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School of Computer Science, Engineering and Applications(SCSEA)
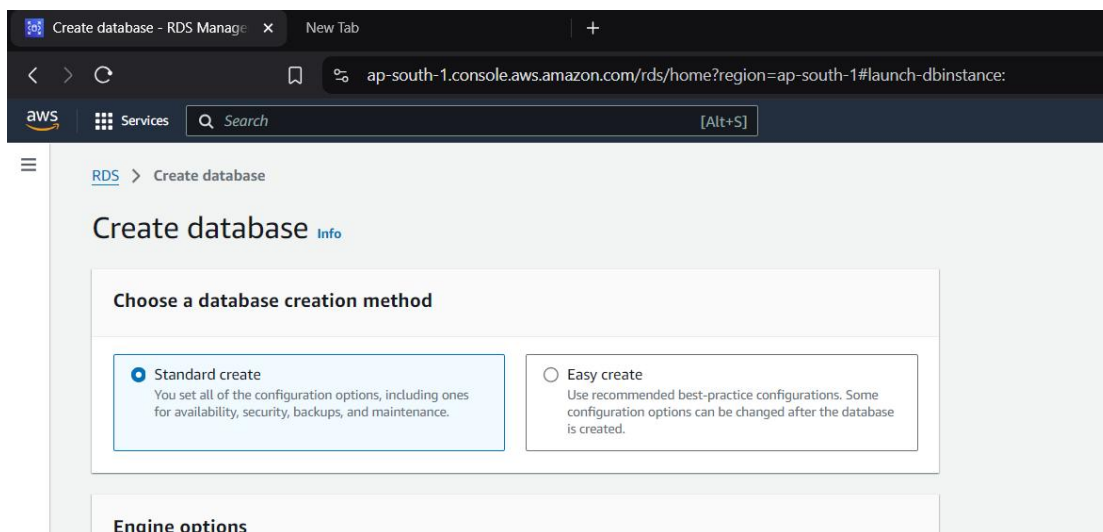## B.C.A. TY (SCSEA)
Subject: Advance Cloud Computing(ACC)

Name of the Student: **Shrusht Krishna Shrivastav**   **PRN: 20220801024**
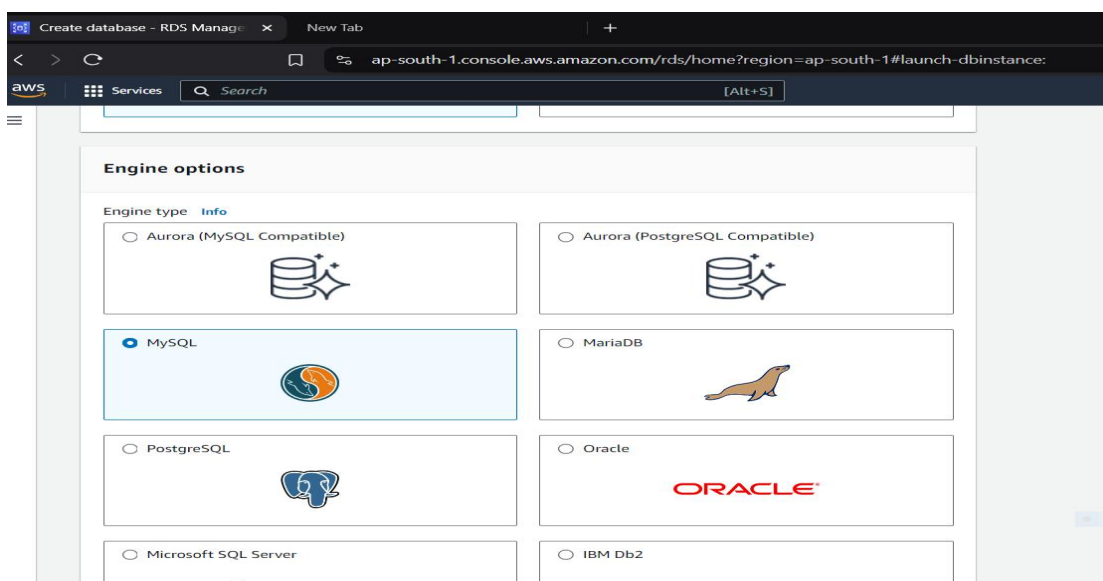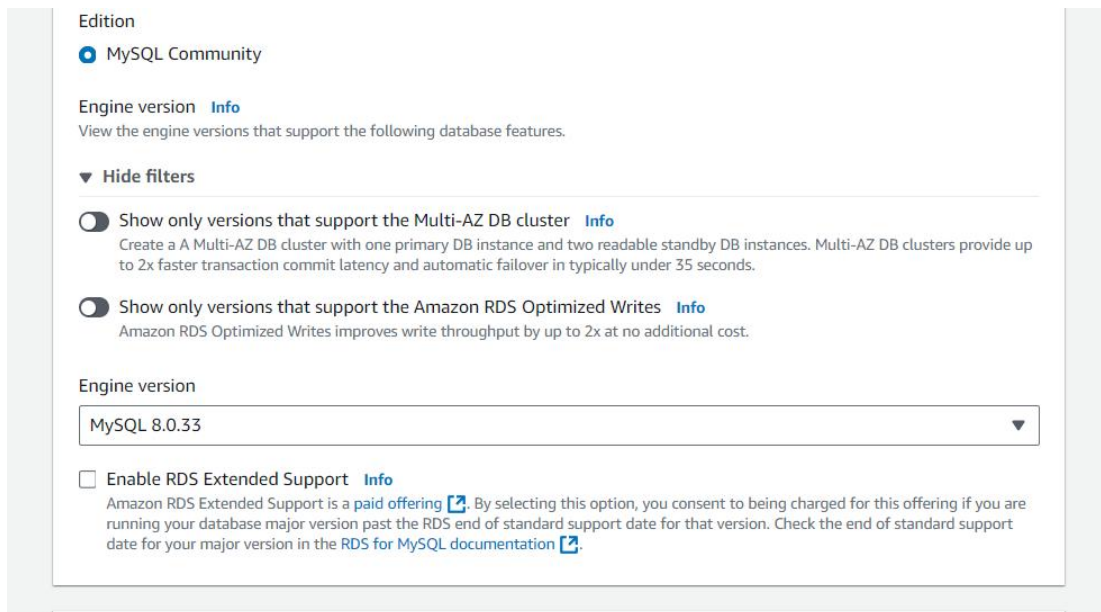
Title of Practicle :   Encrypt an Unencrypted RDS DB Instance

