

Practical No: 1

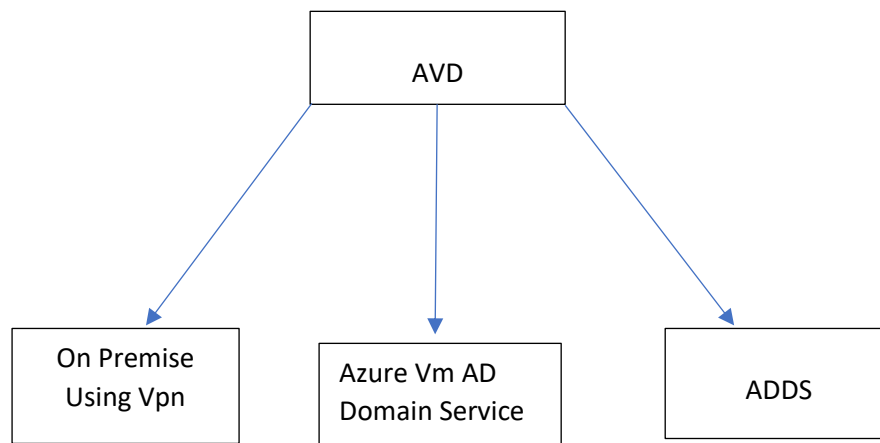
Complete Guide to Setting up Azure Virtual Desktops Using ADDS- Azure Entra id

Agenda:

Section 3: Implement Azure Virtual Desktop Host pool

1. Method we can used to Setup AVD
2. Steps to setup Azure Virtual Desktop
3. Step by Step Implementation
4. Reference: - <https://www.youtube.com/watch?v=Y5AB7AShdi0>

1) Method we can used to Setup AVD:



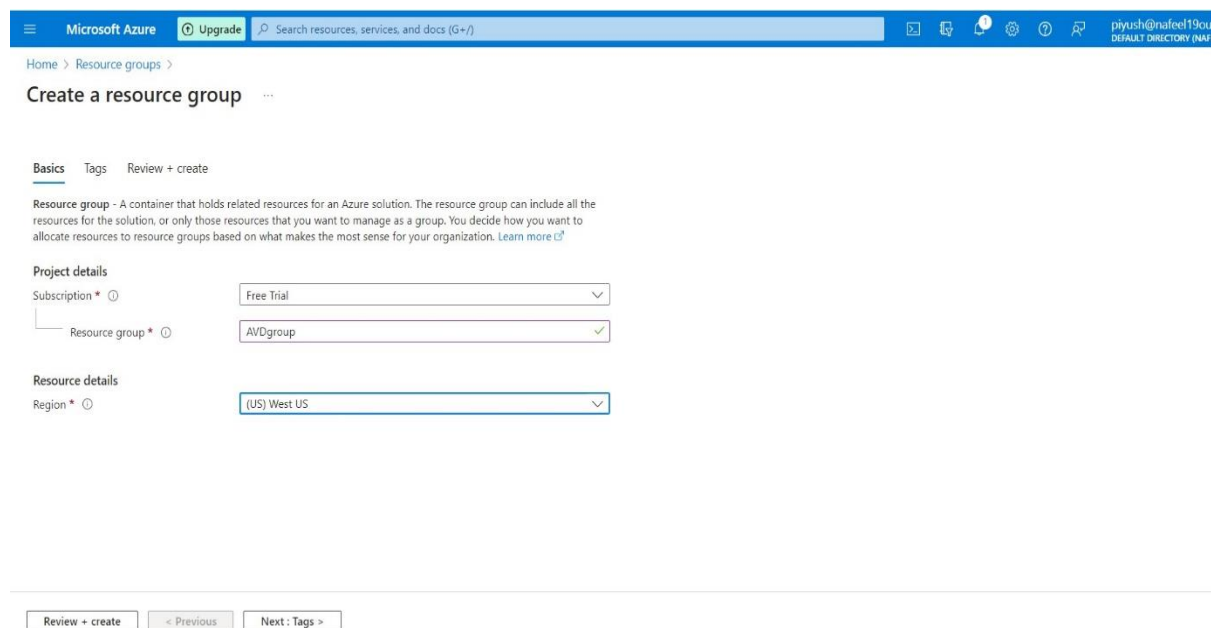
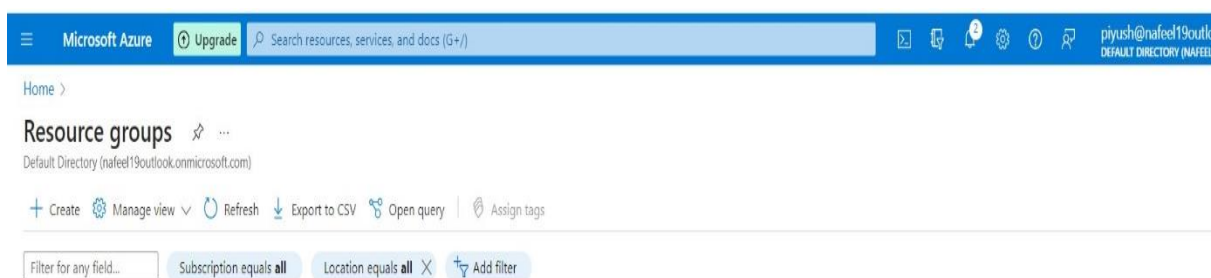
2) Steps to setup Azure Virtual Desktop:

1. Create resource group
2. Create Virtual Network (internal)
3. Create a host pool
4. Create Azure virtual desktop (create a session host)
5. Assign an AD user
6. Add Role Assignment and Add members.
7. Add virtual desktop workspaces
8. Configure Virtual Desktop host pool
9. Log in to the Azure Virtual Desktop (Session Desktop).

3) Step by Step Implementation to Setup Azure Virtual Desktop:

1. Creating a New Azure Resource Group:

- In the Azure portal, select 'Resource groups' from the left-hand menu, then select '+ Add resource group'.
- In the 'Create resource group' blade, enter a name for your resource group and select the 'Subscription', 'Resource group location', and 'Pricing tier' fields. Then, select 'Create'.



