

Atria Institute of Technology



Department of Information Science and Engineering

Big Data Analytics (18CS72)

Assignment-1

SUBMITTED BY

Name: SHEETAL V

USN:1AT20IS086

Section: B

Submission Date: 29-12-2023

COURSE HANDLING FACULTY NAME:

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Sl. No	Description
1	1. create an EC2 Linux instance in AWS Cloud /Any cloud INSTANCE NAME - YOUR NAME INSTANCE TYPE - t2.micro/any other also. key pair name- your name storage - 10 GB Take the screenshot of instance running status Mention the private IP address and Public IP address. (Execute this program/concept and take a screenshot of the output)
2	Execute the basic Linux commands/ simple program on the instance (Execute this program and take a screenshot of the output)
3	Create the GitHub Account with your credentials, Same things stored in public repository in Github. Share the assignment in github link.

Instance Creation-01

SCREENSHOTS OF AWS INSTANCE

Instance: i-021dd93bd5ff54be6 (Sheetal)

Stop protection Disabled	x86_64 Launch time Tue Dec 19 2023 11:33:54 GMT+0530 (India Standard Time) (44 minutes)	AMI location amazon/al2023-ami-2023.3.20231218.0-kernel-6.1-x86_64
Instance auto-recovery Default	Lifecycle normal	Stop-hibernate behavior Disabled
AMI Launch index 0	Key pair assigned at launch SheetalV	State transition reason -

- Instance:
i-021dd93bd5ff54be6 (Sheetal)
- Instance ID:
i-021dd93bd5ff54be6 (Sheetal)
- Public IPv4 address:
16.170.215.248
- Private IPv4 addresses:
172.31.37.169
- Instance state:
Running

SCREENSHOTS OF AWS INSTANCE

EC2 Dashboard

EC2 Global View

Events

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Instances

Instance Types

Launch Templates

Spot Requests

Savings Plans

Reserved Instances

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Capacity Reservations

New

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AMIs

AMI Catalog

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Instance summary for i-021dd93bd5ff54be6 (Sheetal) Info

Updated less than a minute ago

Refresh

Connect

Instance state ▼

Actions ▼

Instance ID

i-021dd93bd5ff54be6 (Sheetal)

IPv6 address

-

Hostname type

IP name: ip-172-31-37-169.eu-north-1.compute.internal

Answer private resource DNS name IPv4 (A)

-

Auto-assigned IP address

16.170.215.248 [Public IP]

IAM Role

-

IMDSv2

-

Public IPv4 address

16.170.215.248 [open address](#)

Instance state

Running

Private IP DNS name (IPv4 only)

ip-172-31-37-169.eu-north-1.compute.internal

Instance type

t3.micro

VPC ID

vpc-073166cd1cb331da0

Subnet ID

subnet-033618b1e1bef32ad

Private IPv4 addresses

172.31.37.169

Public IPv4 DNS

ec2-16-170-215-248.eu-north-1.compute.amazonaws.com [open address](#)

Elastic IP addresses

-

AWS Compute Optimizer finding

[Opt-in to AWS Compute Optimizer for recommendations.](#)
[Learn more](#)

Auto Scaling Group name

-

EC2 Dashboard

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AMI Catalog

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Details

Security

Networking

Storage

Status checks

Monitoring

Tags

▼ Instance details Info

Platform

Amazon Linux (Inferred)

Platform details

Linux/UNIX

Stop protection

Disabled

Instance auto-recovery

Default

AMI Launch index

0

Credit specification

unlimited

Usage operation

RunInstances

AMI ID

ami-03643cf1426c9b40b

AMI name

al2023-ami-2023.3.20231218.0-kernel-6.1-x86_64

Launch time

Tue Dec 19 2023 11:33:54 GMT+0530 (India Standard Time) (10 days)

