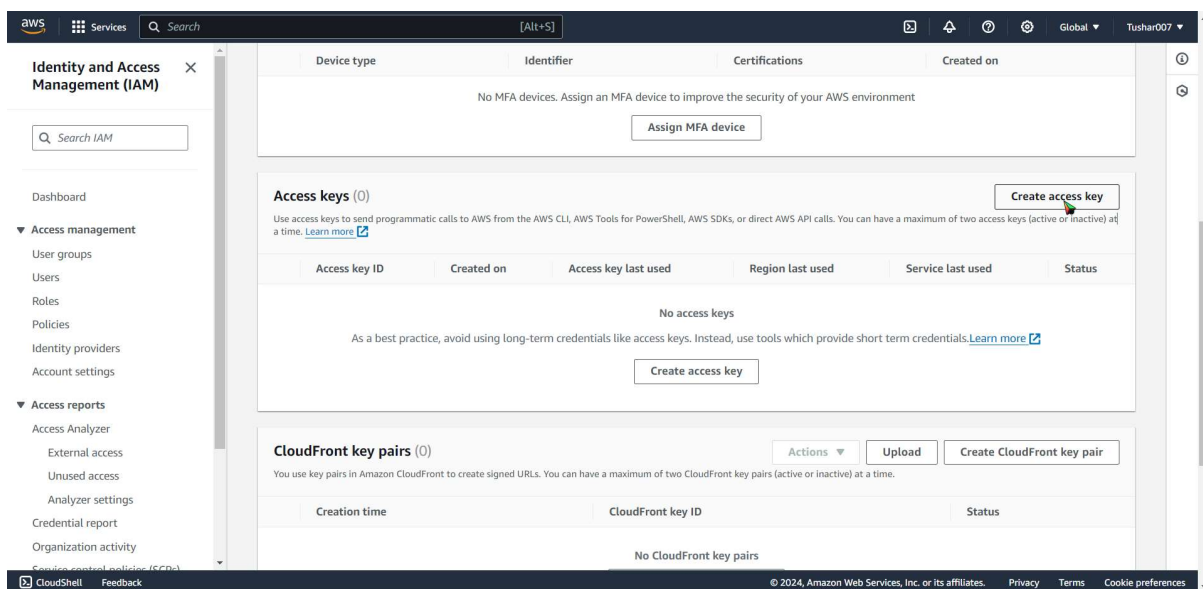
```
(default is 3): 6

You have not yet set up your credentials or your credentials are incorrect
You must provide your credentials.
(aws-access-id):
```

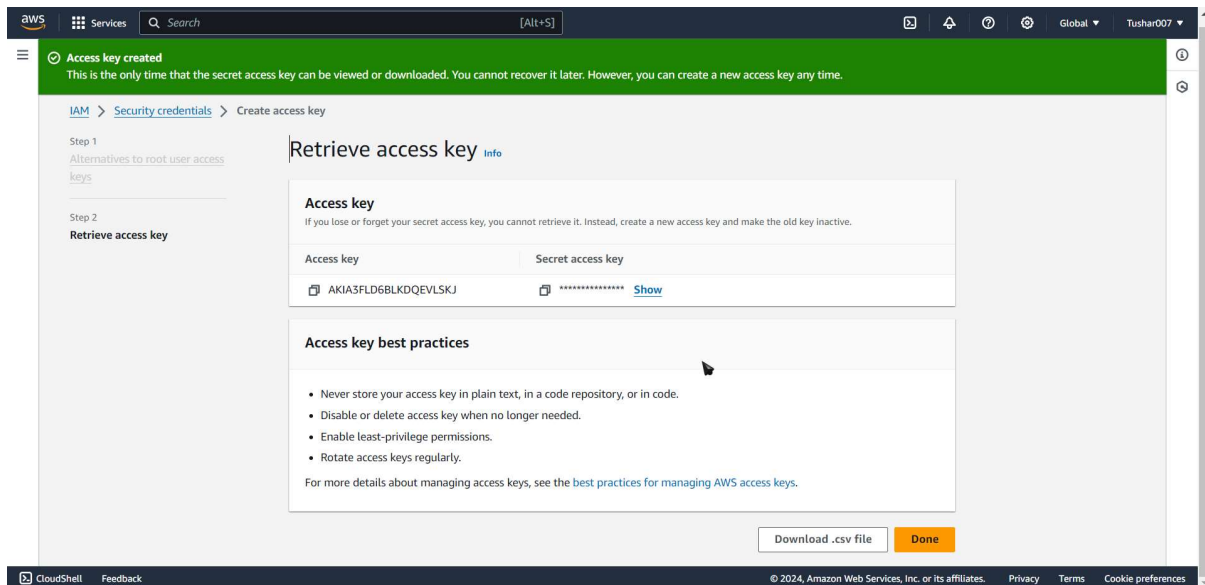## » 7. Go to AWS account and press create access key to generate the id :

Go to your account Security Credentials

Then scroll down and hit create access key

8. After it gets generated enter it into our CLI :


```
You have not yet set up your credentials or your credentials are incorrect
You must provide your credentials.
(aws-access-id): AKIA3FLD6BLKDQEVLSKJ
(aws-secret-key): /oZlw830xkSVa+ENe+btHZNqxdkNpdzCLc/swIFK
```

9. Feel other details as it appers :

```
Select an application to use
1) Tushar_Prac_3
2) [ Create new Application ]
(default is 2): 2


Enter Application Name
(default is "Practical-3"): Tushar-App-eb
Application Tushar-App-eb has been created.

It appears you are using Node.js. Is this correct?
(Y/n): y
Select a platform branch.
1) Node.js 20 running on 64bit Amazon Linux 2023
2) Node.js 18 running on 64bit Amazon Linux 2023
3) Node.js 18 running on 64bit Amazon Linux 2
4) Node.js 16 running on 64bit Amazon Linux 2 (Deprecated)
5) Node.js 14 running on 64bit Amazon Linux 2 (Deprecated)
(default is 1):


Do you wish to continue with CodeCommit? (Y/n):
```

» 10. This shows that our Application is created :

```
Cannot setup CodeCommit because there is no Source Control setup, continuing with initialization
Do you want to set up SSH for your instances?
(Y/n): y

Select a keypair.
1) aws-eb
2) aws-eb2
3) [ Create new KeyPair ]
(default is 2): 3


Type a keypair name.
(Default is aws-eb3): aws-eb3
Generating public/private rsa key pair.
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in C:\Users\Tushar\.ssh\aws-eb3
Your public key has been saved in C:\Users\Tushar\.ssh\aws-eb3.pub
The key fingerprint is:
SHA256:U/2ddC6660YJ2ooMbsQOR0WU9Q84XejzVj5z1+uxYak aws-eb3
The key's randomart image is:
+---[RSA 3072]----+
|    ooo.  ..     |
|     o +.o       |
|     . o.= .  ..|
|   .    o+o .ooo|
|   o   So +.+o.+|
|  . =   ... =.+.=|
|   * o . . o.  Oo|
|    + o .   ..o.+|
|    .      o+E.o |
+----[SHA256]-----+
Enter passphrase:
WARNING: Uploaded SSH public key for "aws-eb3" into EC2 for region ap-south-1.
```

11. Now we have to create environment using command eb create (name) :

Command : `eb create Practical-3`

➡️ **That's it I finally deployed my Node-js application to AWS Elastic Beanstalk (EB) using the EB CLI (Command Line Interface).**

⟫ <u>Output of my node-js application(Personal Protfolio) :</u>