STEP1:   CREATE AN UNENCRYPTED DATABASE

Create a standard database

Select MYSQL as the engine

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Engine version: 8.0.33

select free-tier template

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Give the user name and password

(username: admin , Password: rdsdemo1)

Instance class: db.t3.micro

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Ensure public access is 'yes' (enabled)
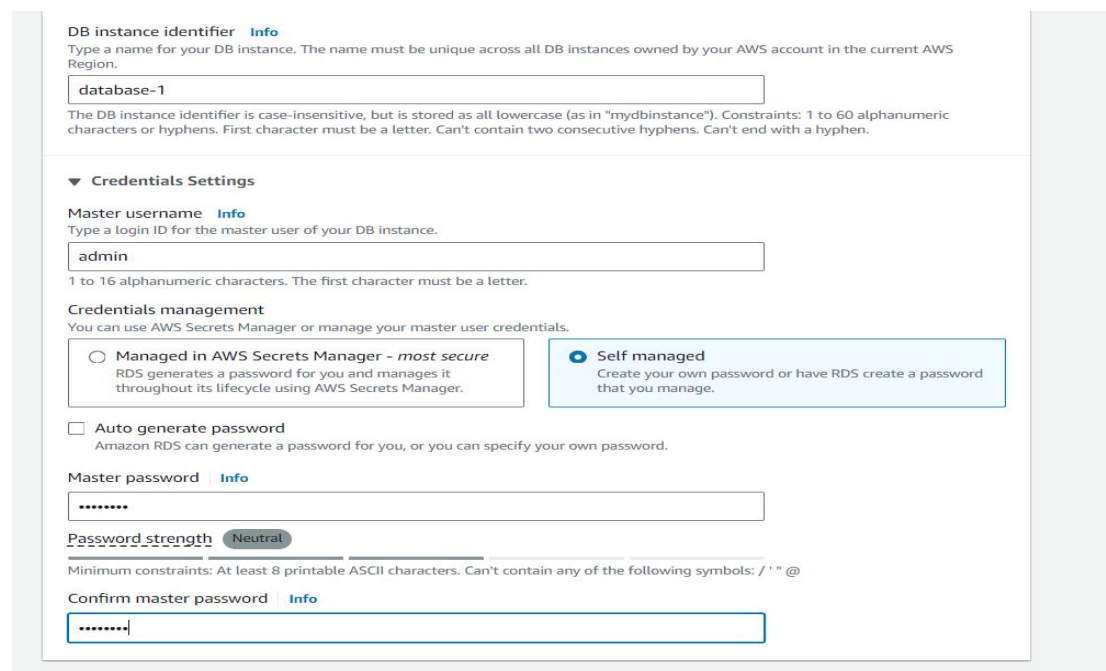
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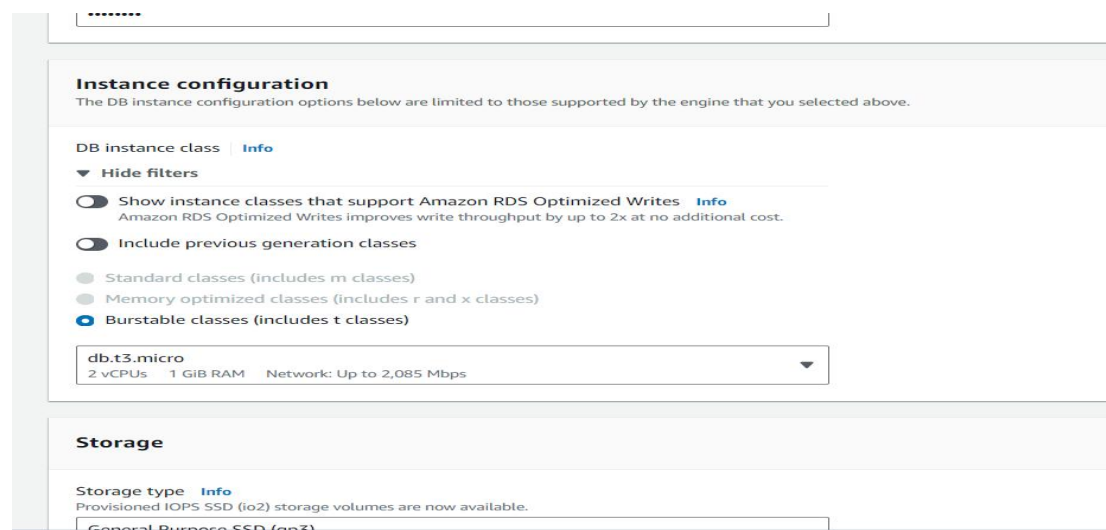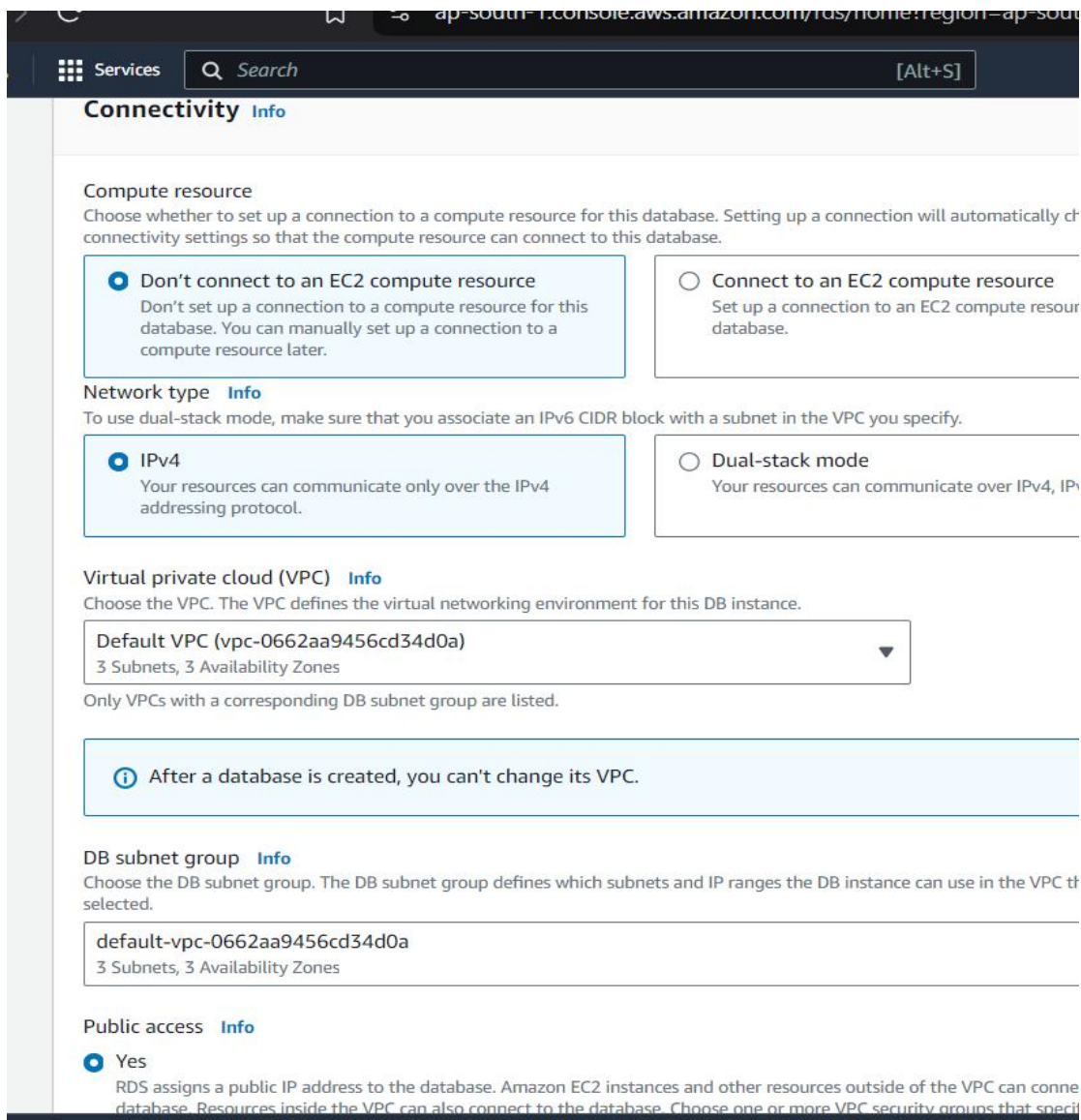**Title of Practicle :**   Encrypt an Unencrypted RDS DB Instance