Lifecycle

normal

Key pair assigned at launch

SheetalV

Kernel ID

-

RAM disk ID

-

Monitoring

disabled

Termination protection

Disabled

AMI location

amazon/al2023-ami-2023.3.20231218.0-kernel-6.1-x86_64

Stop-hibernate behavior

Disabled

State transition reason

-

State transition message

-

Owner

005635653935

EC2 Dashboard

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Capacity Reservations

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RunInstances

Enclaves Support

Disabled

Allow tags in instance metadata

Disabled

▼ Host and placement group Info

Host ID

—

Host resource group name

—

Virtualization type

hvm

Number of vCPUs

2

▼ Capacity reservation Info

Capacity Reservation ID

—

Boot mode

uefi-preferred

Use RBN as guest OS hostname

Disabled

Affinity

—

Tenancy

default

Reservation

r-076ec8f4602ee26ac

Capacity Reservation setting

open

005635653935

Current instance boot mode

uefi

Answer RBN DNS hostname IPv4

Enabled

Placement group

—

Placement group ID

—

Partition number

—

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Instance summary for i-021dd93bd5ff54be6 (Sheetal) Info

Updated less than a minute ago

Connect

Instance state ▼

Actions ▼

Instance ID

i-021dd93bd5ff54be6 (Sheetal)

Public IPv4 address

16.170.215.248 [open address](#)

Private IPv4 addresses

172.31.37.169

IPv6 address

—

Instance state

Running

Public IPv4 DNS

ec2-16-170-215-248.eu-north-1.compute.amazonaws.com [open address](#)

Hostname type

IP name: ip-172-31-37-169.eu-north-1.compute.internal

Private IP DNS name (IPv4 only)

ip-172-31-37-169.eu-north-1.compute.internal

Answer private resource DNS name

IPv4 (A)

Elastic IP addresses

—

Auto-assigned IP address

16.170.215.248 [Public IP]

Instance type

t3.micro

AWS Compute Optimizer finding

[Opt-in to AWS Compute Optimizer for recommendations.](#)

[Learn more](#)