Section 3: Implement Azure Virtual Desktop Host pool

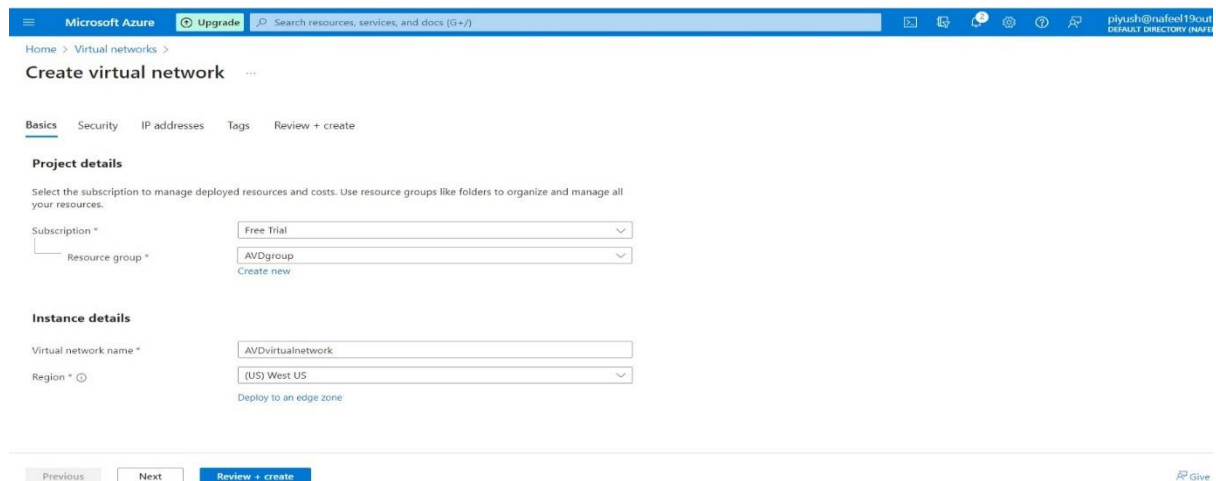
2. Create a virtual network:

We need to create a virtual network for the machines we are going to use later on. To do this, perform the following steps:

- Open Azure Portal as an Administrator.
- Search for Virtual Networks.
- Click on Create.



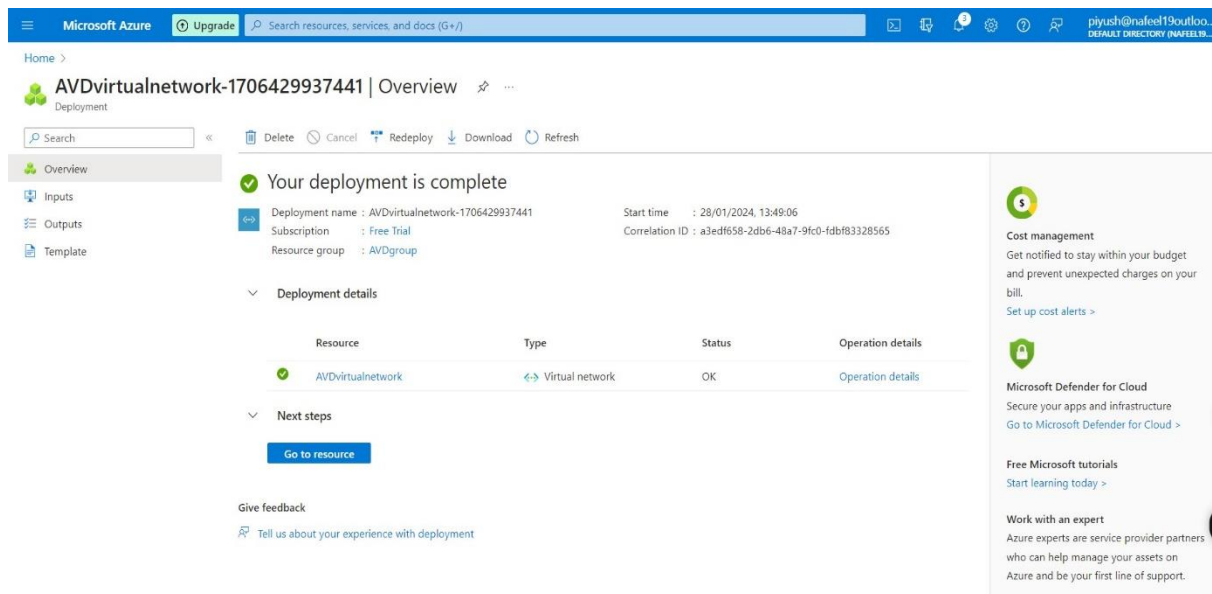
- Select your subscription type and add the existing created AVDgroup resource group that will have access to the network.
- Give a name to the virtual network and select the region.



- In the IP Addresses tab, leave everything as default.

Section 3: Implement Azure Virtual Desktop Host pool

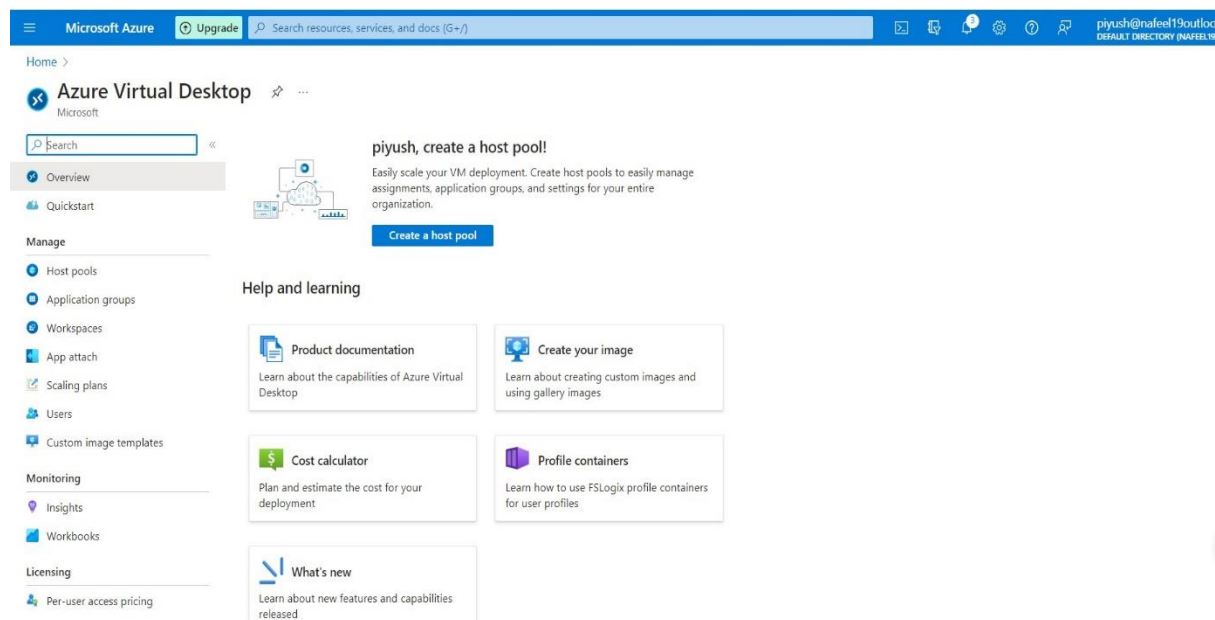
- Click to create virtual network



3. Create a host pool:

After the virtual network is configured, we need to create a host pool for the virtual machines. To do this, perform the following steps:

- In Azure Portal, search for Azure Virtual Desktop.
- Click on Create a host pool.



