1. **Create a MySQL RDS Instance and Make It Private**:
   * First, create an Amazon RDS for MySQL DB instance in your desired Amazon Virtual Private Cloud (VPC). You can follow the official AWS documentation on [creating and connecting to a MySQL DB instance](https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/CHAP_GettingStarted.CreatingConnecting.MySQL.html).
   * As a best practice, configure the RDS instance to be private within your VPC. This means that other resources within the same VPC (such as EC2 instances) can access the DB instance, but resources outside of the VPC cannot.
   * Ensure that you set up appropriate security groups for your RDS instance to control inbound and outbound traffic. You can restrict access based on IP addresses or other security groups.
2. **Create a Public EC2 Instance in the Same VPC**:
   * Launch an Amazon EC2 instance in the same VPC where your RDS instance resides.
   * Make sure the EC2 instance is in a public subnet (i.e., a subnet with an internet gateway in its routing table). This allows the EC2 instance to have a public IP address.
   * Configure the security group for the EC2 instance to allow incoming traffic on port 22 (SSH) from your local machine. You can specify your local machine’s public IP address in the security group rules.
3. **Connect to the Private RDS Instance from Your Local Machine**:
   * To connect from your local machine to the private RDS instance, you can use an Amazon EC2 instance as a bastion host (jump server). Here’s how:
     + Launch and configure an EC2 instance (the bastion host) in the same VPC as your RDS instance.
     + Make sure the EC2 instance has a public IP address and is accessible from your local machine.
     + Configure the security group for the EC2 instance to allow SSH traffic (port 22) from your local machine.
     + Use SSH to connect to the EC2 instance from your local machine.
     + From the EC2 instance, establish an SSH tunnel to the private RDS instance using the following command:
     + ssh -i /path/to/your/key.pem -L 3306:private-rds-instance-endpoint:3306 ec2-user@bastion-public-ip

Replace /path/to/your/key.pem with the actual path to your SSH key, private-rds-instance-endpoint with the RDS instance endpoint, and bastion-public-ip with the public IP address of the EC2 instance.

* + - Once the tunnel is established, you can connect to the RDS instance from your local machine using a MySQL client (e.g., MySQL Workbench) by connecting to localhost:3306.

Remember to replace placeholders (such as key paths, RDS instance endpoints, and EC2 instance IPs) with actual values based on your setup. If you encounter any issues, refer to the AWS documentation or seek further assistance. Good luck! 😊

For more detailed instructions, you can refer to the official AWS documentation on [connecting to a private RDS DB instance](https://repost.aws/knowledge-center/rds-connect-ec2-bastion-host)[.1](https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/CHAP_GettingStarted.CreatingConnecting.MySQL.html)[2](https://repost.aws/knowledge-center/rds-connect-ec2-bastion-host)

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~\\_ ####\_ Amazon Linux 2023

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[ec2-user@ip-10-10-0-102 ~]$ ls -l