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To create unenceypted database do changes in 'additional configuration'

▼ Additional configuration
Database options, encryption turned off, backup turned on, backtrack turned off, maintenance, CloudWatch Logs, delete protection turned off.

Database options

Initial database name   Info

Ensure encryption is not enabled so uncheck the box

Backup retention period   Info
The number of days (1-35) for which automatic backups are kept.

[1 ▼]   day

Backup window   Info
The daily time range (in UTC) during which RDS takes automated backups.
○ Choose a window
● No preference
☑ Copy tags to snapshots

Backup replication   Info
☐ Enable replication in another AWS Region
  Enabling replication automatically creates backups of your DB instance in the selected Region, for disaster recovery, in addition to the current Region.

Encryption
☐ Enable encryption
  Choose to encrypt the given instance. Master key IDs and aliases appear in the list after they have been created using the AWS Key Management Service console. **Info**

Log exports

Finally create the database (unencrypted one.)

cro, db.t3.micro or db.t4g.micro Instance.

ser-initiated DB Snapshots.

use exceeds the free usage tiers, you simply pay standard, pay-as–
)S Pricing page. ☐

all of the necessary rights for any third-party products or services

Cancel   **Create database**

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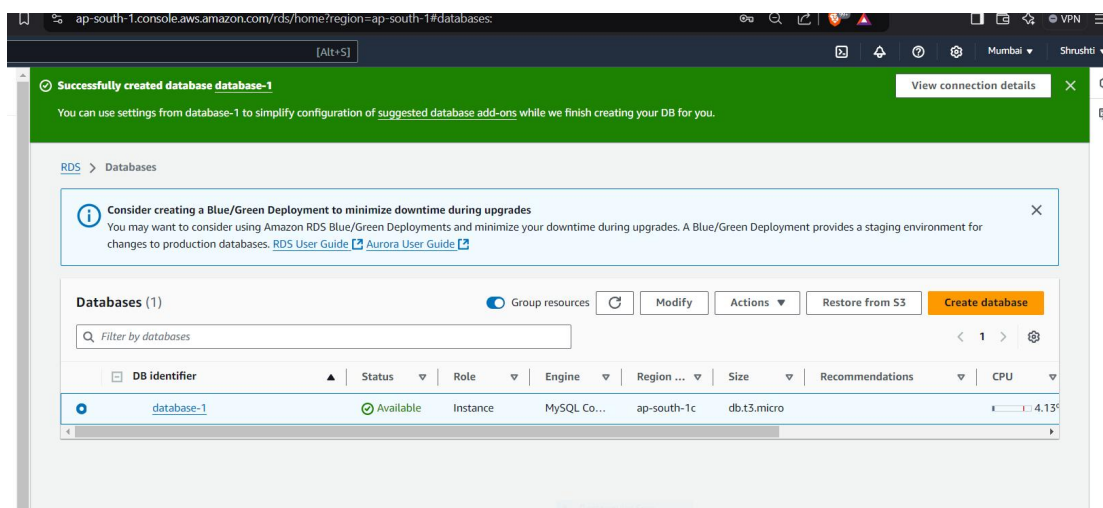
Title of Practicle : Encrypt an Unencrypted RDS DB Instance