IAM Role

—

VPC ID

vpc-073166cd1cb331da0

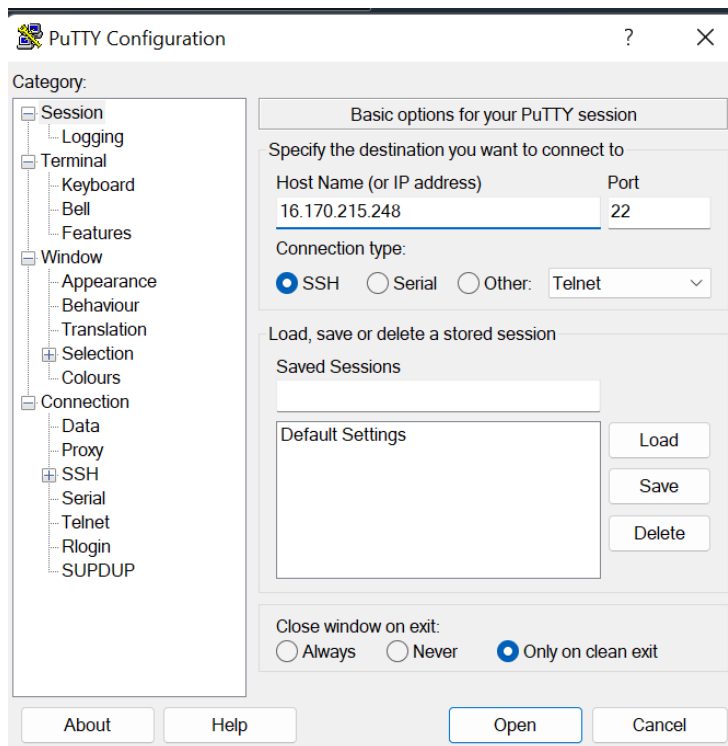
Subnet ID

subnet-033618b1e1bef32ad

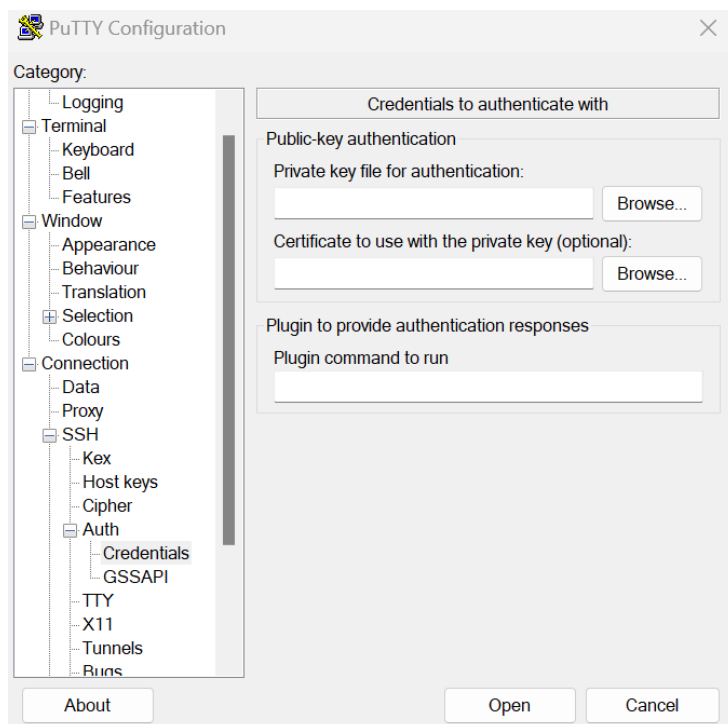
Auto Scaling Group name

—

SCREENSHOTS FROM puTTY-Setup

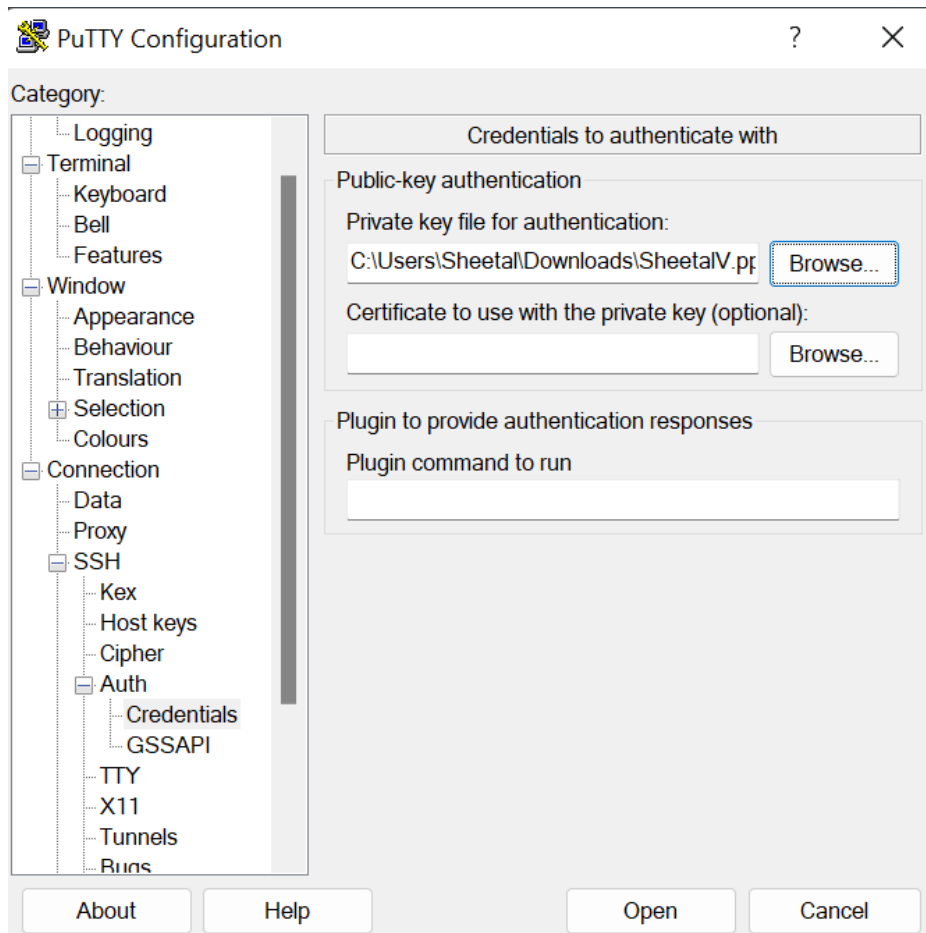


In putty under host name enter the Public IPv4 address.

