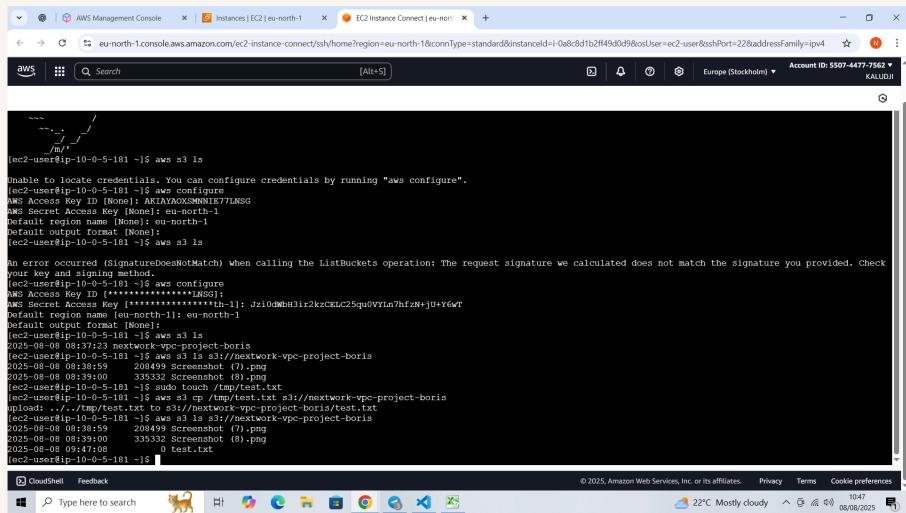




Access S3 from a VPC

N

Nchindo Boris



```
[ec2-user@ip-10-0-5-181 ~]$ aws s3 ls
Unable to locate credentials. You can configure credentials by running "aws configure".
[ec2-user@ip-10-0-5-181 ~]$ aws configure
AWS Access Key ID [None]: AKIAVAYOXSMMNIE77LN9G
AWS Secret Access Key [None]: eu-north-1
Default region name [eu-north-1]: eu-north-1
Default output format [None]:
[ec2-user@ip-10-0-5-181 ~]$ aws s3 ls
An error occurred (SignatureDoesNotMatch) when calling the ListBuckets operation: The request signature we calculated does not match the signature you provided. Check your key and signing method.
[ec2-user@ip-10-0-5-181 ~]$ aws configure
AWS Access Key ID [None]: AKIAVAYOXSMMNIE77LN9G
AWS Secret Access Key [*****]: JzI0dW083ir2KzCXLc25quUVYln7hf2n+jU+Y6wT
Default region name [eu-north-1]: eu-north-1
Default output format [None]:
[ec2-user@ip-10-0-5-181 ~]$ aws s3 ls
2025-08-08 08:37:23 nextwork-vpc-project-boris
[ec2-user@ip-10-0-5-181 ~]$ aws s3 ls s3://nextwork-vpc-project-boris
2025-08-08 08:38:59      208499 Screenshot (7).png
2025-08-08 08:39:00      208499 Screenshot (8).png
[ec2-user@ip-10-0-5-181 ~]$ sudo touch /tmp/test.txt
[ec2-user@ip-10-0-5-181 ~]$ aws s3 cp /tmp/test.txt s3://nextwork-vpc-project-boris
upload: ./tmp/test.txt to s3://nextwork-vpc-project-boris/test.txt
[ec2-user@ip-10-0-5-181 ~]$ aws s3 ls s3://nextwork-vpc-project-boris
2025-08-08 08:38:59      208499 Screenshot (7).png
2025-08-08 08:39:00      339332 Screenshot (8).png
[ec2-user@ip-10-0-5-181 ~]$
```



Introducing Today's Project!

What is Amazon VPC?

Amazon VPC is a service that lets you create your own isolated virtual network within the AWS cloud

How I used Amazon VPC in this project

I used Amazon VPC in this project to access an S3 bucket

One thing I didn't expect in this project was...

I did not expect this project to be as easy as I found it to be

This project took me...

It took me 50 minutes to complete this project



In the first part of my project...