Ensure encryption is 'not-enabled' in configuration after creation

Wait until the database is created and active
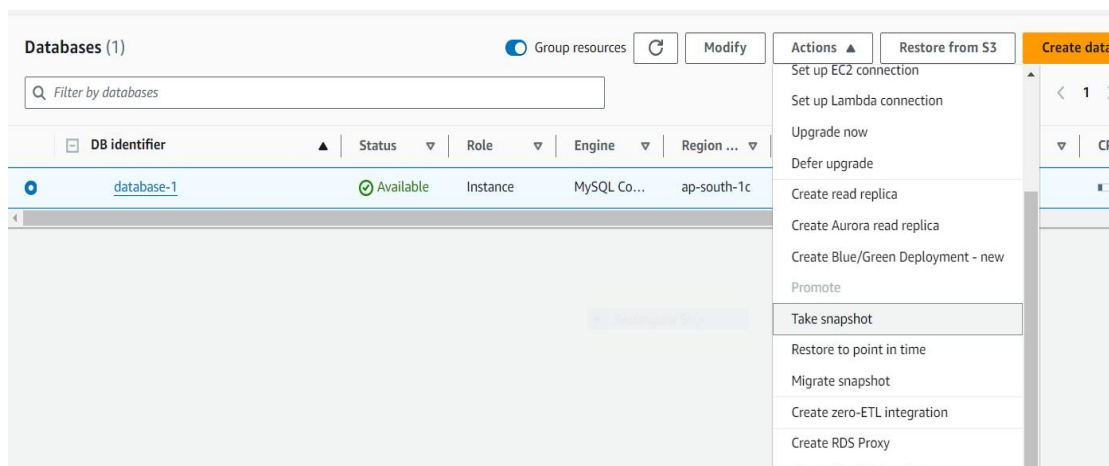
Name of the Student: **Shrusht Krishna Shrivastav**   **PRN: 20220801024**

Title of Practicle :   Encrypt an Unencrypted RDS DB Instance

STEP2:   CREATE A SNAPSHOT OF UNENCRYPTED DATABASE

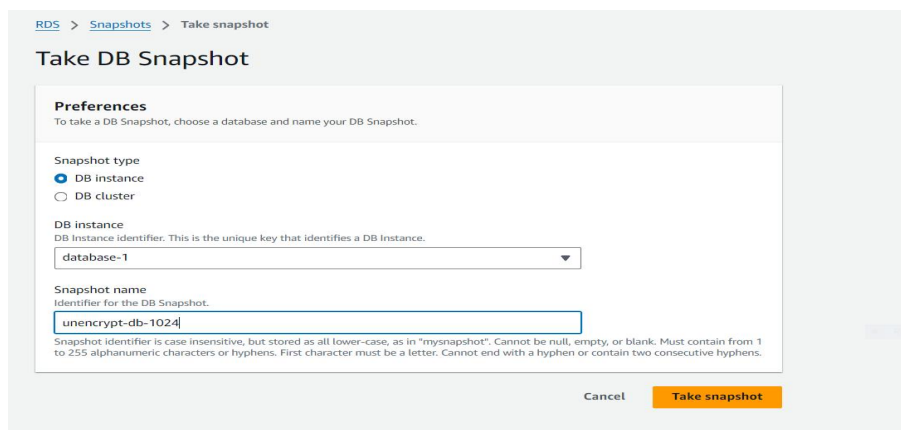(snapshot of unencrypted database is always unencrypted)

   A)Steps to create snapshot of this database(unencrypted database)--

Type:DB instance

Select the database created (unencrypted)

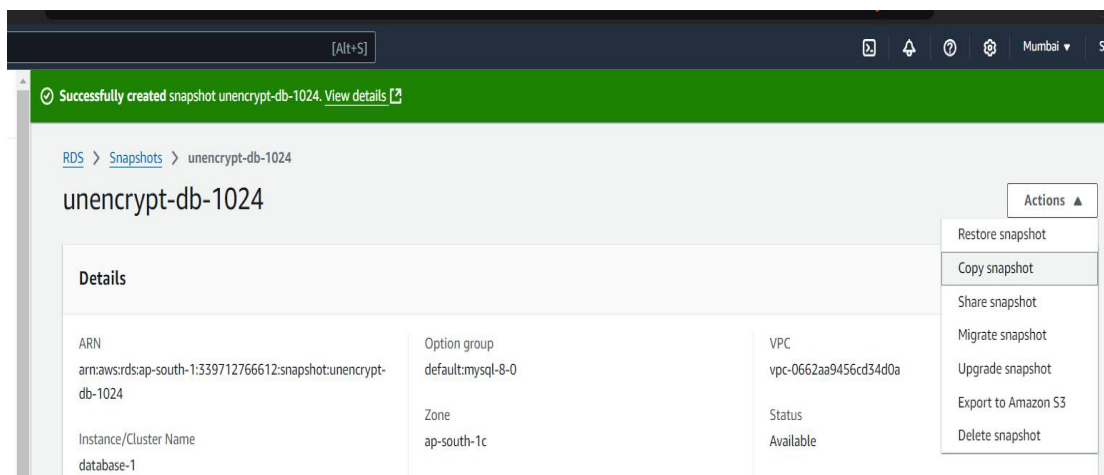Name this snapshot(this is snapshot of unencrypted databse so it will be unencrypted onlyu)

