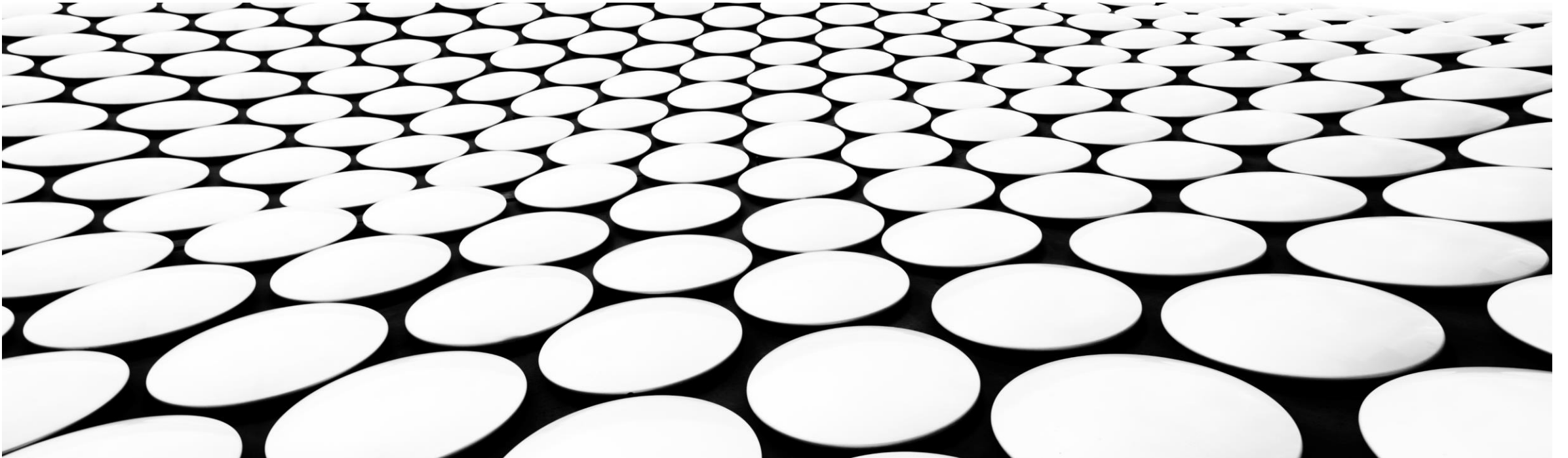# INTRODUCTION TO CLOUD COMPUTING

BY NIRAL PATEL JANUARY 2021

INTRODUCTION

- In today world we want to access everything from our phone and faster. Cloud computing is one of the best way to do that. Cloud Provide like AWS they do provide good amount of security and alert. In amazon alert we have custom option that we can choose from. In this class I learn

- How to set up my cloud computing

- How to access them remotely

- Setup security and alert satting

AMAZON WEB SERVICE ACCOUNT

- Creat AWS service account.

- Creating an IAM user

- Set permissions : Administrator Access

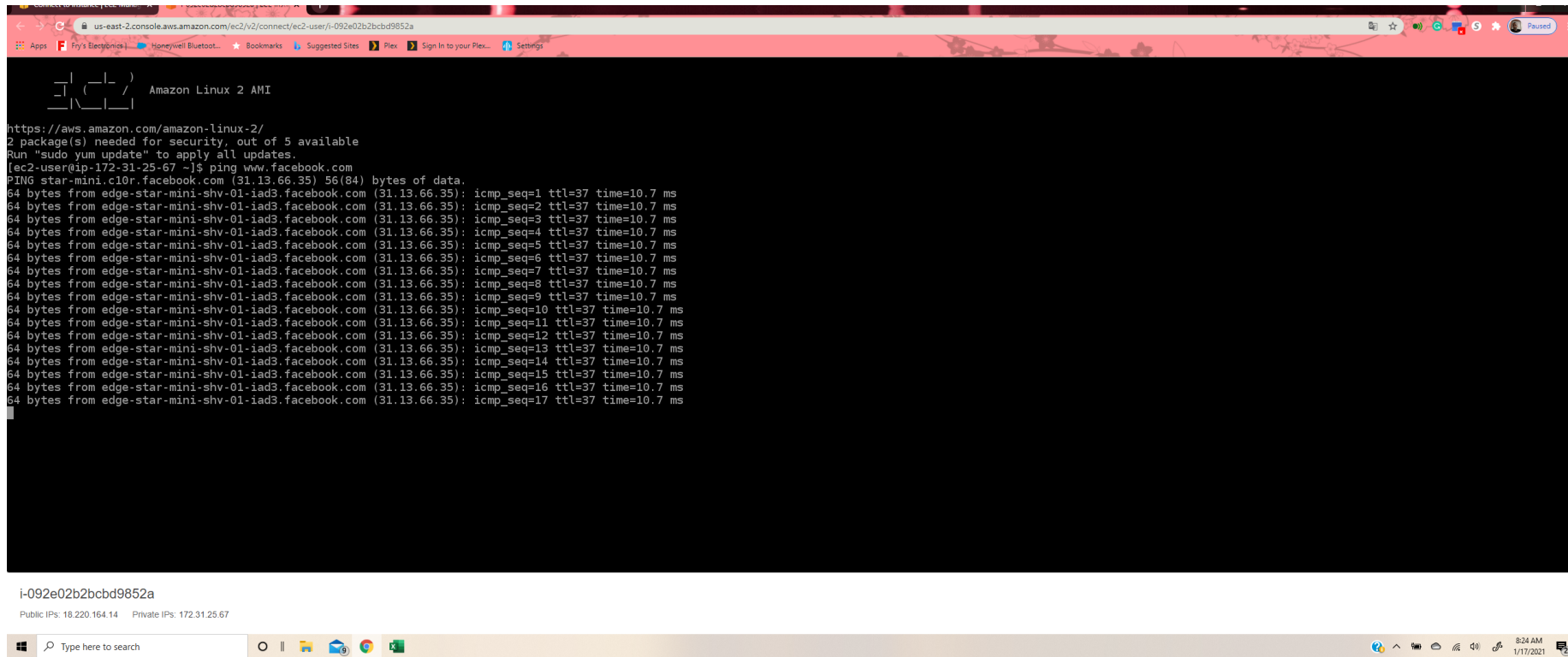- How to download .csv file with credentials of newly created user.