- Select your subscription and choose the existing created resource group - AVDgroup you previously added for the virtual network.
- Add a host pool name and location West US, keep same location for all the process in AVD.
- Under the host pool type, select pooled.

Section 3: Implement Azure Virtual Desktop Host pool

- Under the Load balancing, select Breadth-first
- Max session limit as per requirement.
- Click Next.

Microsoft Azure Upgrade Search resources, services, and docs (G+/I)

Home > Azure Virtual Desktop >

Create a host pool ...

Resource group * AVDgroup [Create new](#)

Host pool name * jumpin ✓

Location * West US
Metadata will be stored in Azure geography associated with (US) West US. [Learn more](#)

Validation environment ☒ No ☐ Yes

Preferred app group type * Desktop

Host pool type
If you select pooled (shared), users will still be able to access their personalization and user data, using FSLogix.

Host pool type * Pooled

Load balancing algorithm Breadth-first

Max session limit 1 ✓

[Review + create](#) [< Previous](#) [Next: Virtual Machines >](#)

4. Create Azure virtual desktop (create a session host):

- In the Virtual Machines tab, select Yes to add a virtual machine.
- Add existing created Resource group AVDgroup.
- Add a prefix name and location West US, keep same location for all the process in AVD.

Microsoft Azure Upgrade Search resources, services, and docs (G+/I)

Home > Azure Virtual Desktop >

Create a host pool ...

Basics **Virtual Machines** Workspace Advanced Tags Review + create

A host pool is a collection of one or more identical virtual machines within an Azure Virtual Desktop environment. Here you can give details to create Azure virtual machines for your host pool now, or you can create and add them later, for example if you plan to add virtual machines from Azure Stack HCI. [Learn more](#)

Add virtual machines ☐ No ☒ Yes

Host pools are a collection of one or more identical virtual machines within Azure Virtual Desktop environments. Here you provide a common set of properties to update the Session hosts within your host pool.

Resource group AVDgroup

Name prefix * jumpin ✓
Session host name must be unique within the Resource Group.

Virtual machine type ☒ Azure virtual machine ☐ Azure Stack HCI virtual machine (Preview)

Virtual machine location West US

Availability options No infrastructure redundancy required

[Review + create](#) [< Previous](#) [Next: Workspace >](#)

- Under Image as per requirement, windows 10 or 11.

Section 3: Implement Azure Virtual Desktop Host pool

- You can add as many machines as you want in this step. We only added one and left everything else to standard.

Home > Azure Virtual Desktop >

Create a host pool ...

Security type *	<input type="radio"/> Standard security virtual machines	<input type="radio"/> Trusted launch virtual machines
Enable secure boot	<input checked="" type="checkbox"/>	
Enable vTPM	<input checked="" type="checkbox"/>	
Integrity monitoring	<input type="checkbox"/>	
Image *	Windows 10 Enterprise multi-session, Version 21H2 + Microsoft 365 ... See all images	
Virtual machine size *	Standard D2s v3 2 vCPU's, 8 GiB memory Change size	
Number of VMs *	1	
OS disk type *	Standard SSD	
OS disk size *	Resize to 256 GiB (P15)	
Boot diagnostics	<input checked="" type="radio"/> Enable with managed storage account (recommended) <input type="radio"/> Enable with custom storage account <input type="radio"/> Disable	

[Review + create](#) [< Previous](#) [Next: Workspace >](#)

- Under the Network and security, make sure to select the previously created Virtual Network. No other network configurations are necessary.

Create a host pool ...

Network and security

Use Azure Firewall to secure your VNET and host pool resources. [Learn more](#)

Virtual network *	AVDvirtualnetwork
Subnet	default (10.0.0.0/24)
Network security group type	Basic
Public inbound ports	<input type="radio"/> Yes <input checked="" type="radio"/> No
Inbound ports to allow	Select one or more ports <small>i All traffic from the internet will be blocked by default.</small>

Domain to join

Select which directory you would like to join	Microsoft Entra ID
Enroll VM with Intune	<input type="radio"/> Yes <input checked="" type="radio"/> No

[Review + create](#) [< Previous](#) [Next: Workspace >](#)

- Under Domain to join.
- In our case, we don't have a separate AD site, so we chose to join with the Azure Active Directory. We also went with the option to not enrol the VM with Intune.
- As a last step in this tab, create an administrator account so you can access the VM.

Section 3: Implement Azure Virtual Desktop Host pool

- Click Next.

Create a host pool ...

Select which directory you would like to join

Microsoft Entra ID

Enroll VM with Intune

Yes

No

Virtual machine administrator account

User name

Piyush_01

Password

Confirm password

Custom configuration

Provide location of an ARM template (inline deployment script, desired state configuration, custom script extension) for custom configuration on your session hosts. Provisioning azure resources in the template is not supported.

[Learn more](#)

Custom configuration script url

Review + create

< Previous

Next: Workspace >

- Click to Create AVD Host pool.

Home > Azure Virtual Desktop >

Create a host pool ...

Validation passed.

Basics

Virtual Machines

Workspace

Advanced

Tags

Review + create

Basics

Subscription

Free Trial

Resource group

AVDgroup

Host pool name

jumpin

Location

West US

Preferred app group type

Desktop

Host pool type

Pooled

Max session limit

2

Load balancing algorithm

Breadth-first

Assign multiple desktops to a single user

No

Networking

Public network access

Enabled

Virtual Machines

Create

< Previous

Download a template for automation

Section 3: Implement Azure Virtual Desktop Host pool

- Host pool is ready.

The screenshot shows the Microsoft Azure portal interface for a host pool named 'jumpin'. The left sidebar contains navigation options: Overview, Activity log, Access control (IAM), Tags, Diagnose and solve problems, Settings (Scaling plan, RDP Properties, Properties, Networking, Scheduled agent updates, Locks), and Manage (Application groups, MSIX packages, Session hosts). The main content area displays the 'Essentials' section with the following details:

- Resource group (move): AVDgroup
- Location: West US
- Subscription (move): Free Trial
- Subscription ID: 07a8a12b-1a6b-4e95-a12b-95424b3d585c
- Tags (edit): Add tags
- Host pool type: Pooled
- Assignment type: ---
- Management type: ---
- OS disk type: Standard SSD

Below the Essentials section is the 'Virtual machines' section, which includes a summary of machine status:

Total machines	Can connect	Can't connect
1	1	0

Below this is a summary of session status:

Active sessions	Disconnected sessions	Pending sessions	Total sessions
0	0	0	0

The 'Applications' section is visible at the bottom of the main content area.