total 0

**[ec2-user@ip-10-10-0-102 ~]$ cat > lipi-window-insta.pem**

-----BEGIN RSA PRIVATE KEY-----

MIIEowIBAAKCAQEAqFMqG8bs5cG/foNw30AUCIc7vxS/J2x817WpbOKzaFZVUMv0

SdUQlGV/k9frczwXl8EixGWXmKUG4IsIW64LkeOolvlrc93ulAsPDi/TgkjnUXi6

su6MwKmQRz7D6kFBt2hSEr2aYyVdTwDYT5BpoSBr9eUzxxOE/hRudzzJiWRXJcie

+S8xgQ8Ci54mYwBATVAIU4qV5WQbGHA4Kgb9R4tQr+YVUx43GyV/Jx63pTK2MkVX

rDgO77wFX1ZnmtBX0dlCxElFC/P/YBETjUMnEjX530QWPzAJIXuYl1IHai1VJSZ3

I5uZGwRrSPFFKFKvhStn3aHK/mx+opoiAQPylwIDAQABAoIBACgTHLxeQPp2hVPm

kVHlnJ9nKvdURipprtNggcTVuGcH3uoMlM2bN4ZNH/Gf/4OA9BECP3fIxC3oZFnD

YCsLpd+G9xVyrn14ghunAl+bTV0AZGpGNxTwrHwWIq6Dp/s2rCGxaZDiqUYfmDZ9

+gH/XNaqtGlnt0sXP5uKW75xr33RDKVGZ3dpHo3AjWnvuC9IySH6mp5JV6+/DiyN

IoP0JdpsOTwSVlKI08Fpj2fkvO44scfmeecgGFU1mCByc+AEAXI82/AuQ0L42vCa

dLwjSNxs7eGot5XC8wlysBaybPu+axxMBNfQZYstmsWbRtGqCJ0Q8amYBXLcptk8

C1M0ZxkCgYEA9Qv9L2lm7CFmvgab+gqNxR4QpkSJN47bPuSLDB2sN6F5JnY/80/D

RyIhf0N7gL0/RDEnNADQqDiaoNxeZwblnnAD1p+s3iIcNfcppp9HrJzlZ3nIrJO1

bAbbWD2BuApwsQxXPaEwKf3kS5n/NH60A18RMmO8mMcJ6B+u+S6ZJ3sCgYEAr9lD

xQuyDm2qztsxW6ncFjxLqYNqFD36N9fDprkDFEuE1vy0HyTbJ3UlhbK1j30ZAEsc

Ct5ZFjNh8vUWSNO1rCM8Tvh0xYeDY9vUSg4GbAIj7FBn0ZWmFFPwxMQn9kfXb6ob

z4np7UqWThATJrb2EYsHm5GXo5uU5ZhyS6qiaJUCgYEAlQgPmbAu6ll+FQAMCMw2

YLXiRlzUXzfA28U/U8UQIl1QQzYTurS9/Rsi6DVwfWGbgquqPhRo0oZqdH7R4zLs

n6lcjEFcb1Srd560dCPXAYICeyY0B9FluyeIa2gs5nNjCiqJPHA1zLQfDmPANHsC

nDJLUSwbXYdf3Q636dCPUNUCgYBhAMDZmbIHM4fdxBxeLD00Jt62C8Agmm/FDkjn

V3fTYjVNQuk5pOMfyQeB0StGlAOOneBCPpV2IbIOjBRW6DJ3WpiSF4ySykY4d7OL

hmEUg7m9Sj1658pNvGA8qthAizDUcEoXGkTomRSAy21FFfh3hPIVZyL3JYPlg0rJ

Yr9kYQKBgClR4GkFN0qHMAarirhmfBfPZj/0zZ453kGTD0yw+ahOFYtBATFhxv6M

TopTdQf0BF2DrIpkHrxfEejsma6zwl8fxpTG/vU3Rh4HZuiAeqa67pBPbmO1+BOf

UYgCK69soAsdPjpN7gUMfdpoUDvhTTd/un1csGjSHOto+1bpx6Un

-----END RSA PRIVATE KEY-----^C

**[ec2-user@ip-10-10-0-102 ~]$ ls -l**

total 4

-rw-r--r--. 1 ec2-user ec2-user 1645 Feb 29 16:07 lipi-window-insta.pem

[ec2-user@ip-10-10-0-102 ~]$ ssh -i "aws-testing-unix.pem" ec2-user@3.6.94.75

Warning: Identity file aws-testing-unix.pem not accessible: No such file or directory.

The authenticity of host '3.6.94.75 (3.6.94.75)' can't be established.

ED25519 key fingerprint is SHA256:64RPc0AX6m7vcYrzbR/hK3VJX8V8akBfQgxmfRSU99Y.

This key is not known by any other names

Are you sure you want to continue connecting (yes/no/[fingerprint])? yes

Warning: Permanently added '3.6.94.75' (ED25519) to the list of known hosts.

ec2-user@3.6.94.75: Permission denied (publickey,gssapi-keyex,gssapi-with-mic).