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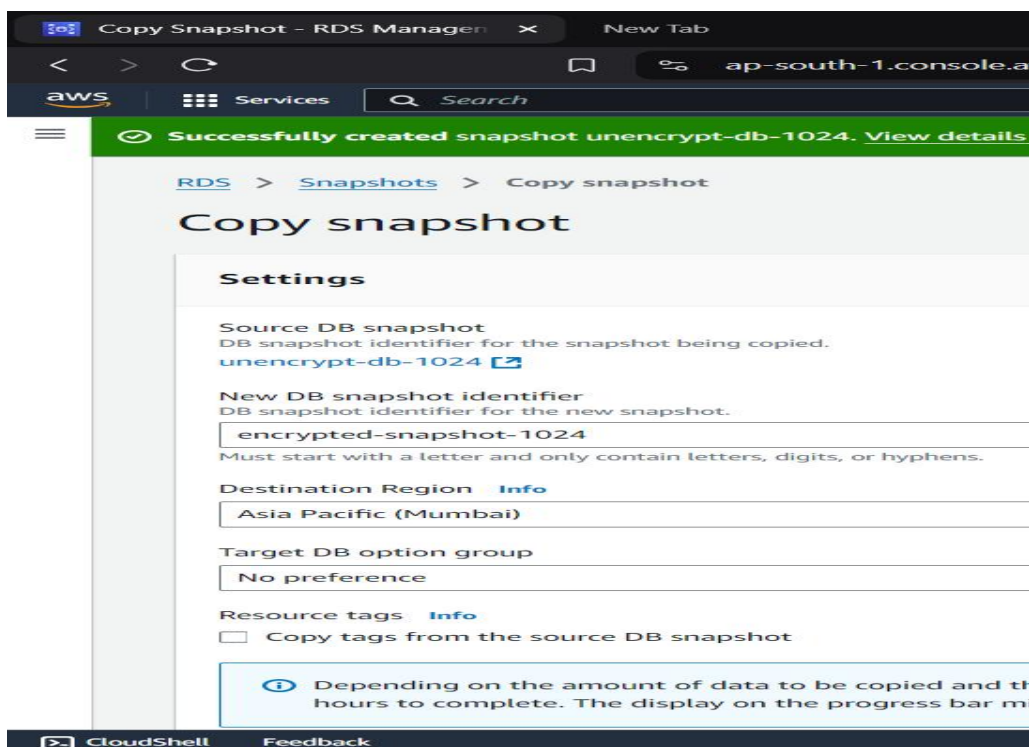
Name of the Student: **Shrusht Krishna Shrivastav**   PRN: 20220801024

Title of Practicle :   Encrypt an Unencrypted RDS DB Instance

B)create a copy of that snapshot to do changes--Make a copy of this snapshot (to make changes and encrypt it.)

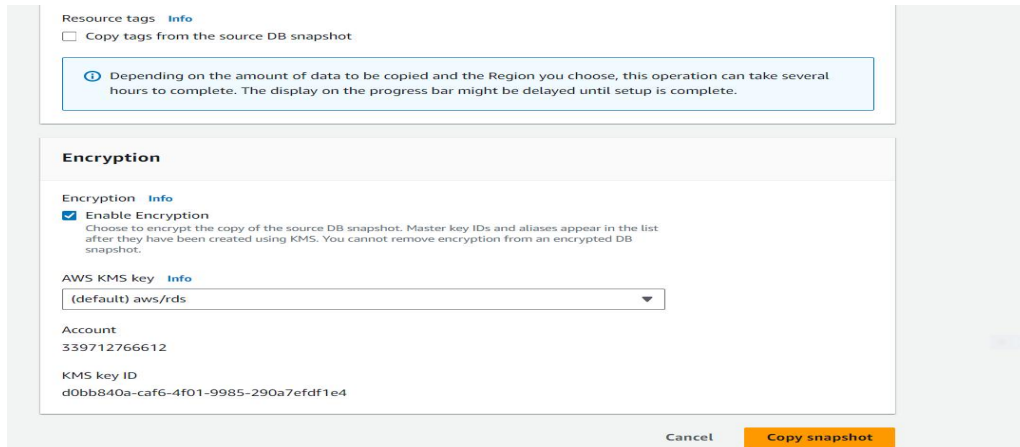Name this encrypted snapshot: encrypted-snapshot-1024 ,Select region: mumbai

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Title of Practicle :   Encrypt an Unencrypted RDS DB Instance

Enable 'ENCRYPTION' in this to create an encrypted snapshot (so we can create an encrypted database from it)

Once the copy is created (this is encrypted snapshot I.e snapshot with encryption enabled), restore the snapshot to create database

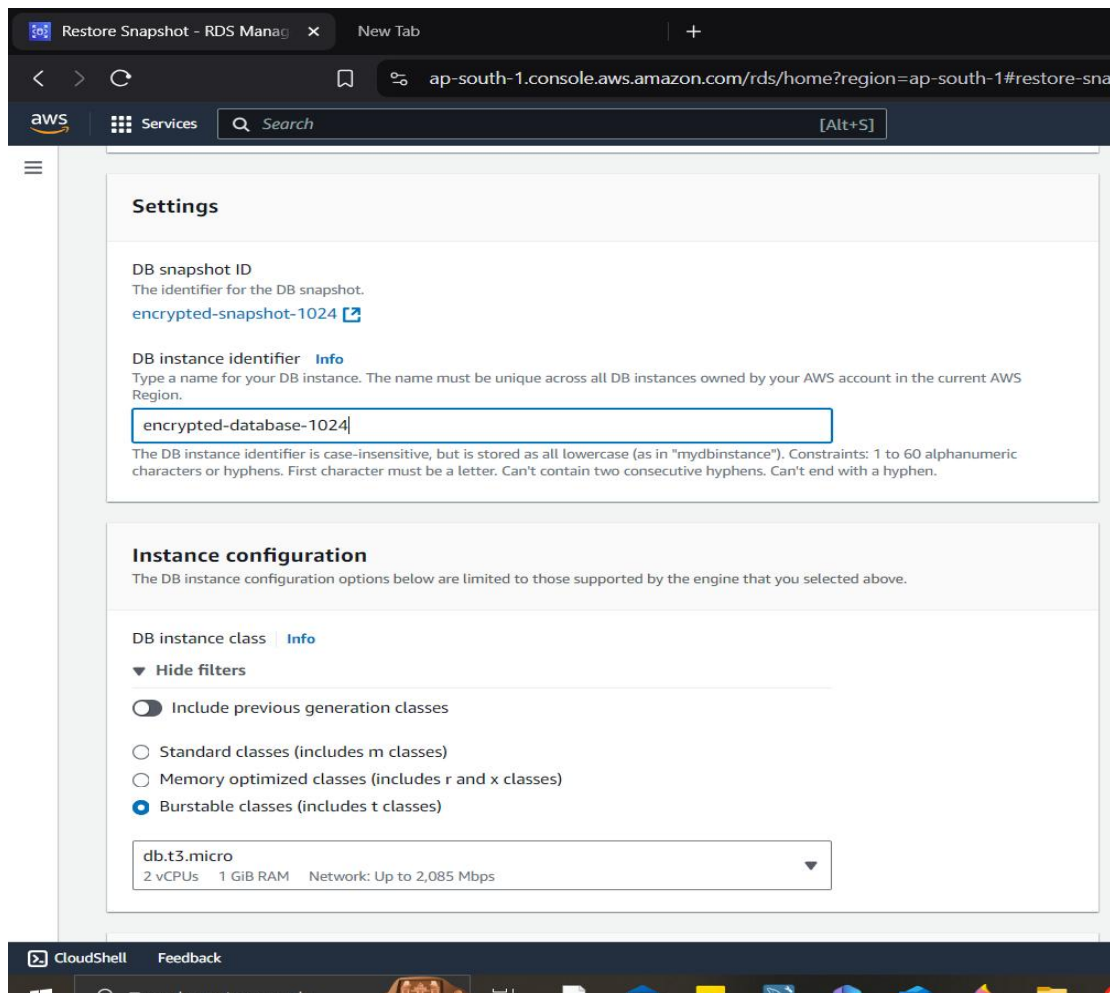**Name of the Student:** **Shrusht Krishna Shrivastav** **PRN: 20220801024**