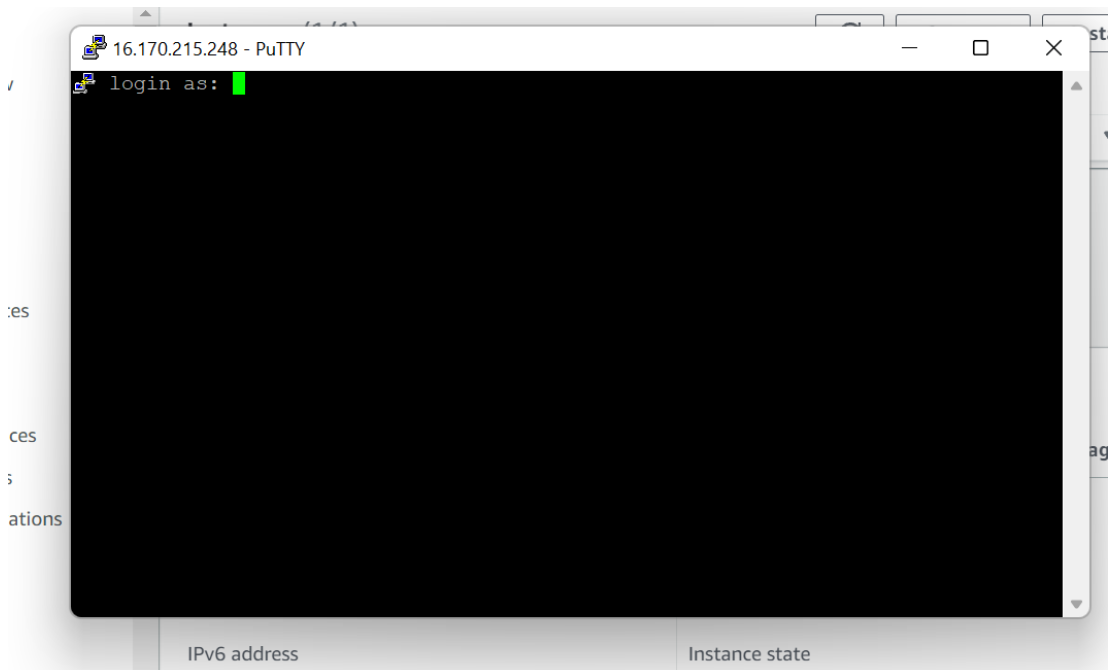


Under Auth in private key file for authentication browse and add the

PuTTY Private Key File (.ppk) named richahs-linux.



After browsing click on Open button



This directs us to this screen now enter the User name that is ec2-user

SCREENSHOTS FROM puTTY-commands

```
[ec2-user@ip-172-31-37-169:~  
login as: ec2-user  
Authenticating with public key "SheetalV"  
  
#  
_/_##### Amazon Linux 2023  
~~_\#####\  
~~_\#####\  
~~_\###|  
~~~~\#/ https://aws.amazon.com/linux/amazon-linux-2023  
~~ V~' '~>  
~~~~  
~~~~_  
~~~~_/_____  
~~~~_/m/'
```

```
[ec2-user@ip-172-31-37-169 ~]$ pwd  
/home/ec2-user  
[ec2-user@ip-172-31-37-169 ~]$ mkdir  
mkdir: missing operand  
Try 'mkdir --help' for more information.  
[ec2-user@ip-172-31-37-169 ~]$ mkdir new_dir  
[ec2-user@ip-172-31-37-169 ~]$ ls  
new_dir  
[ec2-user@ip-172-31-37-169 ~]$ touch new_file.txt  
[ec2-user@ip-172-31-37-169 ~]$ ls  
new_dir new_file.txt  
[ec2-user@ip-172-31-37-169 ~]$ touch file.txt
```

- pwd:

pwd is used to present working directory, this gave the output
/home/ec2-user

- **mkdir:**

The **mkdir** (**make directory**) command creates a new directory in the provided location. I have created a directory called `new_directory`.

- 1s:

The `ls` command (**list**) prints a list of the current directory's contents. Therefore we got the directory created display as output.

