Launching a windows instance and connecting using RDC and automating simple web server using user data

Remote Desktop Connection (RDC)

It is a technology that allows a user to **connect and access** a remote computer or server over a network, typically the internet.

It enables users to interact with a remote system as if they were sitting in front of it, providing a way **to control and use** remote resources.

It allows users to share the desktop of a remote computer, providing a collaborative environment where multiple users can **view and interact** with the same system simultaneously.

This is helpful for presentations, demonstrations, or troubleshooting sessions.

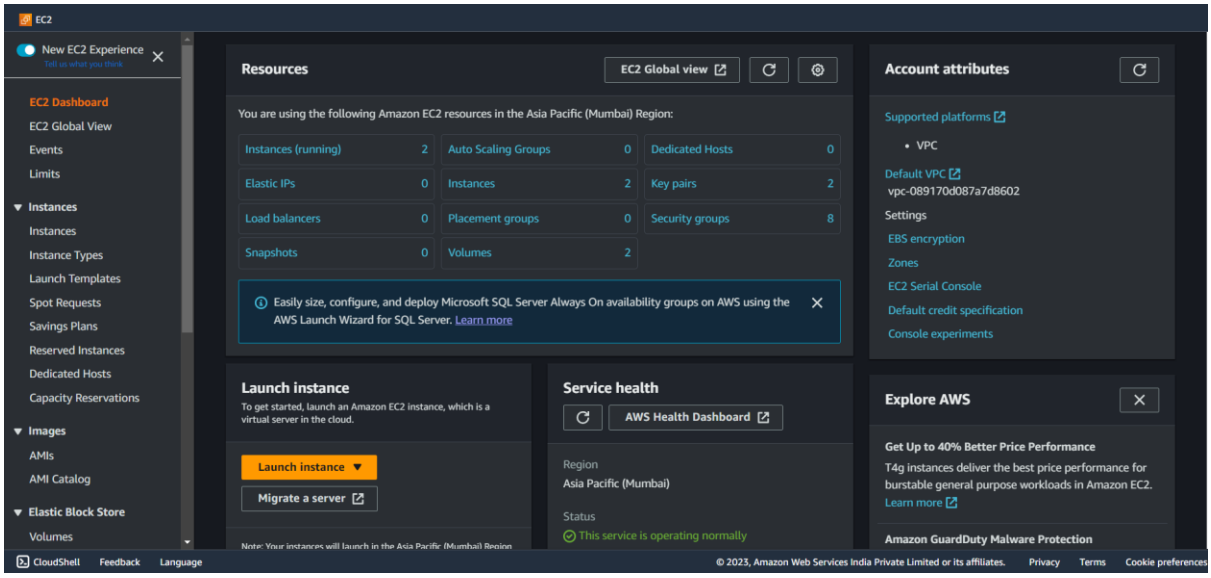
It provides secure access to remote systems by **encrypting the data** transmitted over the network. It also supports various authentication methods, such as username/password, multi-factor authentication, and smart card authentication, ensuring only authorized users can access the remote resources.

It is **available on various operating systems**, including Windows, mac OS, and Linux. This allows users to connect to remote systems regardless of their local operating system.