**[ec2-user@ip-10-10-0-102 ~]$ cat > lipi.**txt

lipi puspa ray

^C

**[ec2-user@ip-10-10-0-102 ~]$ chmod 777 lipi.txt**

**[ec2-user@ip-10-10-0-102 ~]$ scp -i lipi-window-insta.pem lipi.txt ec2-user@**10.0.2.42**:/home/ec2-user/**

@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@

@ WARNING: UNPROTECTED PRIVATE KEY FILE! @

@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@

Permissions 0644 for 'lipi-window-insta.pem' are too open.

It is required that your private key files are NOT accessible by others.

This private key will be ignored.

Load key "lipi-window-insta.pem": bad permissions

ec2-user@10.10.1.49: Permission denied (publickey,gssapi-keyex,gssapi-with-mic).

Connection closed

**[ec2-user@ip-10-10-0-102 ~]$ ls -l**

total 8

-rw-r--r--. 1 ec2-user ec2-user 1645 Feb 29 16:07 lipi-window-insta.pem

-rwxrwxrwx. 1 ec2-user ec2-user 15 Feb 29 16:23 lipi.txt

[ec2-user@ip-10-10-0-102 ~]$ cat lipi.txt

lipi puspa ray

**[ec2-user@ip-10-10-0-102 ~]$ cat lipi-window-insta**

cat: lipi-window-insta: No such file or directory

Note: To change from public instance to private instance

Ssh –i <pem file name > ec2-user@<private ip from private ec2 instance>

**[ec2-user@ip-10-10-0-102 ~]$ ssh –i lipi-window-insta.pem ec2-user@ 10.10.1.49**

ssh: Could not resolve hostname \342\200\223i: Name or service not known

**[ec2-user@ip-10-10-0-102 ~]$ sudo chmod 400 lipi-window-insta.pem**

**[ec2-user@ip-10-10-0-102 ~]$ ssh -i lipi-window-insta ec2-user@**10.0.2.42

Warning: Identity file lipi-window-insta not accessible: No such file or directory.

ec2-user@10.10.1.49: Permission denied (publickey,gssapi-keyex,gssapi-with-mic).

[**ec2-user@ip-10-10-0-102 ~]$ ls -l**

total 8

-r--------. 1 ec2-user ec2-user 1645 Feb 29 16:07 lipi-window-insta.pem

-rwxrwxrwx. 1 ec2-user ec2-user 15 Feb 29 16:23 lipi.txt

[**ec2-user@ip-10-10-0-102 ~]$ ssh -i lipi-window-insta.pem ec2-user@10.10.1.49**

Load key "lipi-window-insta.pem": error in libcrypto

ec2-user@10.10.1.49: Permission denied (publickey,gssapi-keyex,gssapi-with-mic).