Step 1 - Architecture set up

In this step, I am going to: - Create a VPC from scratch! - Launch an EC2 instance into your VPC.

Step 2 - Connect to my EC2 instance

In this step, I am going to Connect directly to your EC2 instance.

Step 3 - Set up access keys

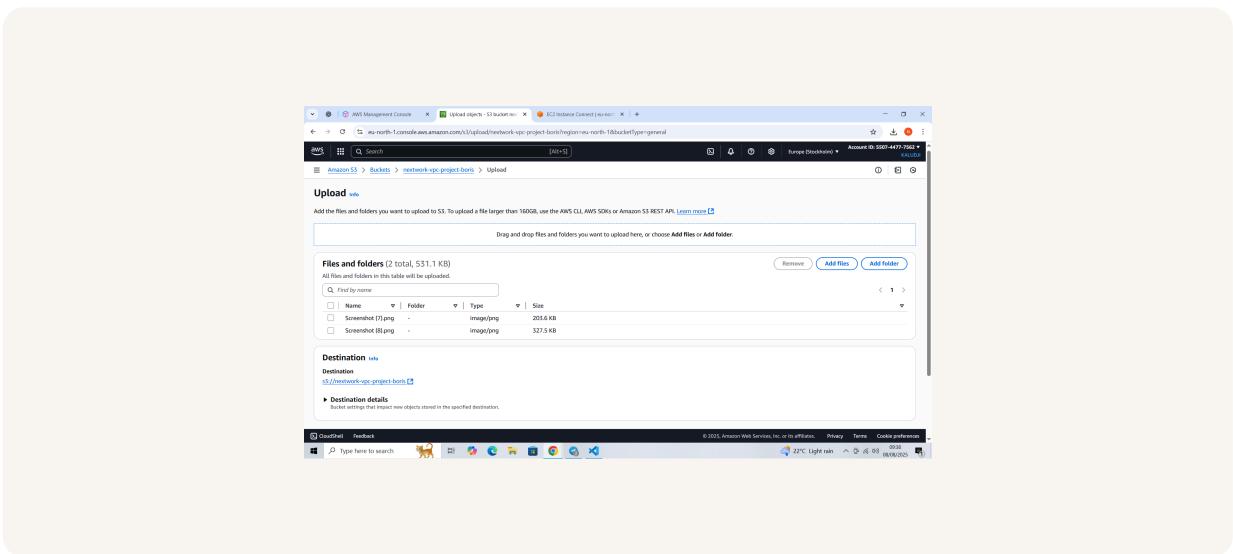
In this step, I am going to Give your EC2 instance access to your AWS environment.