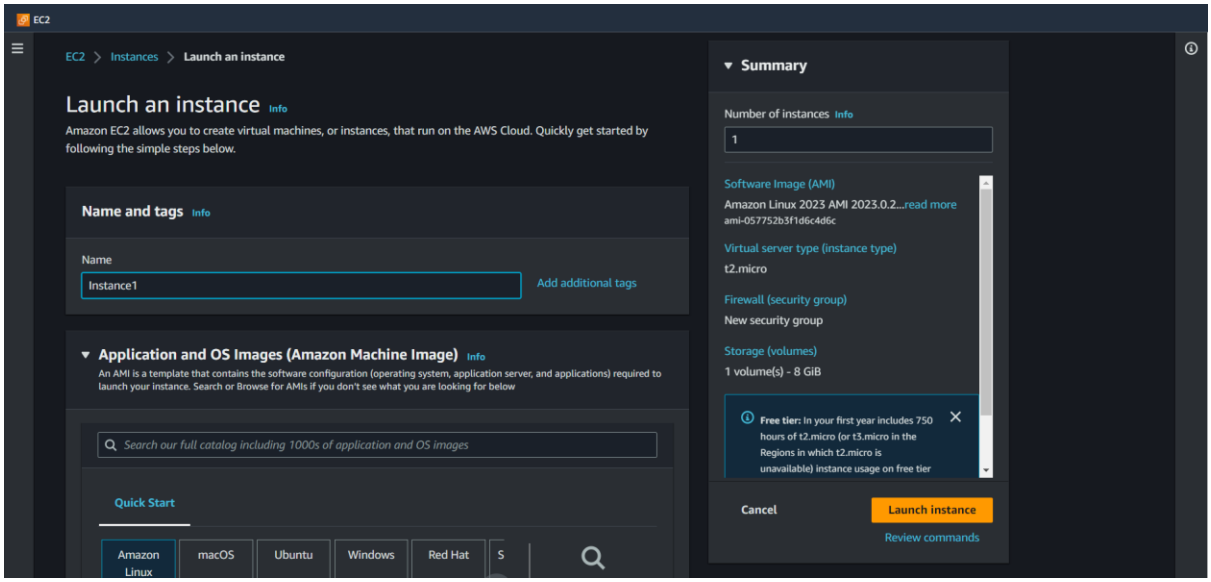
In EC2, to connect to a windows instance we use RDP to connect to it

Steps to launch a windows instance

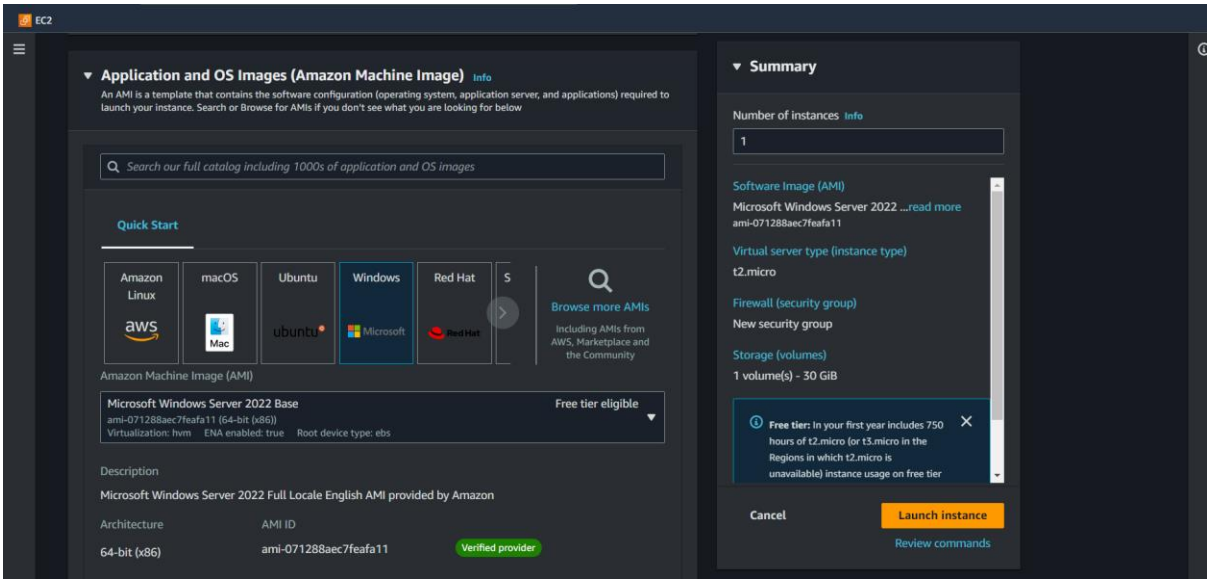
1. First Log in to your AWS free tier account and open your AWS management console and click on services and select compute and **Select EC2.**