5. Assign an AD user:

- In Manage → Application groups

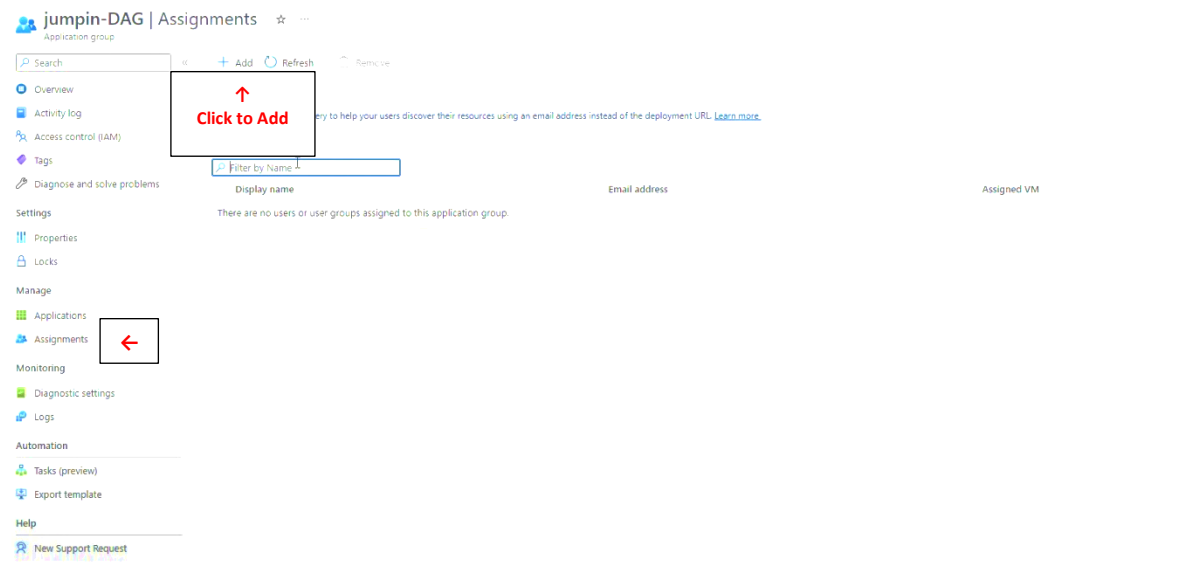
The screenshot shows the Microsoft Azure portal interface for the 'jumpin' Host pool, specifically the 'Application groups' section. The left sidebar is the same as in the previous screenshot, but the 'Application groups' option under 'Manage' is highlighted with a red arrow. The main content area displays a table of application groups:

Name ↑↓	Friendly name ↑↓	Application group type ↑↓	Applications	Assignments
jumpin-DAG	Default Desktop	Desktop	1	0

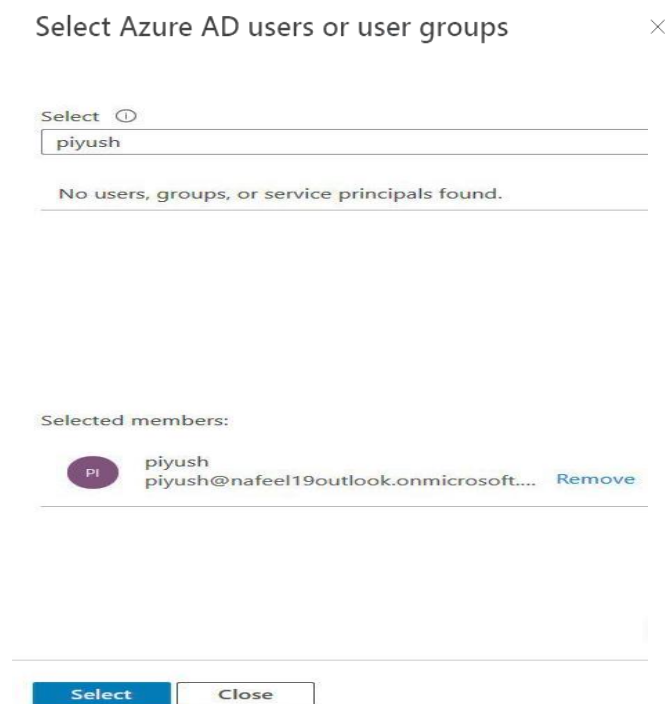
A red arrow points to the 'jumpin-DAG' entry in the table, and a text box with the instruction 'Click on jumpin-DAG' is overlaid on the image. The bottom of the page shows pagination controls: 'Previous', 'Page 1 of 1', and 'Next'.

Section 3: Implement Azure Virtual Desktop Host pool

- In Application groups → Click on jumpin-DAG → In Manage → Assignments
- Click to Add member to Access AVD.