VIRTUAL MACHINE (VM) INSTANCES

- Launching an EC2 instance

- Connecting to the instance

- Terminating the instance

LAUNCHING AN EC2 INSTANCE

CONNECTING TO THE INSTANCE

TERMINATING THE INSTANCE

VIRTUAL PRIVATE CLOUD

- In this project I Learn about Virtual Private Cloud. This service allows customer to provision a logically isolated section of the AWS cloud, and launch AWS resources into a virtual network.

- Task completed in this projects

  - Launching VPC with a single subnet

  - Viewing subnets and route tables

  - Adding another subnet

LAUNCHING VPC WITH A SINGLE SUBNET

QUESTIONS

- 1. With a /26 network prefix, how many usable IPv4 addresses are there? Why is the number of available IPv4 addresses HERE shown as 59?

- Answer here: total available IPv4 is 62 out of that 3 reserved by AWS.

- 1 for AWS for the VPC ROUTER.

- 2. FOR DNS server

- 3. For the future use.

- 2. What's the role of an Internet Gateway?

- Answer here: it serves 2 purpose.

1. It perform network address translation

2. Provide a target in your vpc rout tables for internet-routable traffic

- References:

- 1. https://docs.aws.amazon.com/vpc/latest/userguide/VPC_Subnets.html

- 2. https://docs.aws.amazon.com/vpc/latest/userguide/VPC_Internet_Gateway.html

ADDING ANOTHER SUBNET

VM INSTANCE SECURITY

- In this I explore 2 techniques used to secure AWS EC2 instances: setting up security group to control inbound and outbound traffic of an instance.

- Tasks to be completed:

    - Launching an EC2 instance

    - Connecting to the instance using a key pair

    - Setting up a security group

LAUNCHING AN EC2 INSTANCE

CONNECTING TO THE INSTANCE USING A KEY PAIR

SETTING UP A SECURITY GROUP

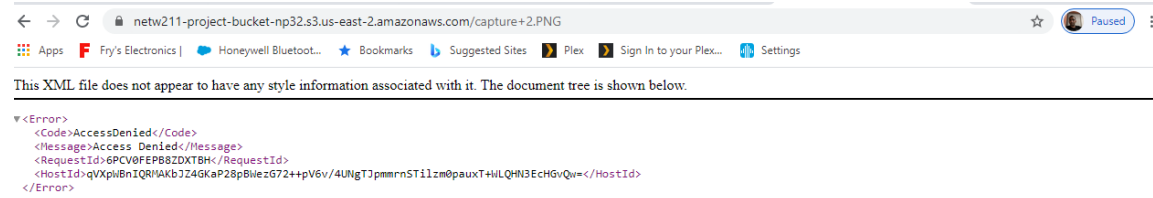■ The local computer to the instance in the cloud.

CLOUD STORAGE

- I explore Amazon's simple storage service (S3). S3 is an object storage service used to store and protect data for use cases such as mobile applications, websites, Backups, IoT device, and big data analytics.

- Task I did

  - Creating an S3 bucket

  - Uploading a file

  - Changing file and bucket permissions

  - Removing the file

QUESTION

- What does the default encryption do?

- Answer here: encryption Encrypt the file. It's type of data security. it will make harder to read content of the file or data.

- Amazon S3 default encryption provides a way to set the default encryption behavior for an S3 bucket. You can st default encryption on a bucket so that all new objects are encrypted when they are stored in the bucket

- References:

- 1. https://docs.aws.amazon.com/AmazonS3/latest/dev/bucket-encryption.html

UPLOADING A FILE

CHANGING PERMISSIONS

CLOUD MONITORING

- I learn Amazon SNS(simple Notification Service), managed pup/sub message service, and amazon cloudwatch, a monitoring and management service.