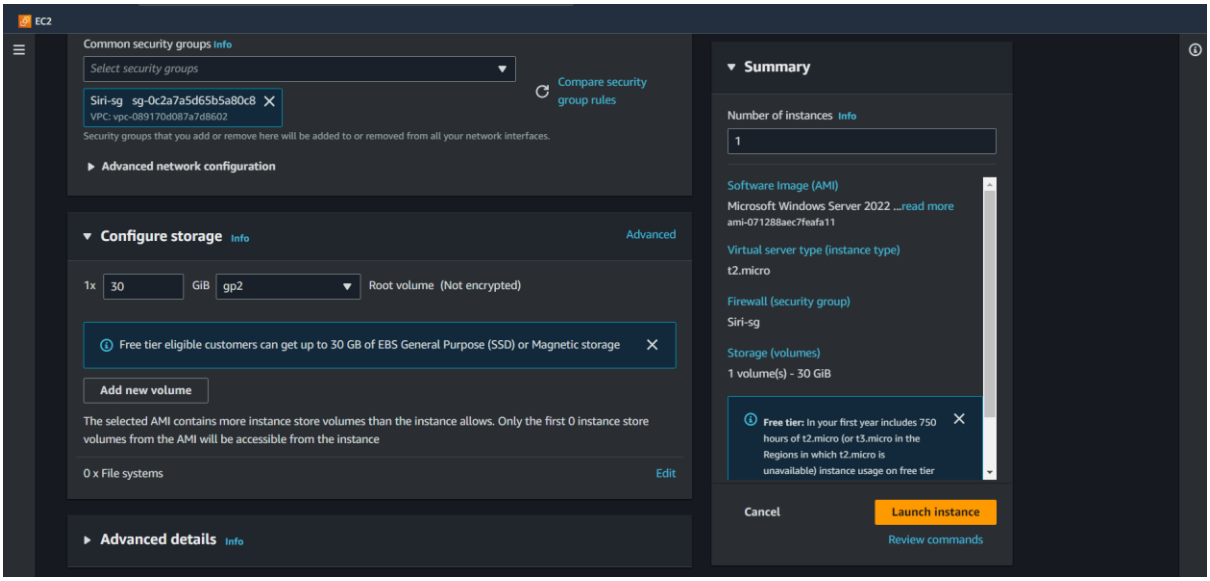
2. Click on **Launch an Instance** and open the EC2 launch pad Firstly **Name** your Instance and set respective **tags** if required.



3. Select required **AMI** for your Virtual Machine here I chose **Windows** you can also browse different AMIs in the browse more AMIs section make sure it is FREE TIER ELIGIBLE if you're using a free tier account

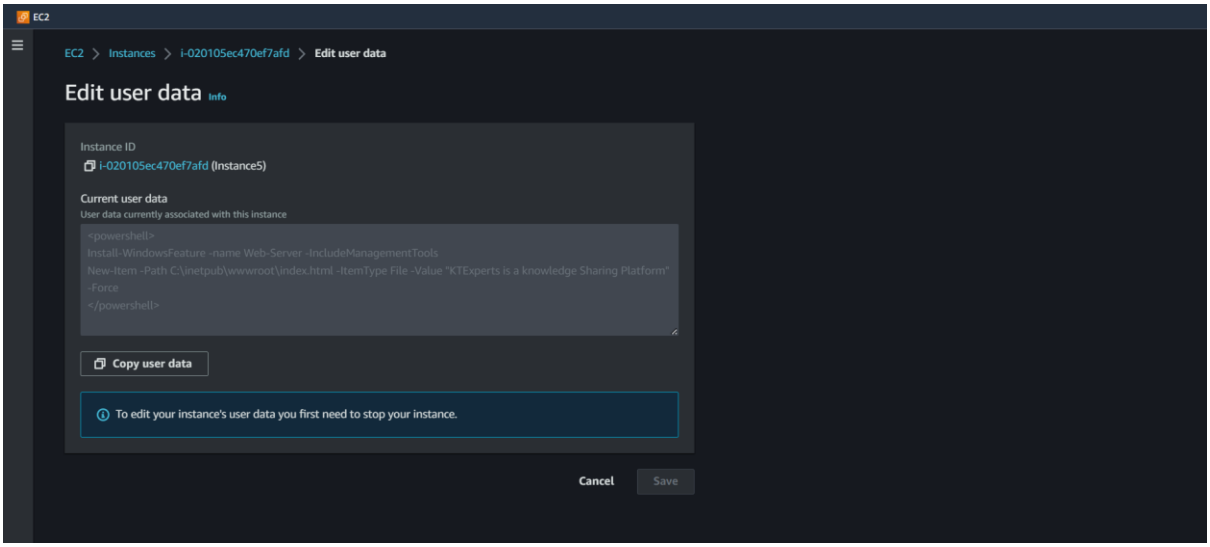


4. Select Required instance type, key pair, security group and storage (default 30gb for windows) and then click on launch instance to launch a windows instance