[**ec2-user@ip-10-10-0-102 ~]$ cat lipi-window-insta.pem**

-----BEGIN RSA PRIVATE KEY-----

MIIEowIBAAKCAQEAqFMqG8bs5cG/foNw30AUCIc7vxS/J2x817WpbOKzaFZVUMv0

SdUQlGV/k9frczwXl8EixGWXmKUG4IsIW64LkeOolvlrc93ulAsPDi/TgkjnUXi6

su6MwKmQRz7D6kFBt2hSEr2aYyVdTwDYT5BpoSBr9eUzxxOE/hRudzzJiWRXJcie

+S8xgQ8Ci54mYwBATVAIU4qV5WQbGHA4Kgb9R4tQr+YVUx43GyV/Jx63pTK2MkVX

rDgO77wFX1ZnmtBX0dlCxElFC/P/YBETjUMnEjX530QWPzAJIXuYl1IHai1VJSZ3

I5uZGwRrSPFFKFKvhStn3aHK/mx+opoiAQPylwIDAQABAoIBACgTHLxeQPp2hVPm

kVHlnJ9nKvdURipprtNggcTVuGcH3uoMlM2bN4ZNH/Gf/4OA9BECP3fIxC3oZFnD

YCsLpd+G9xVyrn14ghunAl+bTV0AZGpGNxTwrHwWIq6Dp/s2rCGxaZDiqUYfmDZ9

+gH/XNaqtGlnt0sXP5uKW75xr33RDKVGZ3dpHo3AjWnvuC9IySH6mp5JV6+/DiyN

IoP0JdpsOTwSVlKI08Fpj2fkvO44scfmeecgGFU1mCByc+AEAXI82/AuQ0L42vCa