Architecture set up

started my project by launching an EC2 instance

I also set up an S3 bucket with 2 files

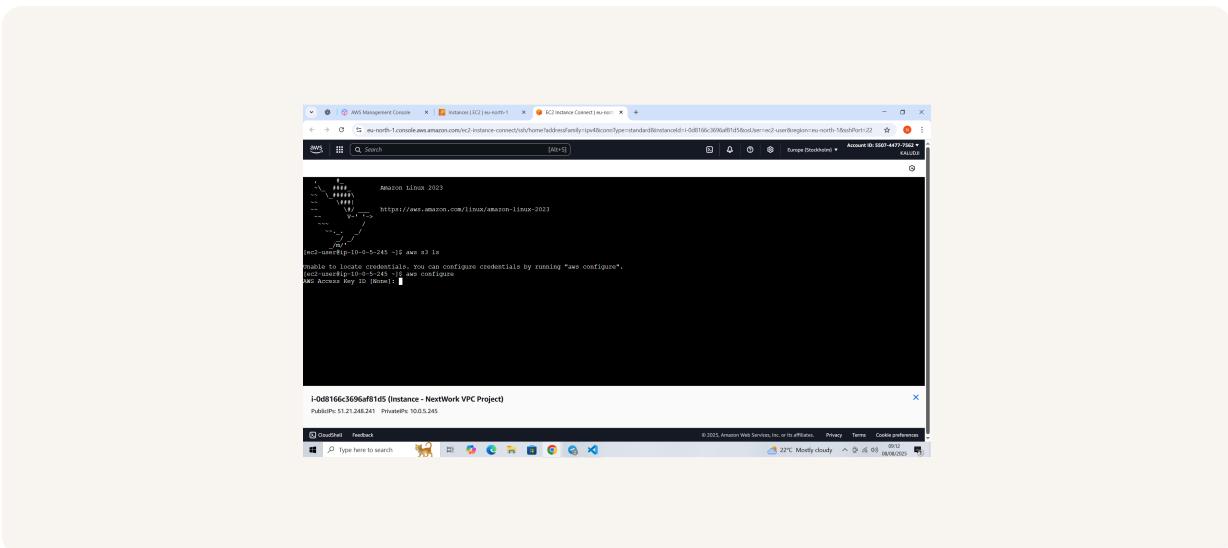


Running CLI commands

AWS CLI is special software that you install and run on your computer to control AWS services directly from the command line. I have access to AWS CLI because I have an AWS account and I need to run commands to interact with AWS services.

The first command I ran was aws s3 ls. This command is used to list the S3 buckets in my account

The second command I ran was aws configure. This command is used to set up your AWS CLI with my credentials and default settings so I can interact with AWS services from the command line.





Access keys

Credentials

To set up my EC2 instance to interact with my AWS environment, I configured AWS CLI in order to access it with an Access key and Secret access key

Access keys are a set of security credentials that allow access to my AWS account, for example, through the AWS CLI

The secret access key is like the password that pairs with your access key ID (your username). You need both to access AWS services.

Best practice

Although I'm using access keys in this project, a best practice alternative is to use IAM Roles (with Temporary Credentials)

In the second part of my project...

Step 4 - Set up an S3 bucket

In this step, I am going to Launch a bucket in Amazon S3.

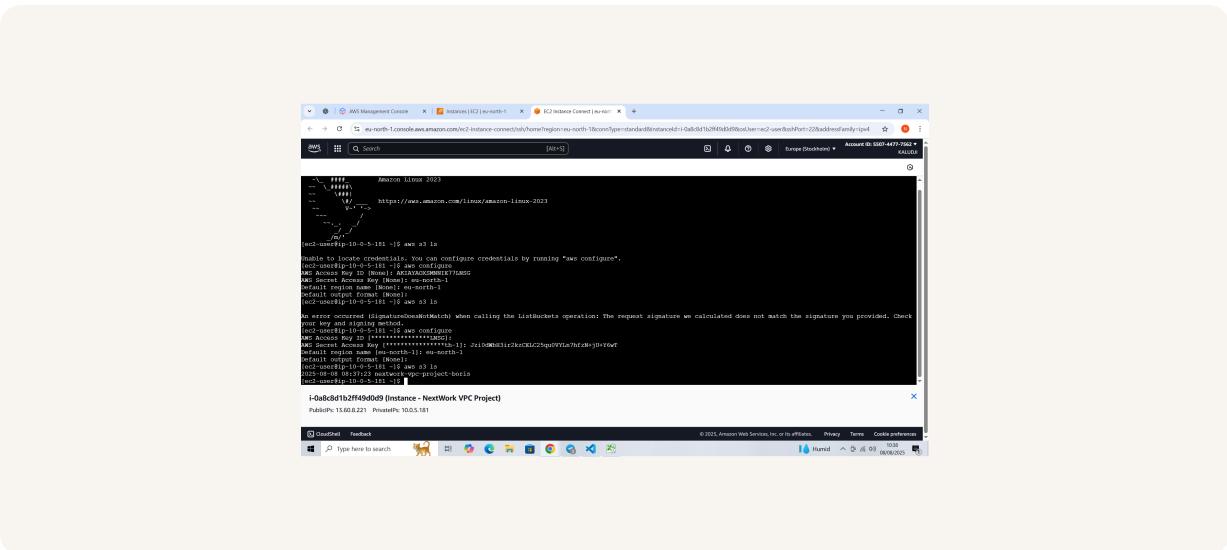
Step 5 - Connecting to my S3 bucket

In this step, I am going to: - Head back to my EC2 instance. - Get my EC2 instance to interact with my S3 bucket.