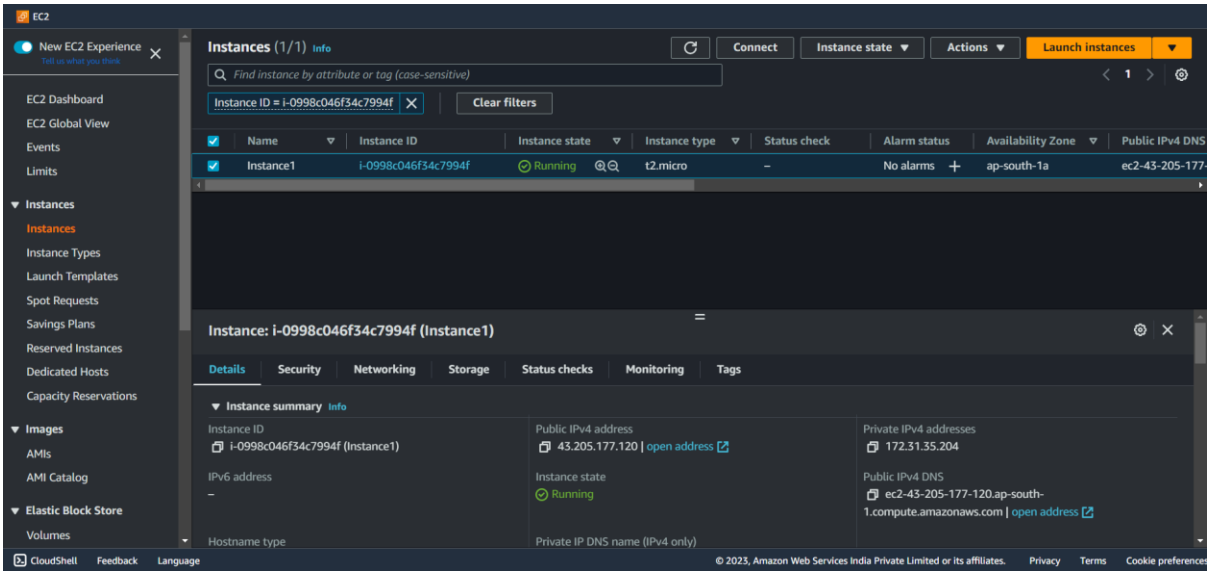


5. In advanced settings add a simple PowerShell script, enable **meta accessible**, set **metadata version** as v1 and v2, metadata **response hop count** as 1 and enable metatags also you can edit user data after launching instance by stopping the instance

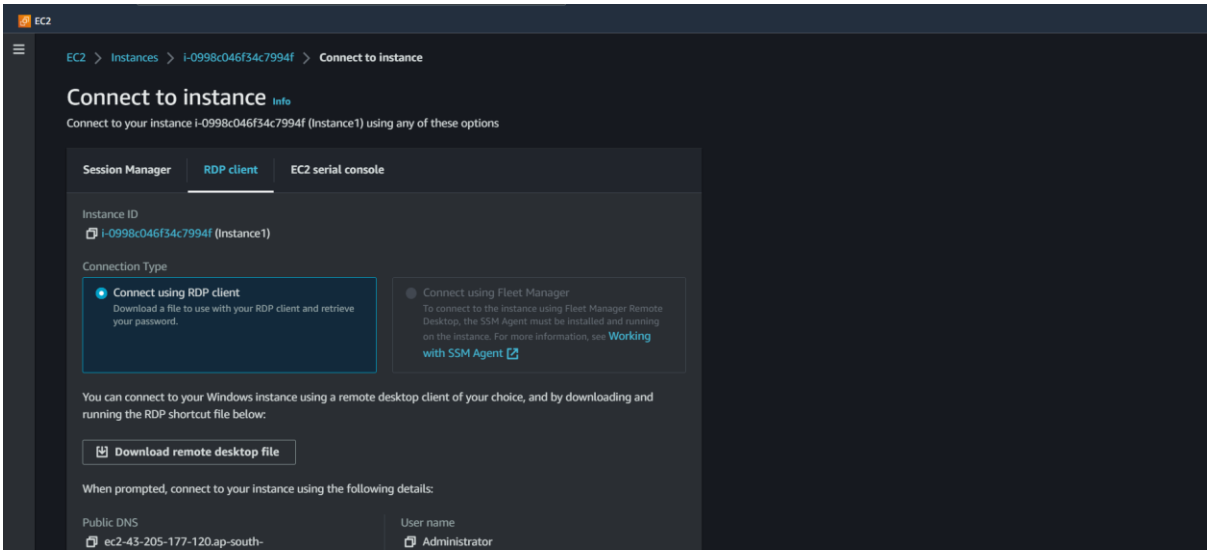
```
<powershell>
Install-WindowsFeature -name Web-Server -IncludeManagementTools
New-Item -Path C:\inetpub\wwwroot\index.html -ItemType File -Value "KTExperts is a knowledge Sharing Platform" -Force
</powershell>
```