dLwjSNxs7eGot5XC8wlysBaybPu+axxMBNfQZYstmsWbRtGqCJ0Q8amYBXLcptk8

C1M0ZxkCgYEA9Qv9L2lm7CFmvgab+gqNxR4QpkSJN47bPuSLDB2sN6F5JnY/80/D

RyIhf0N7gL0/RDEnNADQqDiaoNxeZwblnnAD1p+s3iIcNfcppp9HrJzlZ3nIrJO1

bAbbWD2BuApwsQxXPaEwKf3kS5n/NH60A18RMmO8mMcJ6B+u+S6ZJ3sCgYEAr9lD

xQuyDm2qztsxW6ncFjxLqYNqFD36N9fDprkDFEuE1vy0HyTbJ3UlhbK1j30ZAEsc

Ct5ZFjNh8vUWSNO1rCM8Tvh0xYeDY9vUSg4GbAIj7FBn0ZWmFFPwxMQn9kfXb6ob

z4np7UqWThATJrb2EYsHm5GXo5uU5ZhyS6qiaJUCgYEAlQgPmbAu6ll+FQAMCMw2

YLXiRlzUXzfA28U/U8UQIl1QQzYTurS9/Rsi6DVwfWGbgquqPhRo0oZqdH7R4zLs

n6lcjEFcb1Srd560dCPXAYICeyY0B9FluyeIa2gs5nNjCiqJPHA1zLQfDmPANHsC

nDJLUSwbXYdf3Q636dCPUNUCgYBhAMDZmbIHM4fdxBxeLD00Jt62C8Agmm/FDkjn

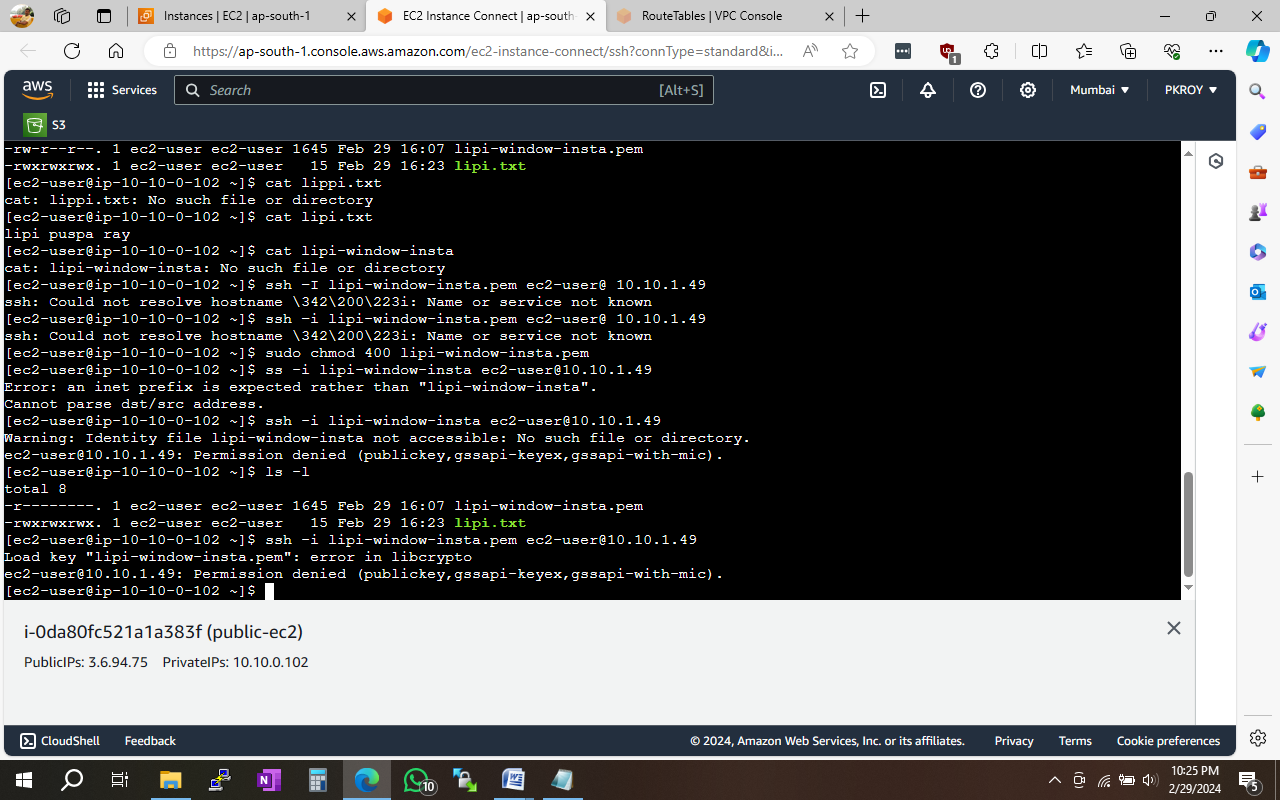
V3fTYjVNQuk5pOMfyQeB0StGlAOOneBCPpV2IbIOjBRW6DJ3WpiSF4ySykY4d7OL