- Select Users as per requirements

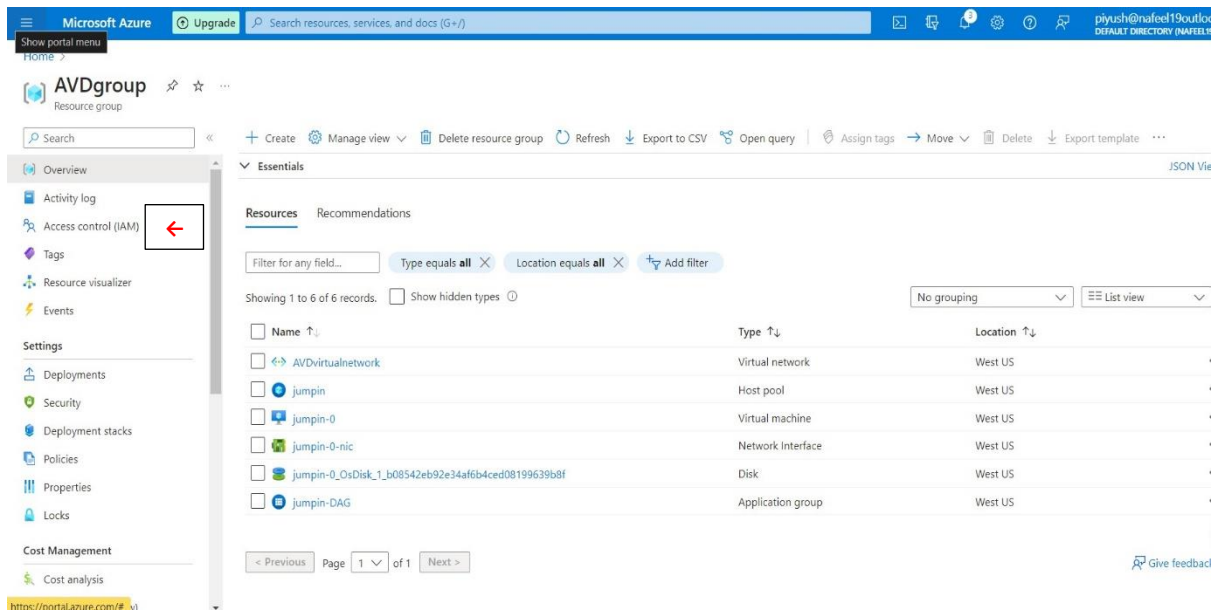


6. Add Role Assignment and Add members:

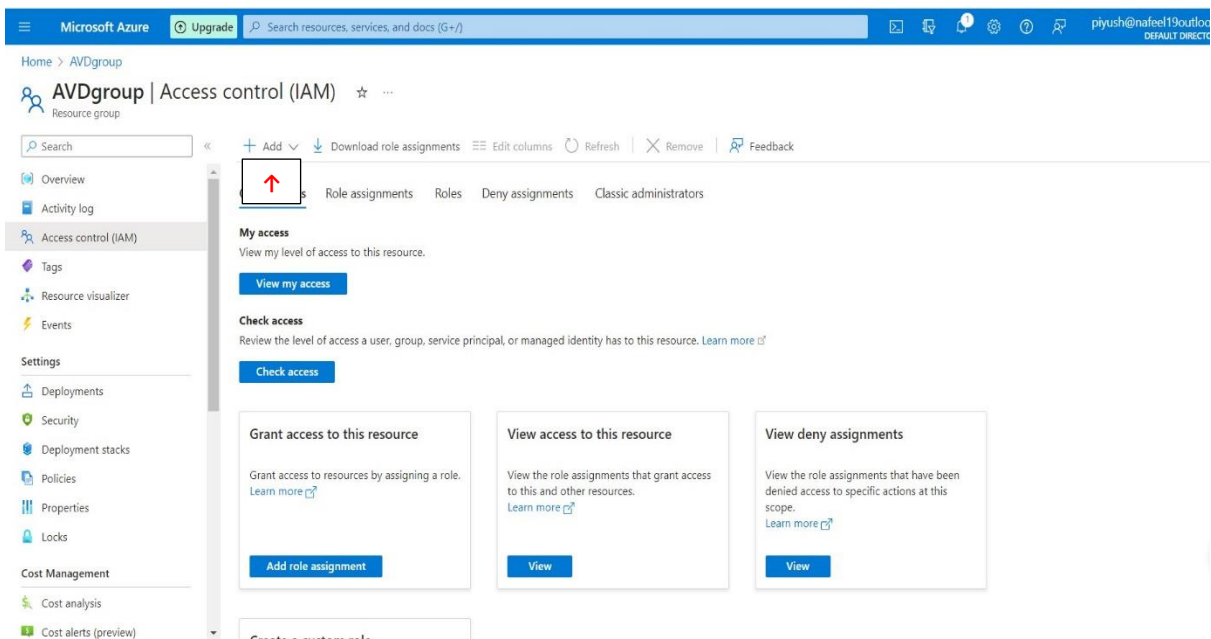
- To Access AVD, required some Additional Access Role.
- In the Azure portal, select 'Resource groups' which we Created AVDgroup.

Section 3: Implement Azure Virtual Desktop Host pool

- Click on Access Control (IAM)



- Click to Add.



- Click on Search → Virtual Machine User login → Select and Assign

Section 3: Implement Azure Virtual Desktop Host pool

- Click to Next

[Home](#) > [AVDgroup](#) | [Access control \(IAM\)](#) >

Add role assignment ...

virtual machine

Type: All

Category: All

Name ↑↓	Description ↑↓	Type ↑↓	Category ↑↓	Details
Classic Virtual Machine Contributor	Lets you manage classic virtual machines, but not access to them, and not the virtual network or storage account they're c...	BuiltInRole	Compute	View
Desktop Virtualization Power On Contributor	Provide permission to the Azure Virtual Desktop Resource Provider to start virtual machines.	BuiltInRole	None	View
Desktop Virtualization Power On Off Contributor	Provide permission to the Azure Virtual Desktop Resource Provider to start and stop virtual machines.	BuiltInRole	None	View
Desktop Virtualization Virtual Machine Contribu...	This role is in preview and subject to change. Provide permission to the Azure Virtual Desktop Resource Provider to create...	BuiltInRole	None	View
DevTest Labs User	Lets you connect, start, restart, and shutdown your virtual machines in your Azure DevTest Labs.	BuiltInRole	Devops	View
Virtual Machine Administrator Login	View Virtual Machines in the portal and login as administrator	BuiltInRole	Compute	View
Virtual Machine Contributor	Lets you manage virtual machines, but not access to them, and not the virtual network or storage account they're connect...	BuiltInRole	Compute	View
Virtual Machine Data Access Administrator (pre...	Manage access to Virtual Machines by adding or removing role assignments for the Virtual Machine Administrator Login a...	BuiltInRole	None	View
Virtual Machine Local User Login	View Virtual Machines in the portal and login as a local user configured on the arc server	BuiltInRole	None	View
Virtual Machine User Login	View Virtual Machines in the portal and login as a regular user.	BuiltInRole	Compute	View

Showing 1 - 10 of 10 results.

Review + assign

Previous

Next

- Click to Select members

[Home](#) > [AVDgroup](#) | [Access control \(IAM\)](#) >

Add role assignment ...

Role

Members *

Review + assign

Selected role

Virtual Machine User Login

Assign access to

☒ User, group, or service principal

☐ Managed identity

Members

+ Select members

← click on select

Name	Object ID	Type
No members selected		

Description

Optional

Review + assign

Previous

Next

Select members

Select

piyush

No users, groups, or service principals found.

Selected members:

piyush

piyush@nafeet13outlook.onmicrosoft...