Title of Practicle : Encrypt an Unencrypted RDS DB Instance

C)restore encrypted snapshot(create database with enabled encryption and same configuration as unencrypted one.)

NAME the new database instance: encrypted-database-1024

Instance configuration: burstable classes

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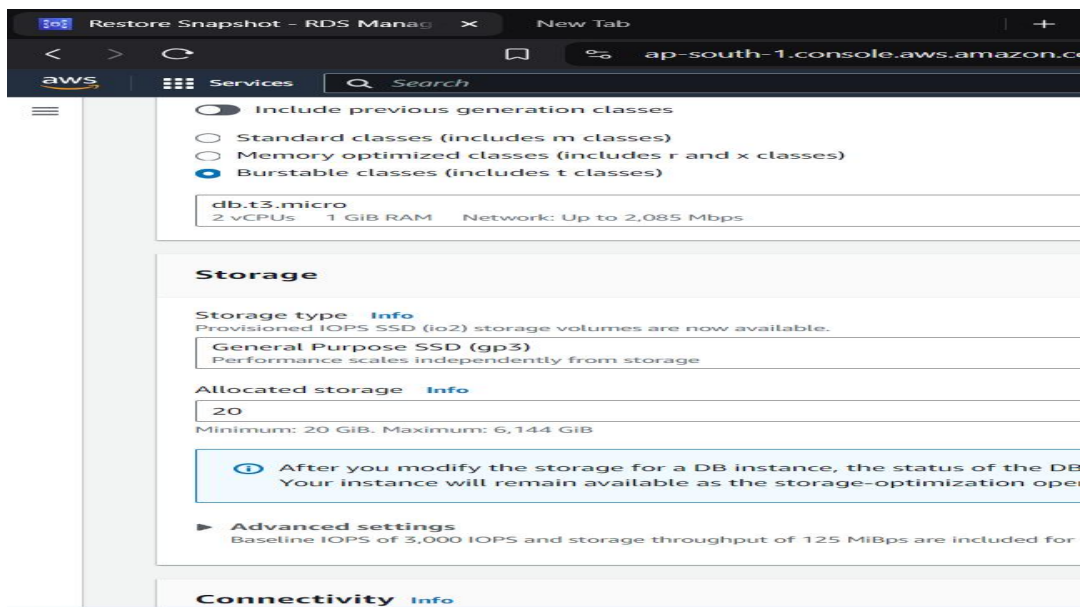## B.C.A. TY (SCSEA)
Subject: Advance Cloud Computing(ACC)
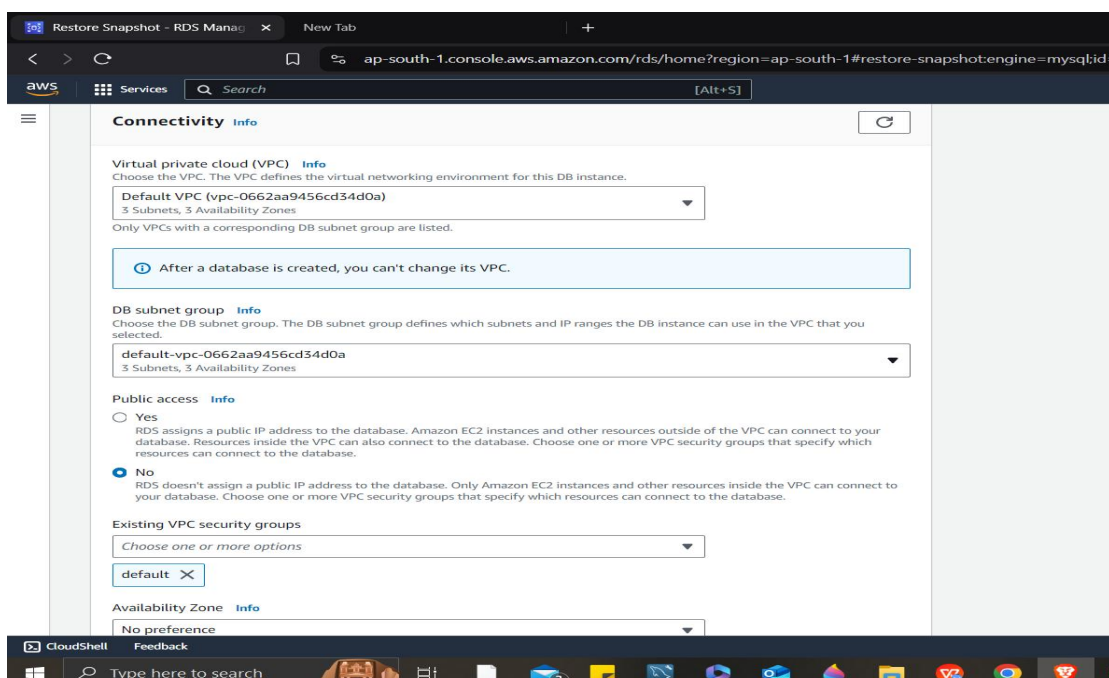
Name of the Student: **Shrusht Krishna Shrivastav** **PRN:** **20220801024**