hmEUg7m9Sj1658pNvGA8qthAizDUcEoXGkTomRSAy21FFfh3hPIVZyL3JYPlg0rJ

Yr9kYQKBgClR4GkFN0qHMAarirhmfBfPZj/0zZ453kGTD0yw+ahOFYtBATFhxv6M

TopTdQf0BF2DrIpkHrxfEejsma6zwl8fxpTG/vU3Rh4HZuiAeqa67pBPbmO1+BOf

UYgCK69soAsdPjpN7gUMfdpoUDvhTTd/un1csGjSHOto+1bpx6Un

[ec2-user@ip-10-10-0-102 ~]$ ^C

For security group,

scp -i your.pem filename ec2-user@10.100.0.234:/home/ec2-user/

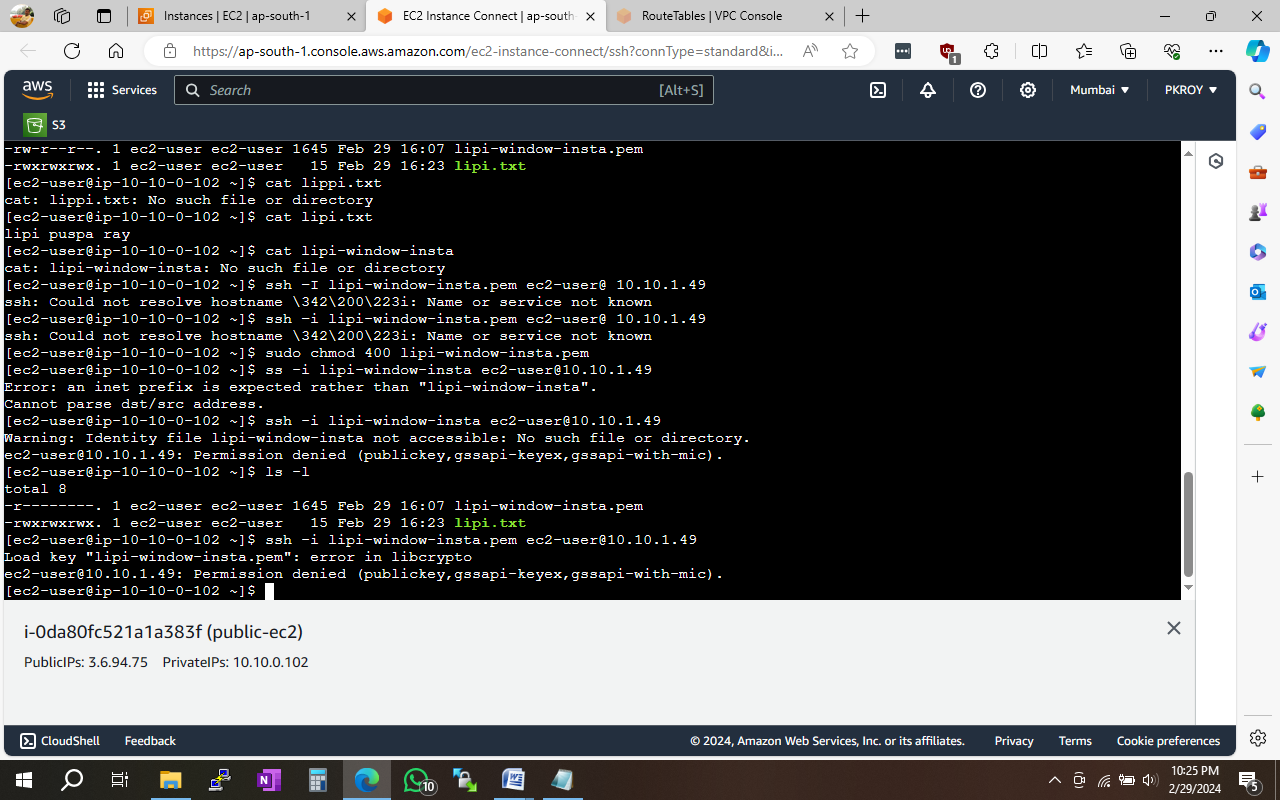
ssh -i peabitra.pem ec2-user@10.0.1.8

ssh –I lipi.pem ec2-user@ 43.204.103.91

scp -i peabitra.pem ec2-user@10.0.1.8:/home/ec2-user/test.txt .

scp –i lipi-window-insta.pem lipi.txt [ec2-user@10.10.1.49:/home/ec2-user/](mailto:ec2-user@10.10.1.49:/home/ec2-user/)

ssh –i lipi-window-insta.pem ec2-user@ 10.10.1.49



Install telnet and instances connected with peering:

telnet

-bash: telnet: command not found

[ec2-user@ip-10-10-0-190 ~]$ sudo yum install telnet -y

Last metadata expiration check: 0:06:05 ago on Sat Mar 9 14:47:13 2024.

Dependencies resolved.

==================================================================================================================================

Package Architecture Version Repository Size

==================================================================================================================================

Installing:

telnet x86\_64 1:0.17-83.amzn2023.0.2 amazonlinux 64 k

Transaction Summary

==================================================================================================================================

Install 1 Package

Total download size: 64 k

Installed size: 121 k

Downloading Packages:

telnet-0.17-83.amzn2023.0.2.x86\_64.rpm 887 kB/s | 64 kB 00:00

----------------------------------------------------------------------------------------------------------------------------------

Total 498 kB/s | 64 kB 00:00

Running transaction check

Transaction check succeeded.

Running transaction test

Transaction test succeeded.

Running transaction

Preparing : 1/1

Installing : telnet-1:0.17-83.amzn2023.0.2.x86\_64 1/1

Running scriptlet: telnet-1:0.17-83.amzn2023.0.2.x86\_64 1/1

Verifying : telnet-1:0.17-83.amzn2023.0.2.x86\_64 1/1

Installed:

telnet-1:0.17-83.amzn2023.0.2.x86\_64

Complete!

[ec2-user@ip-10-10-0-190 ~]$ telnet

telnet> ^C

[ec2-user@ip-10-10-0-190 ~]$ telnet 10.20.0.21 22

Trying 10.20.0.21...

Connected to 10.20.0.21.

Escape character is '^]'.

SSH-2.0-OpenSSH\_8.7

^C^CConnection closed by foreign host.

[ec2-user@ip-10-10-0-190 ~]$