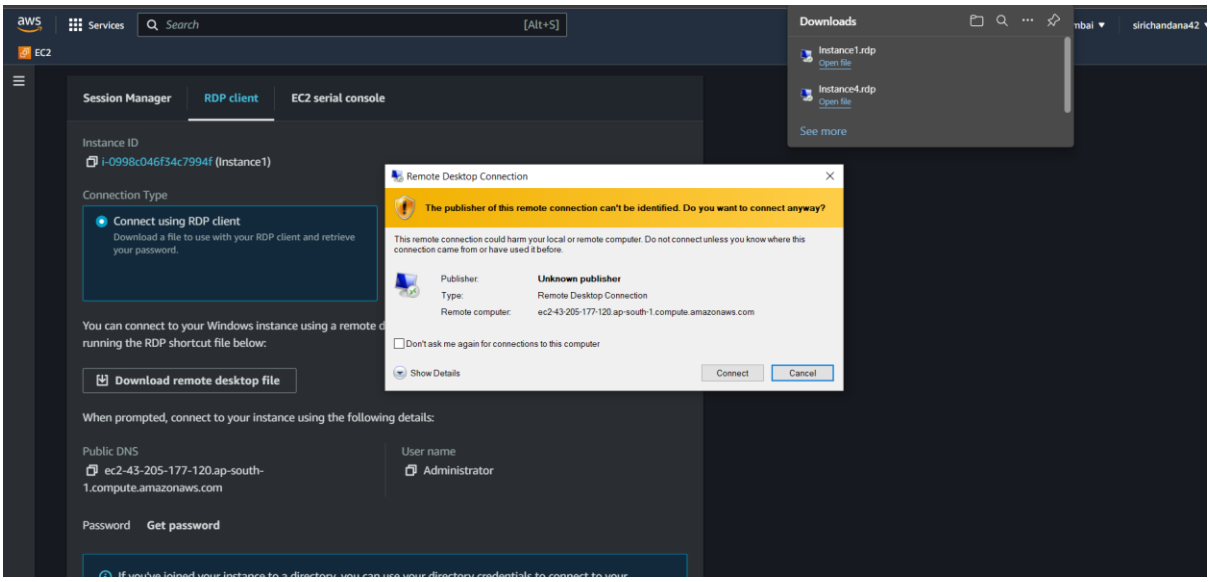
6. An instance will be launched to connect to it lick on **connect** instance by selecting the instance