```
ec2-user@ip-172-31-37-169:~  
mkdir: missing operand  
Try 'mkdir --help' for more information.  
[ec2-user@ip-172-31-37-169 ~]$ mkdir new_dir  
[ec2-user@ip-172-31-37-169 ~]$ ls  
new_dir  
[ec2-user@ip-172-31-37-169 ~]$ touch new_file.txt  
[ec2-user@ip-172-31-37-169 ~]$ ls  
new_dir  new_file.txt  
[ec2-user@ip-172-31-37-169 ~]$ touch file.txt  
[ec2-user@ip-172-31-37-169 ~]$ ls  
file.txt  new_dir  new_file.txt  
[ec2-user@ip-172-31-37-169 ~]$ cat new_file.txt  
[ec2-user@ip-172-31-37-169 ~]$ echo "hello this is the content in new_file.txt" >> new_file.txt  
[ec2-user@ip-172-31-37-169 ~]$ cat new_file.txt  
hello this is the content in new_file.txt  
[ec2-user@ip-172-31-37-169 ~]$ cat file.txt  
[ec2-user@ip-172-31-37-169 ~]$ cp new_file.txt file.txt  
[ec2-user@ip-172-31-37-169 ~]$ cat file.txt  
hello this is the content in new_file.txt  
[ec2-user@ip-172-31-37-169 ~]$ echo "after copying content from new_file i am adding a new line into file.txt" >>file.txt  
[ec2-user@ip-172-31-37-169 ~]$ cat file.txt  
hello this is the content in new_file.txt  
after copying content from new_file i am adding a new line into file.txt  
[ec2-user@ip-172-31-37-169 ~]$
```

- touch:
 - The touch command's primary purpose is to modify an existing file's timestamp. The command creates an empty file if it does not exist. Due to this effect, touch is also a quick way to make a new file (or a batch of files).
 - Here I have created a txt file called new_file first then a second txt file called file.txt.
 - Using ls command we can find where these files have been created .
- cat:
 - The cat command (concatenate) displays the contents of a file in the terminal (standard output or stdout).
 - To use the command, provide a file name from the current directory.
 - Here I provide the txt file called new_file.txt.
- echo:
 - The echo command to print arguments to the terminal.
 - Here I have used echo "hello this is the content in new_file.txt".
 - The >> operator redirects output to a file.

Later I use cat to find the content in new_file.txt. Therefore we can see that “hello this is the content in new_file.txt” has been added to new_file.txt

```
file.txt new_file.txt new_file.txt
[ec2-user@ip-172-31-44-5 ~]$ cat new_file.txt
[ec2-user@ip-172-31-44-5 ~]$ echo "hello this is the content in new_file.txt" >> new_file.txt
[ec2-user@ip-172-31-44-5 ~]$ cat new_file.txt
hello this is the content in new_file.txt
[ec2-user@ip-172-31-44-5 ~]$ cat file.txt
[ec2-user@ip-172-31-44-5 ~]$ cp new_file.txt file.txt
[ec2-user@ip-172-31-44-5 ~]$ cat file.txt
hello this is the content in new_file.txt
[ec2-user@ip-172-31-44-5 ~]$ echo "after copying contents from new file i am adding a new line into file.txt" >> file.txt
[ec2-user@ip-172-31-44-5 ~]$ cat file.txt
hello this is the content in new_file.txt
after copying contents from new file i am adding a new line into file.txt
[ec2-user@ip-172-31-44-5 ~]$
```

cat file.txt is executed to show that there is no content in file.txt.

- cp:
 - The main way to copy files and directories in Linux is through the cp (copy) command. cp <source file> <target file>.
 - The source and target files must have different names since the command copies in the same directory. Provide a path before the file name to copy to another location.
 - Here we are copying the content of new_file.txt into file.txt using cp [cp new_file.txt file.txt]
 - Then when we use cat on file.txt it shows “hello this is the content in new_file.txt” so content is successfully copied.
 - Now we make use of echo and >> to add a new line in file.txt i.e “after copying contents from new_file I am adding a new line into file.txt”.
 - Now when cat is used on file.txt both are lines are given as output.

Github link:

<https://github.com/sheetalv18/Bda-assignment.git>