Remove

Select

Close

Section 3: Implement Azure Virtual Desktop Host pool

- Click to Assign

Home > AVDgroup | Access control (IAM) >

Add role assignment

Role

Members

Review + assign

Selected role

Virtual Machine User Login

Assign access to

User, group, or service principal

Managed identity

Members

+ Select members

Name	Object ID	Type
plyush	744ca71a-3792-4ed5-bc39-c250736d35...	User

Description

Optional

Review + assign

Previous

Next

- Again, Same Step
- Click on Search → Virtual Machine Administrator Login → Select and Assign
- Click to Next

Home > AVDgroup | Access control (IAM) >

Add role assignment

virtual machine

Type : All

Category : All

Name ↑↓	Description ↑↓	Type ↑↓	Category ↑↓	Details
Classic Virtual Machine Contributor	Lets you manage classic virtual machines, but not access to them, and not the virtual network or storage account they're c...	BuiltinRole	Compute	View
Desktop Virtualization Power On Contributor	Provide permission to the Azure Virtual Desktop Resource Provider to start virtual machines.	BuiltinRole	None	View
Desktop Virtualization Power On Off Contributor	Provide permission to the Azure Virtual Desktop Resource Provider to start and stop virtual machines.	BuiltinRole	None	View
Desktop Virtualization Virtual Machine Contribu...	This role is in preview and subject to change. Provide permission to the Azure Virtual Desktop Resource Provider to create,...	BuiltinRole	None	View
DevTest Labs User	Lets you connect, start, restart, and shutdown your virtual machines in your Azure DevTest Labs.	BuiltinRole	Devops	View
Virtual Machine Administrator Login	View Virtual Machines in the portal and login as administrator	BuiltinRole	Compute	View
Virtual Machine Contributor	Lets you manage virtual machines, but not access to them, and not the virtual network or storage account they're connect...	BuiltinRole	Compute	View
Virtual Machine Data Access Administrator (pre...	Manage access to Virtual Machines by adding or removing role assignments for the Virtual Machine Administrator Login a...	BuiltinRole	None	View
Virtual Machine Local User Login	View Virtual Machines in the portal and login as a local user configured on the arc server	BuiltinRole	None	View
Virtual Machine User Login	View Virtual Machines in the portal and login as a regular user.	BuiltinRole	Compute	View

Showing 1 - 10 of 10 results.

Review + assign

Previous

Next

Section 3: Implement Azure Virtual Desktop Host pool

- Click to Select members And Assign

Home > AVDgroup | Access control (IAM) >

Add role assignment

Role: **Members** Review + assign

Selected role Virtual Machine Administrator Login

Assign access to ☒ User, group, or service principal ☐ Managed identity

Members + Select members **← click on select**

Name	Object ID	Type
piyush	744ca71a-3792-4ed5-bc39-c250736d35...	User

Description Optional

Review + assign Previous Next

Select members

Select 0

piyush

No users, groups, or service principals found.

Selected members:

piyush
piyush@nafeel19outlook.onmicrosoft... Remove

Select Close

7. Add virtual desktop workspaces:

- In Azure Portal, search for Azure Virtual Desktop.
- Click on Create a host pool.
- In Mange → Click on Workspace.
- Click to Create Workspace.

Microsoft Azure Upgrade Search resources, services, and docs (G+)

Home > Azure Virtual Desktop

Azure Virtual Desktop | Workspaces

Search

« + Create Manage view Refresh Export to CSV Open query Assign tags Delete

Subscription equals all Resource group equals all Location equals all Add filter

Showing 0 to 0 of 0 records.

No grouping List view

Name	Resource group	Location	Subscription	Applicati...
------	----------------	----------	--------------	--------------

Manage

- Host pools
- Application groups
- Workspaces**
- App attach
- Scaling plans
- Users
- Custom image templates

Monitoring

- Insights
- Workbooks

Licensing

- Per-user access pricing

No workspaces to display

Try changing or clearing your filters.

Create workspace

Learn more

Give feedb

Section 3: Implement Azure Virtual Desktop Host pool

- Add existing created Resource group AVDgroup.
- Add a Workspace name and location West US, keep same location for all the process in AVD.

The screenshot shows the 'Create a workspace' page in the Azure portal. The page is titled 'Create a workspace' and includes a breadcrumb trail: 'Home > Azure Virtual Desktop | Workspaces >'. Below the title, there is a link to 'Learn more' about registering a workspace. The form is divided into two main sections: 'Project details' and 'Instance details'. In the 'Project details' section, the 'Subscription' is set to 'Free Trial' and the 'Resource group' is set to 'AVDgroup'. In the 'Instance details' section, the 'Workspace name' is 'AVDworkspace', the 'Friendly name' is 'workspace1', and the 'Location' is 'West US'. At the bottom of the form, there are three buttons: 'Review + create', '< Previous', and 'Next: Application groups >'.

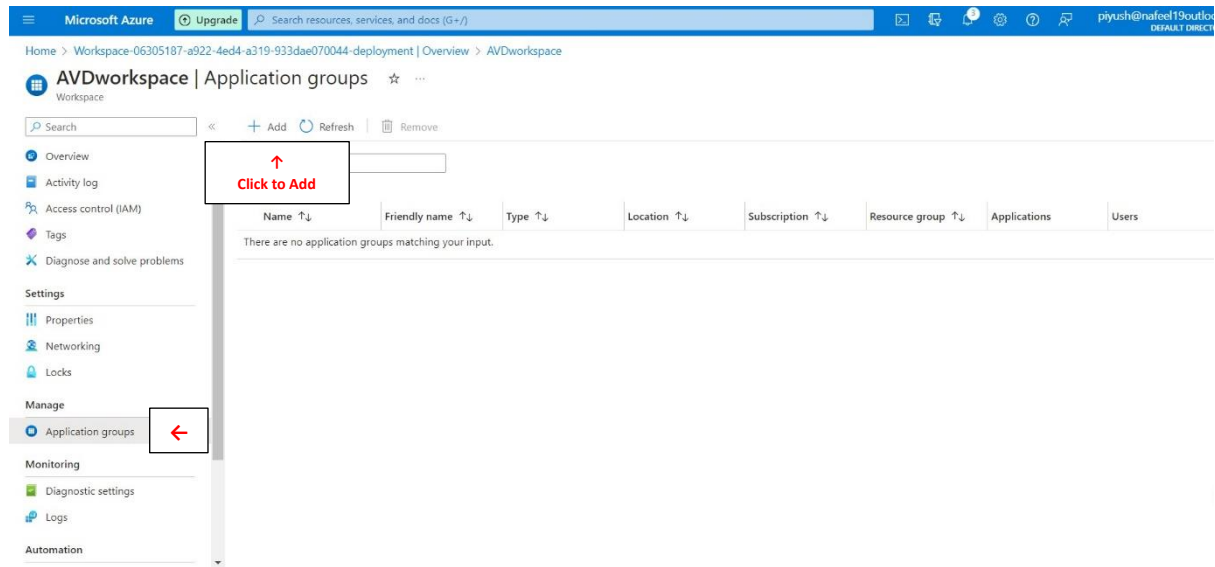
- Click to Create Workspace.