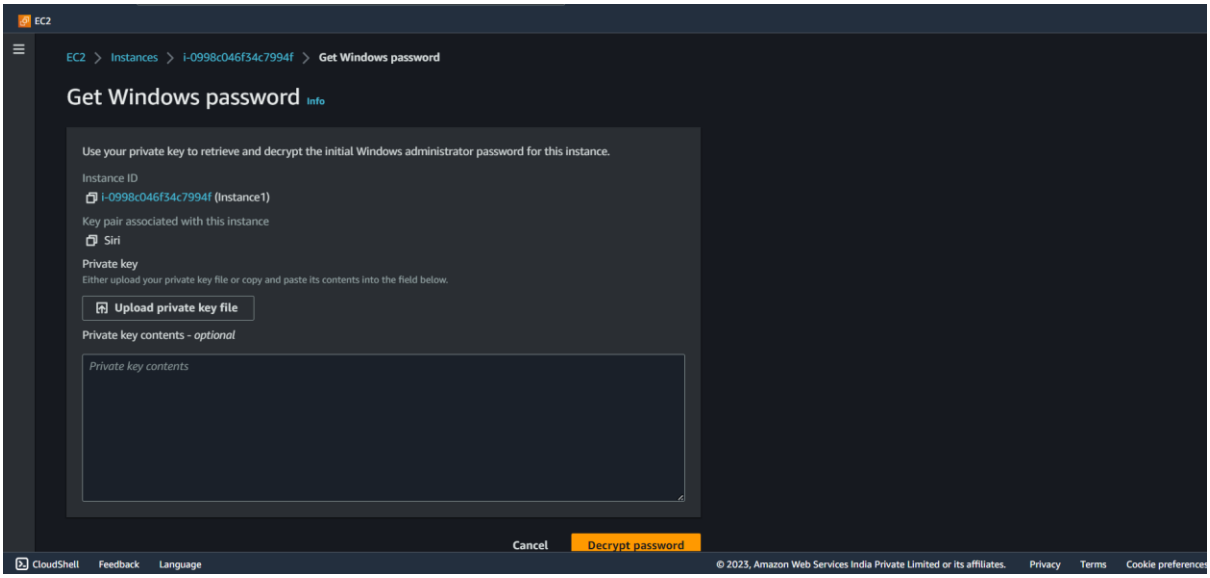
7. Select the RDP client and click on connect using RDP client and download the remote desktop file into your local machine.



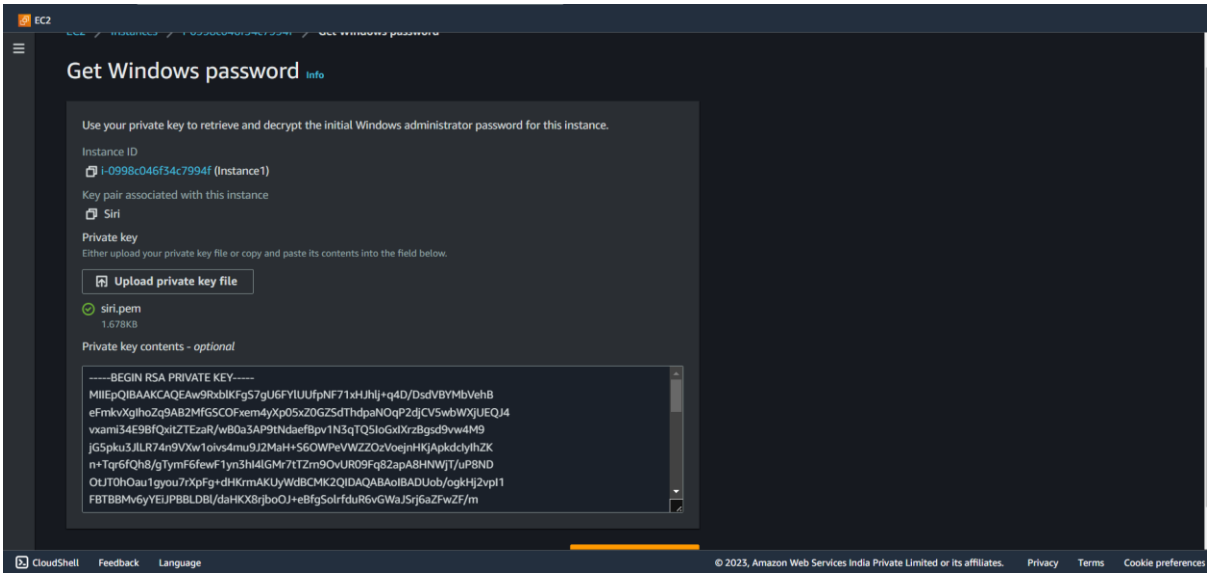
8. Open the download file and click on connect you will be prompted to enter a password.