Title of Practicle : Encrypt an Unencrypted RDS DB Instance

NO CHANGES IN STORAGE

In connectivity ensure public access is 'no'

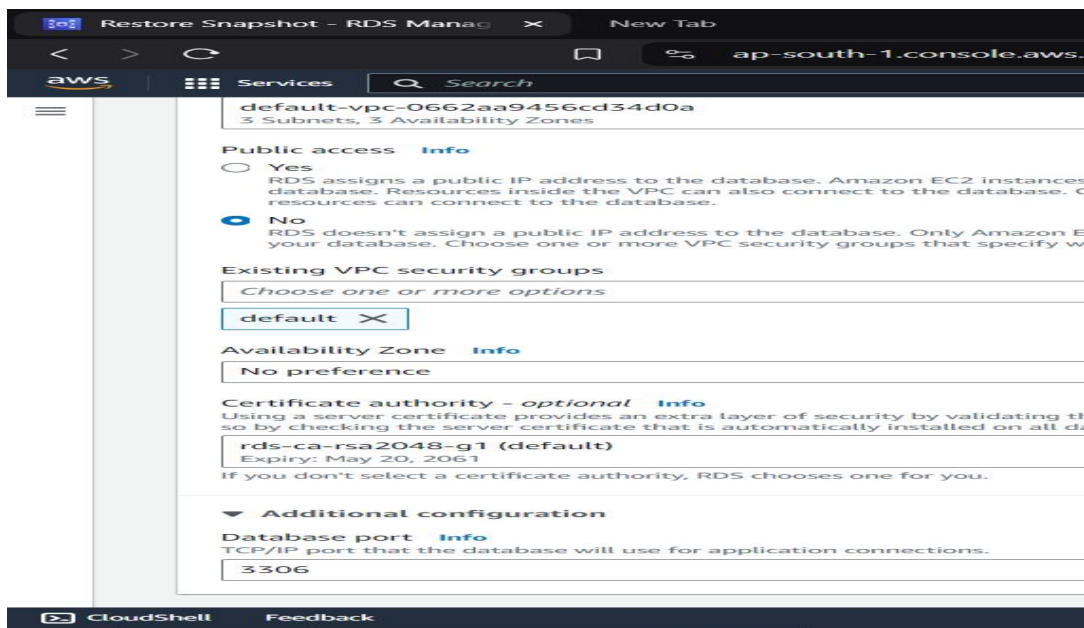# School of Computer Science, Engineering and Applications(SCSEA)
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Name of the Student: **Shrusht Krishna Shrivastav** **PRN:** **20220801024**
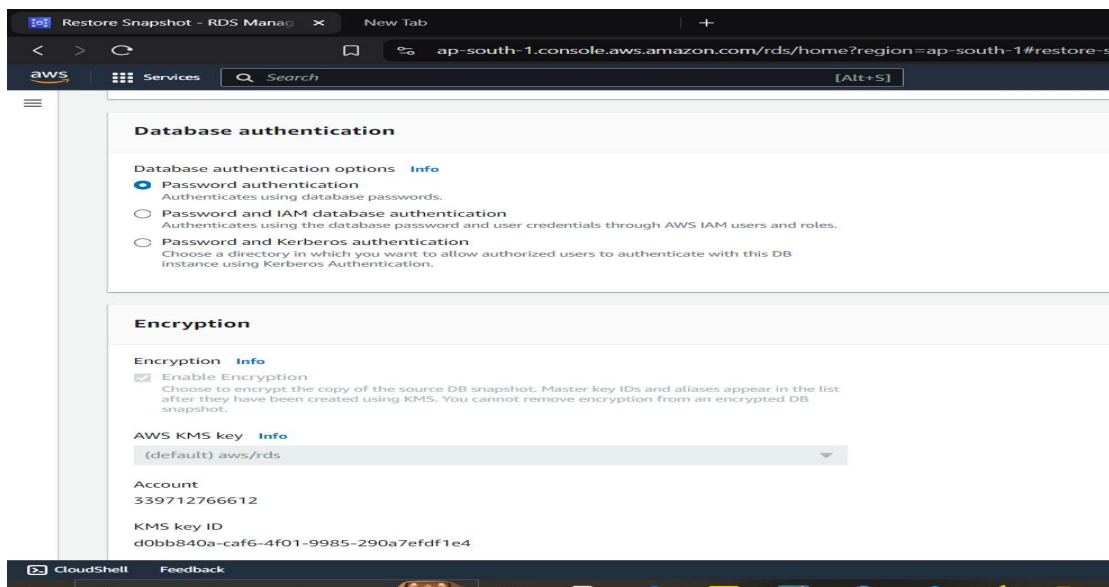
Title of Practicle : Encrypt an Unencrypted RDS DB Instance

AZ: no preferences

Database port: 3306

No changes

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Title of Practicle : Encrypt an Unencrypted RDS DB Instance

RESTORE DB INSTANCE

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Title of Practicle :   Encrypt an Unencrypted RDS DB Instance

STEP3: CHECK BOTH THE DATABASES:

Unencrypted database

Encrypted database

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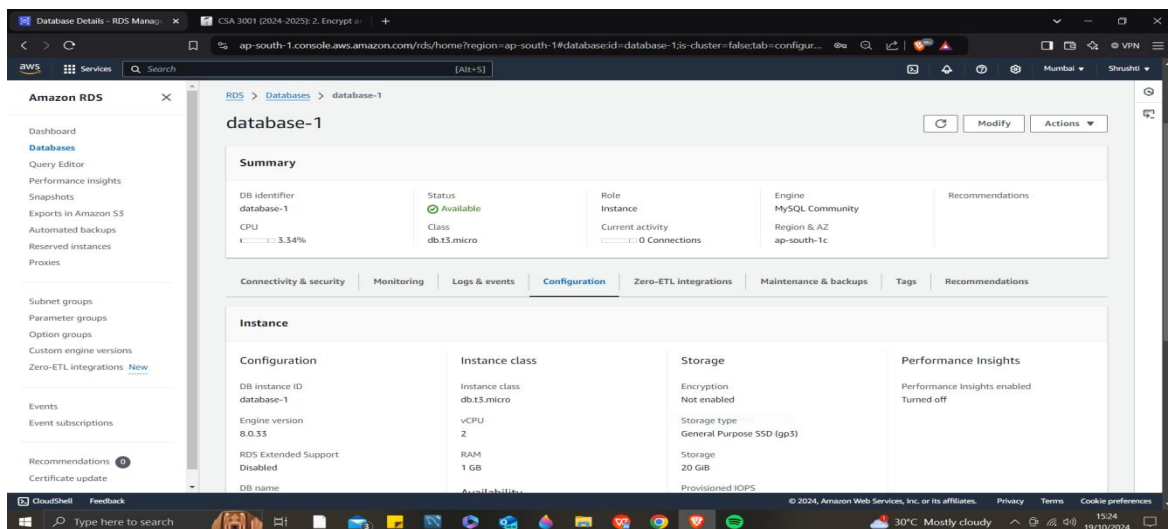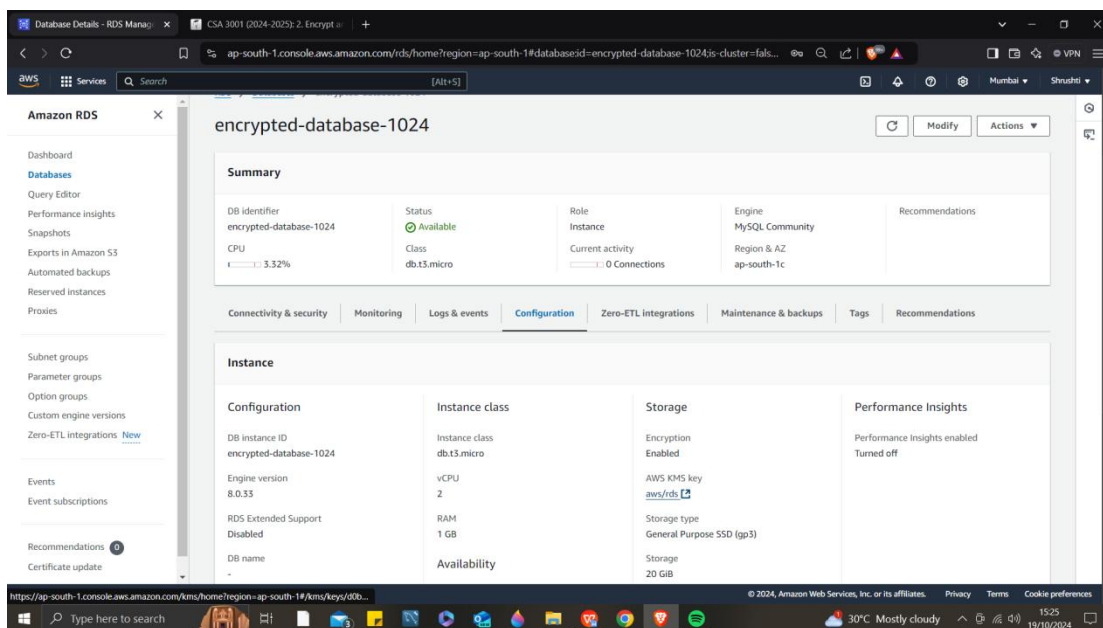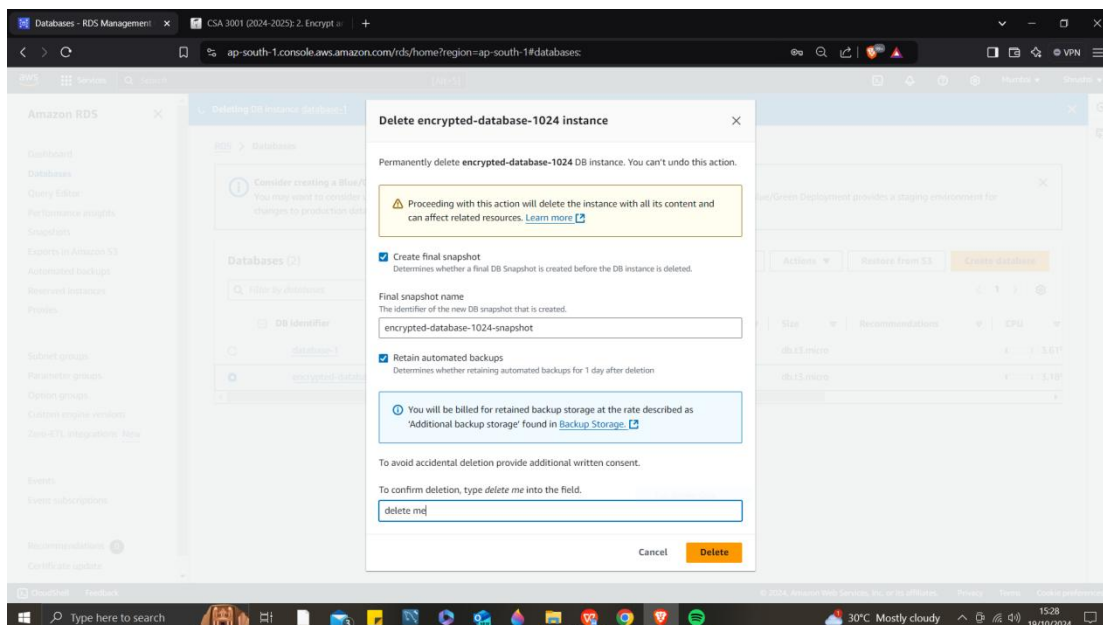**Name of the Student:** **Shrusht Krishna Shrivastav**　　**PRN:** **20220801024**

Title of Practicle : 　Encrypt an Unencrypted RDS DB Instance

STEP4: deletion

Delete both the databases

Ensure to uncheck both the previous box of snapshot and backup or else manually delete them to avoid cost

Done.