The screenshot shows the 'Your deployment is complete' page in the Azure portal. The page is titled 'Workspace-06305187-a922-4ed4-a319-933dae070044-deployment | Overview'. The main content area displays a green checkmark and the text 'Your deployment is complete'. Below this, the deployment details are shown: 'Deployment name : Workspace-06305187-a922-4ed4-a319-933dae070044-deployment', 'Subscription : Free Trial', 'Resource group : AVDgroup', 'Start time : 28/01/2024, 21:12:38', and 'Correlation ID : cd529595-b603-4c33-9431-6823f131c3'. The 'Next steps' section recommends 'Manage application groups' and includes a 'Go to resource' button. On the right side, there is a 'Cost management' section with a warning icon and the text 'Get notified to stay within your budget and prevent unexpected charges on your bill. Set up cost alerts >'. The left sidebar shows the 'Overview' tab selected, with other tabs like 'Inputs', 'Outputs', and 'Template'.

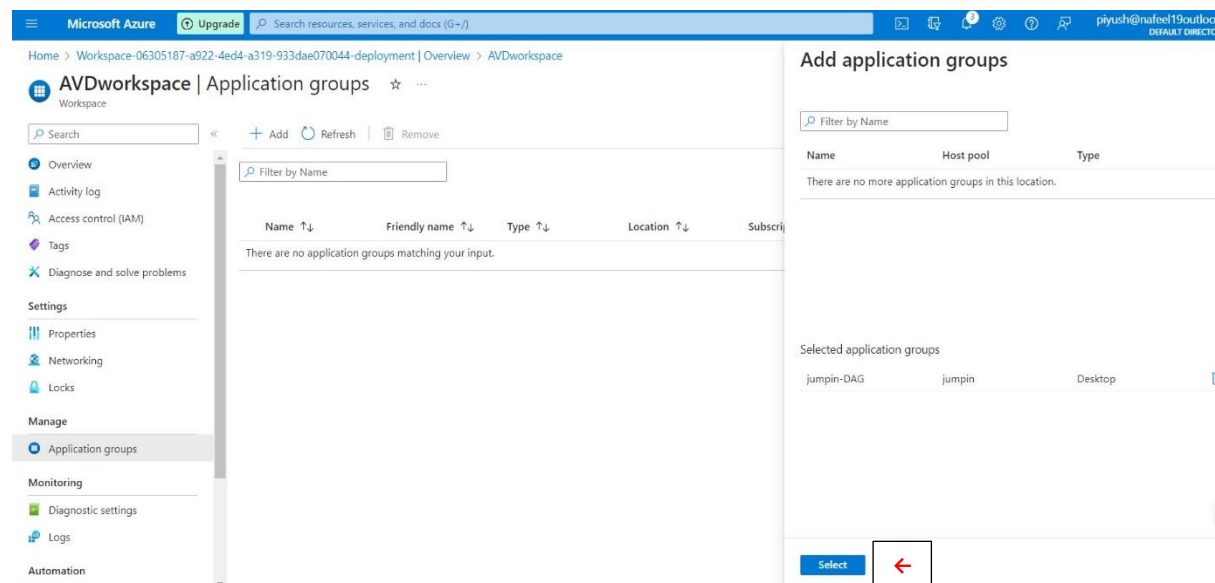
- In Manage → Click on Application group.

Section 3: Implement Azure Virtual Desktop Host pool

- Click on Add



- Select that Application groups, which we Created by host pool.

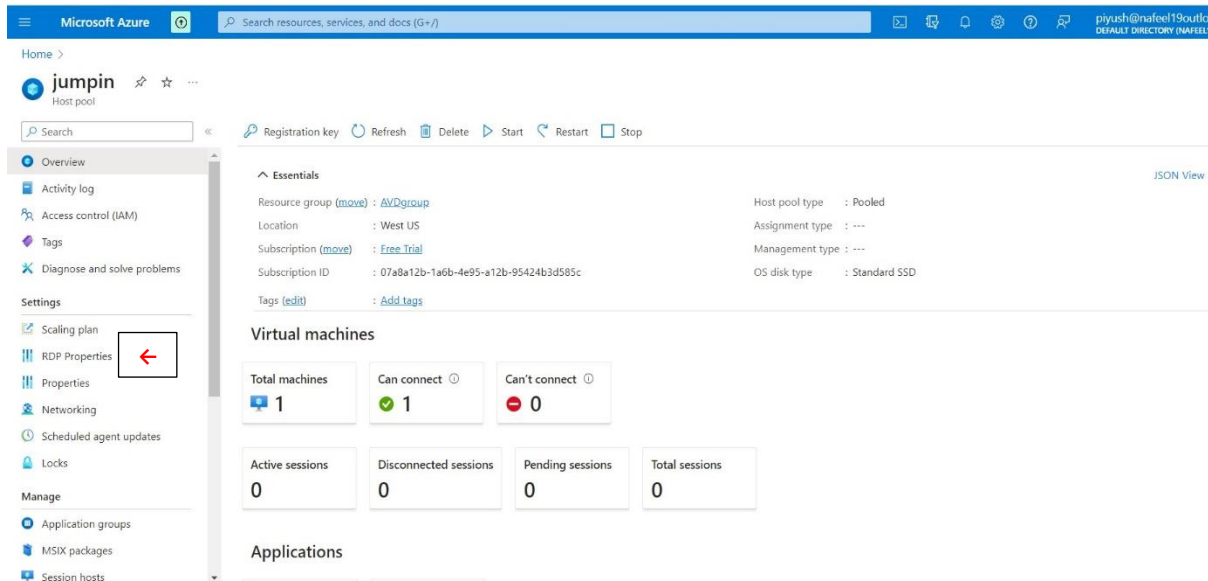


8. Configure Virtual Desktop host pools:

- In Azure Portal, search for Azure Virtual Desktop.
- Click on Host pool we Created jumpin

Section 3: Implement Azure Virtual Desktop Host pool

- In settings → Click RDP properties.