Connecting to my S3 bucket

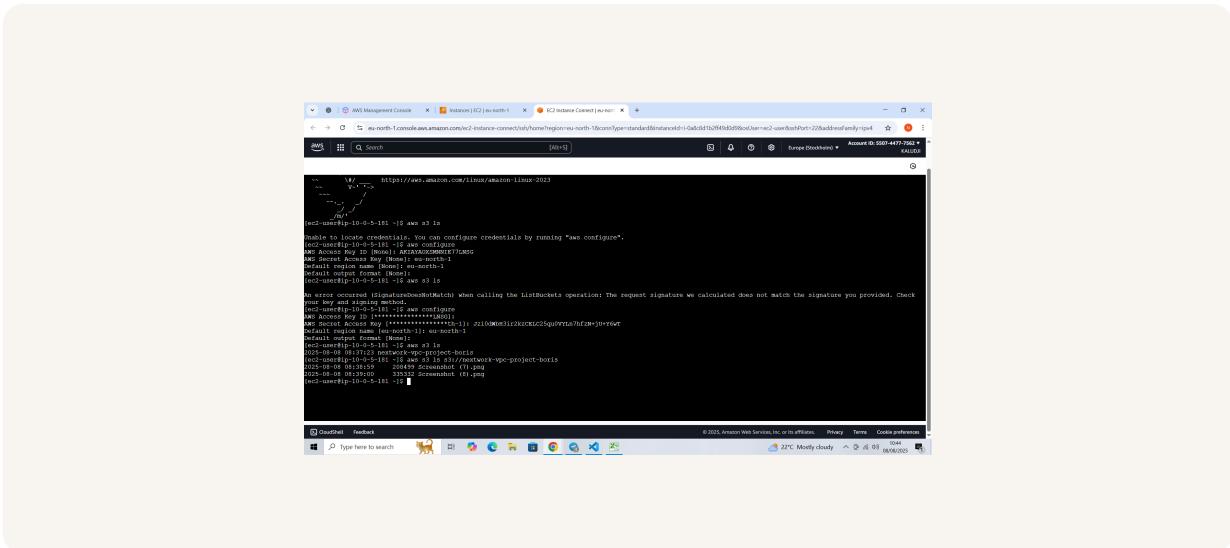
The first command I ran was aws s3 ls. This command is used to to list the S3 buckets in my account

When I ran the command... again, the terminal responded with 2025-08-08 08:37:23 nextwork-vpc-project-boris This indicated my list of S3 buckets



Connecting to my S3 bucket

Another CLI command I ran was aws s3 ls s3://nextwork-vpc-project-boris. which returned information about the files in my s3 bucket



```
aws s3 ls s3://nextwork-vpc-project-boris
2025-08-08 08:19:00    355322 Screenshot (8).png
```



Uploading objects to S3

To upload a new file to my bucket, I first ran the command `sudo touch /tmp/test.txt`. This command creates to create a blank .txt file in your EC2 instance.

The second command I ran was `aws s3 cp /tmp/test.txt s3://nextwork-vpc-project-boris` This command will to upload that file into my bucket

The third command I ran was `aws s3 ls s3://nextwork-vpc-project-boris`. which validated that there is an empty file `test.txt` with no data, it has 0 bytes.

The screenshot shows a terminal window within the AWS Management Console. The user is running several commands on an EC2 instance:

- `aws s3 ls`: Lists the contents of the default bucket, showing an empty directory.
- `aws configure`: Configures AWS CLI with access key ID and secret access key.
- `aws s3 cp /tmp/test.txt s3://nextwork-vpc-project-boris`: Uploads the `test.txt` file from the local temporary directory to the specified S3 bucket.
- `aws s3 ls s3://nextwork-vpc-project-boris`: Lists the contents of the uploaded bucket, confirming the presence of the `test.txt` file.

The terminal output shows the file was uploaded successfully with 0 bytes.



nextwork.org

The place to learn & showcase your skills

Check out nextwork.org for more projects