- Task to need to completed

    - Launching an EC2 instance

    - Setting up SNS notification and subscription

    - Setting up a cloudwatch alarm

    - Deleting cloud resources

LAUNCHING AN EC2 INSTANCE

SETTING UP SNS NOTIFICATION AND SUBSCRIPTION

SETTING UP A CLOUDWATCH ALARM AND MONITORING
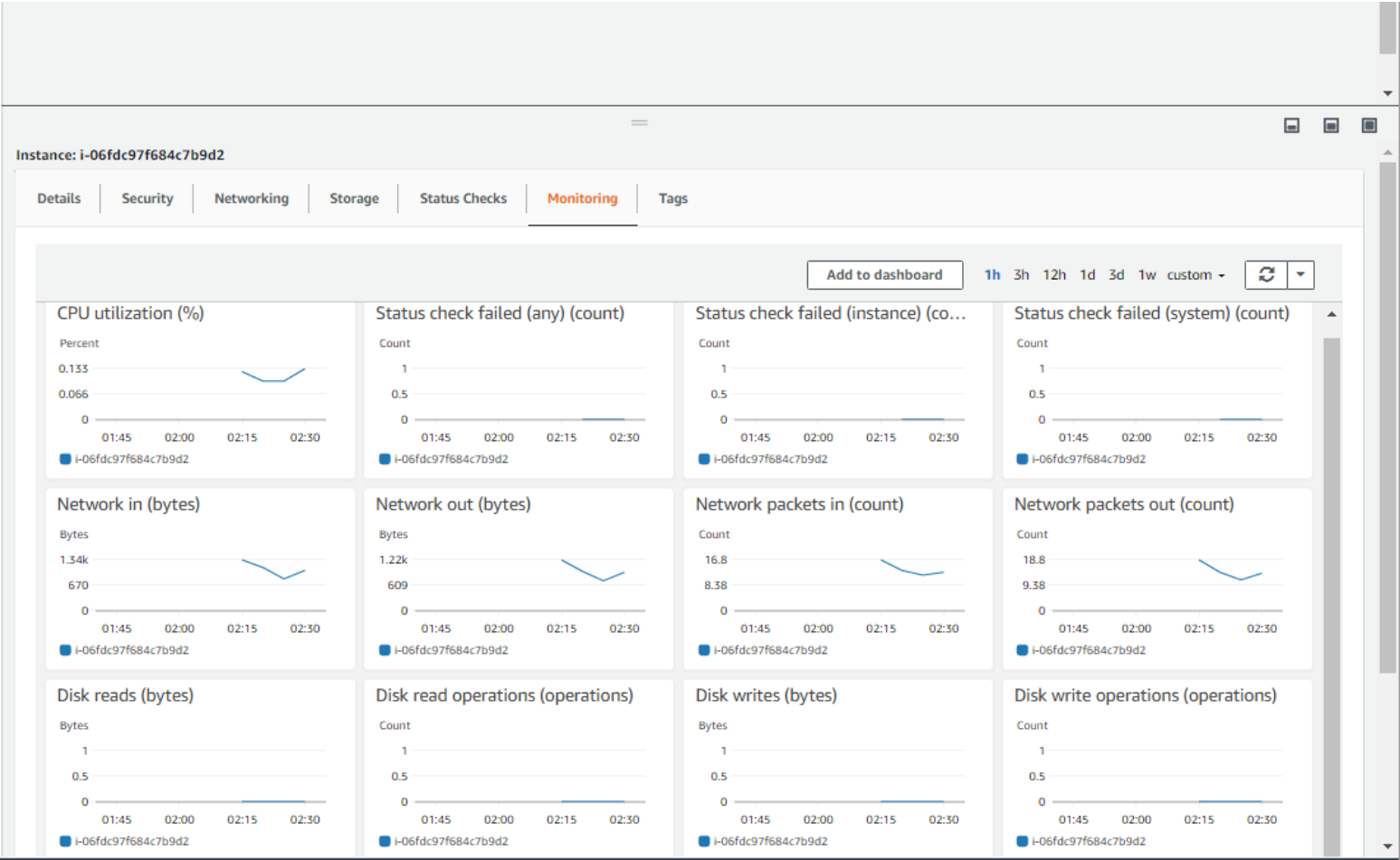
CHALLENGES/ SKILLS

- In class I had some challenges when AWS change some interface.

- Some time remotely accessing the cloud using ping

- I learn how to set up cloud

- I learn how to setup remote access cloud.

- How to cancel the cloud

- How to encrypted the data file

- How to setup alerts on important data.

CONCLUSION

- In this class I learn, I learn how to create amazon account, launching an EC2 instance connect to it. Adding another subnet and viewing subnets, connecting to instance using a key par and setting up key pair. Now I can create my storage cloud and keep data safe. And how to make it secure and keep it safe. Create a Bucket and upload my personal files. Change permissions who can get access to it. And setup an monitor and setup email alert for as soon as some one get access to my data.