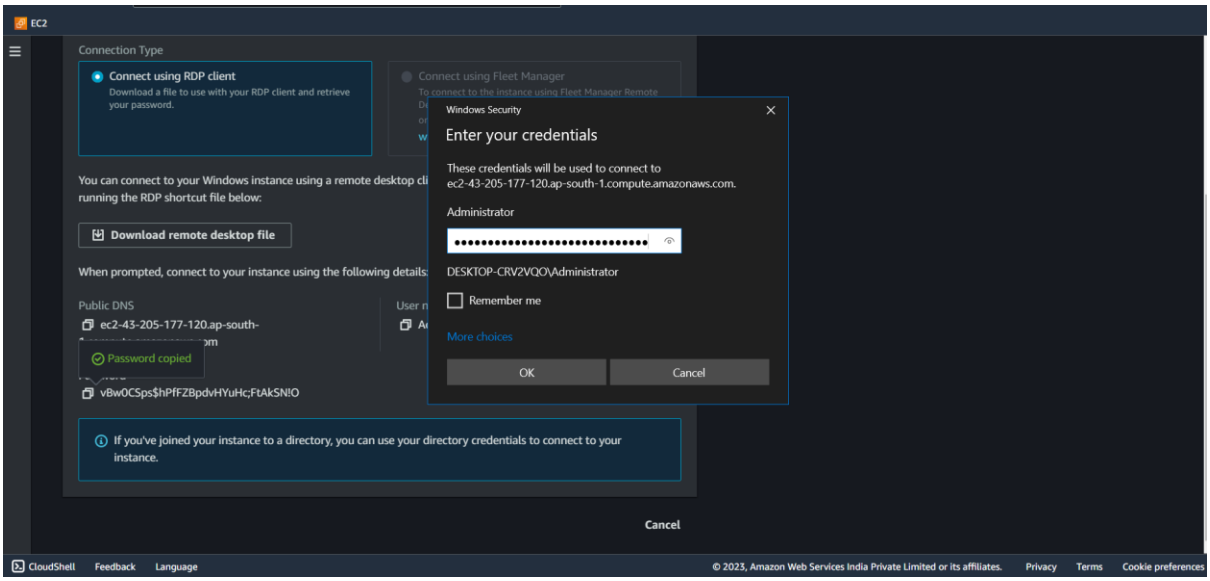
9. To get the password go to get windows password and upload your private key in the in the field provided



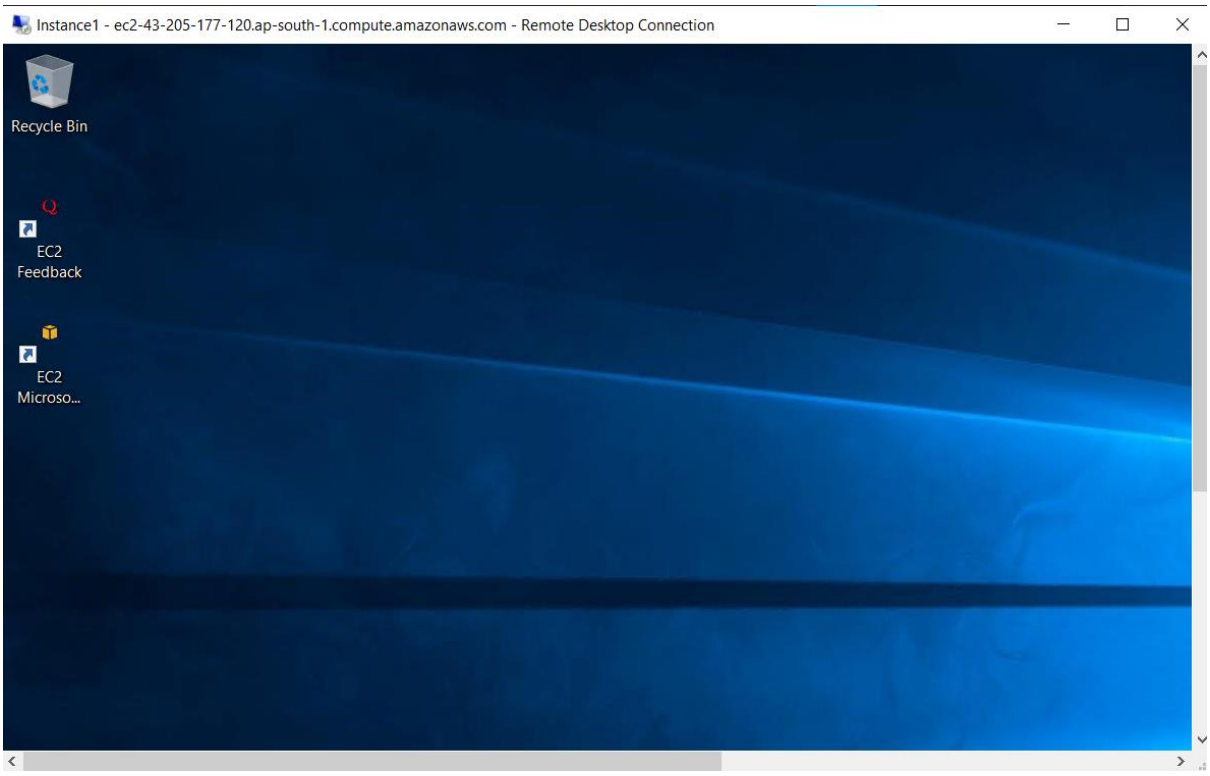
10. Then the contents of your .pem file will be automatically written into space provided and click on decrypt password.



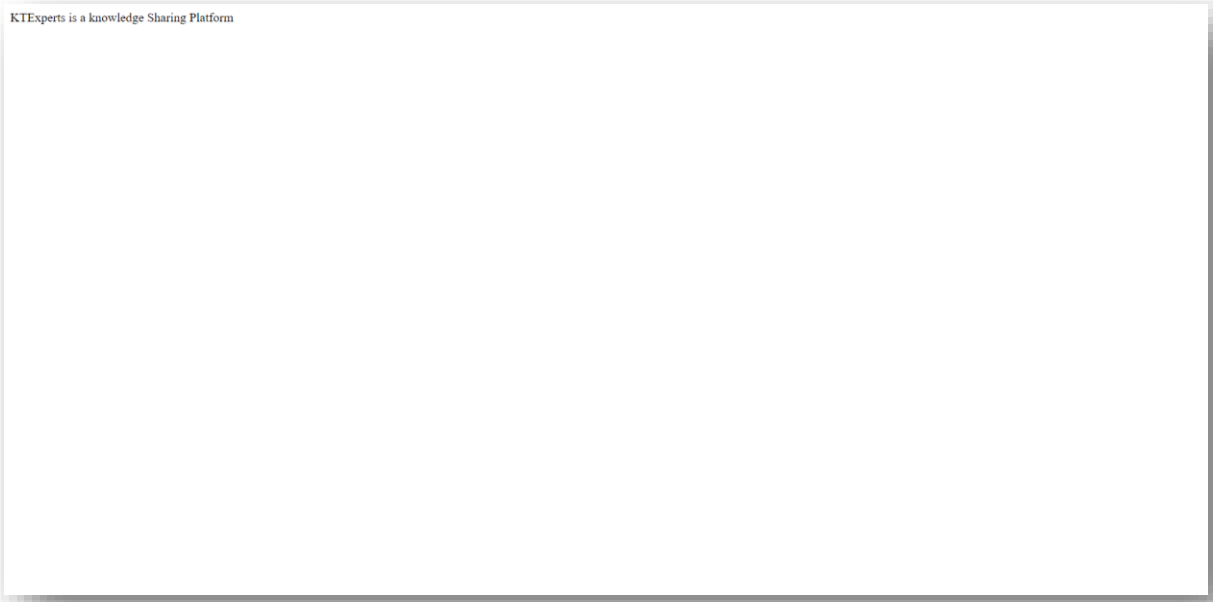
11. Now copy the password and paste it in the RDP client and then click on yes to access the EC2 instance virtual machine



12. Now you get Windows GUI of your virtual machine so that you can access and make changes in it



13. Now go to web browser either in local machine or virtual machine and paste the IP address of the ec2 instance to display simple static web browser.



Cleaning up workspace

1. Select the instance and click on Terminate the instance and close the RDP client.