Microsoft Azure

Search resources, services, and docs (G+)

Home > jumpin Host pool

Registration key Refresh Delete Start Restart Stop

Overview
Activity log
Access control (IAM)
Tags
Diagnose and solve problems

Settings

Scaling plan
RDP Properties
Properties
Networking
Scheduled agent updates
Locks

Manage

Application groups
MSIX packages
Session hosts

Essentials

Resource group (move) : AVDgroup
Location : West US
Subscription (move) : Free Trial
Subscription ID : 07a8a12b-1a6b-4e95-a12b-95424b3d585c
Tags (edit) : Add tags

Host pool type : Pooled
Assignment type : ---
Management type : ---
OS disk type : Standard SSD

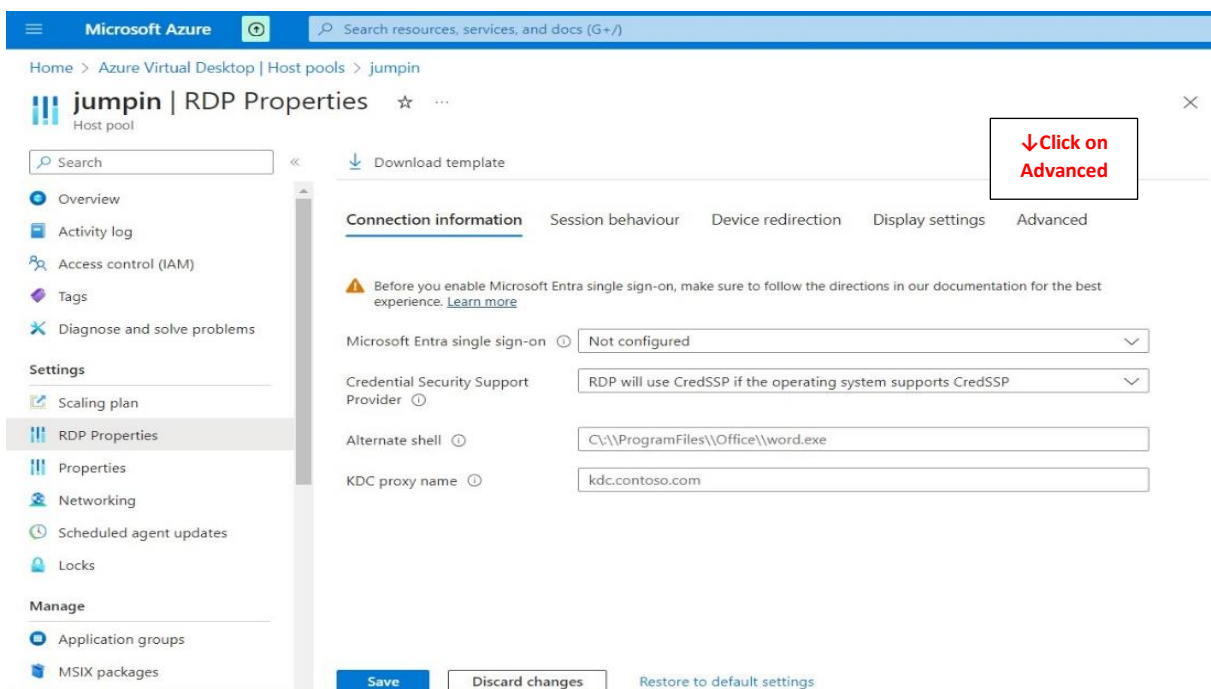
Virtual machines

Total machines : 1
Can connect : 1
Can't connect : 0

Active sessions : 0
Disconnected sessions : 0
Pending sessions : 0
Total sessions : 0

Applications

- Click on Advanced



Microsoft Azure

Search resources, services, and docs (G+)

Home > Azure Virtual Desktop | Host pools > jumpin

jumpin | RDP Properties

Download template

Connection information Session behaviour Device redirection Display settings Advanced

Before you enable Microsoft Entra single sign-on, make sure to follow the directions in our documentation for the best experience. [Learn more](#)

Microsoft Entra single sign-on : Not configured

Credential Security Support Provider : RDP will use CredSSP if the operating system supports CredSSP

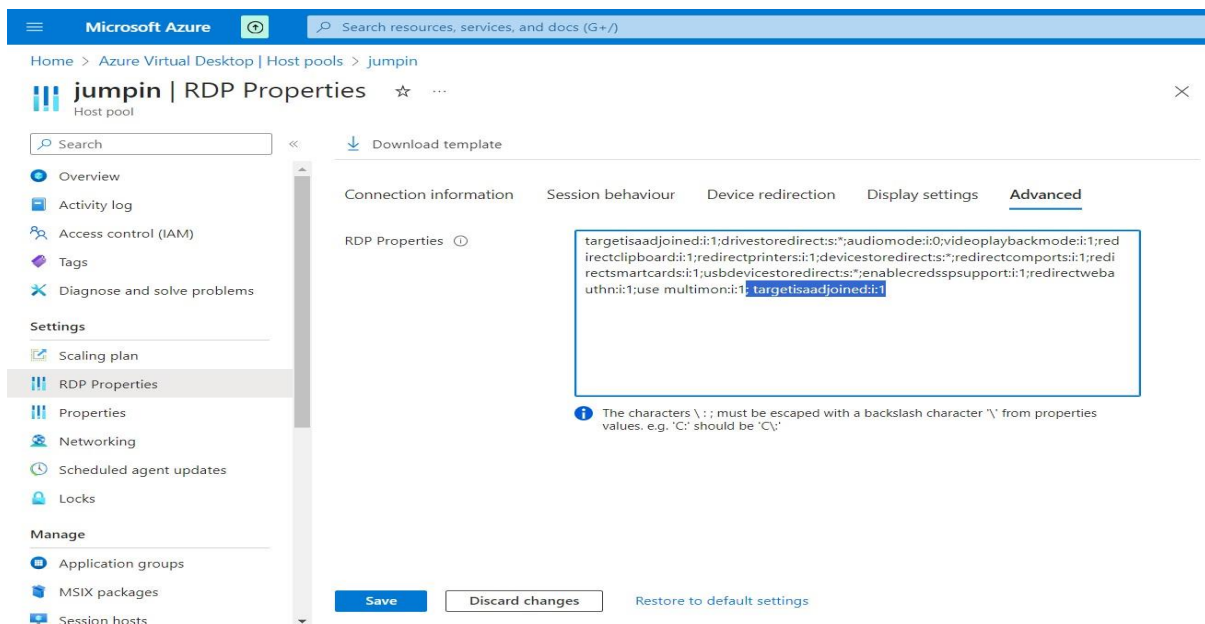
Alternate shell : C:\ProgramFiles\Office\word.exe

KDC proxy name : kdc.contoso.com

Save Discard changes Restore to default settings

Section 3: Implement Azure Virtual Desktop Host pool

- In Advanced type this → ;targetisaadjoined:i:1
- Click to Save

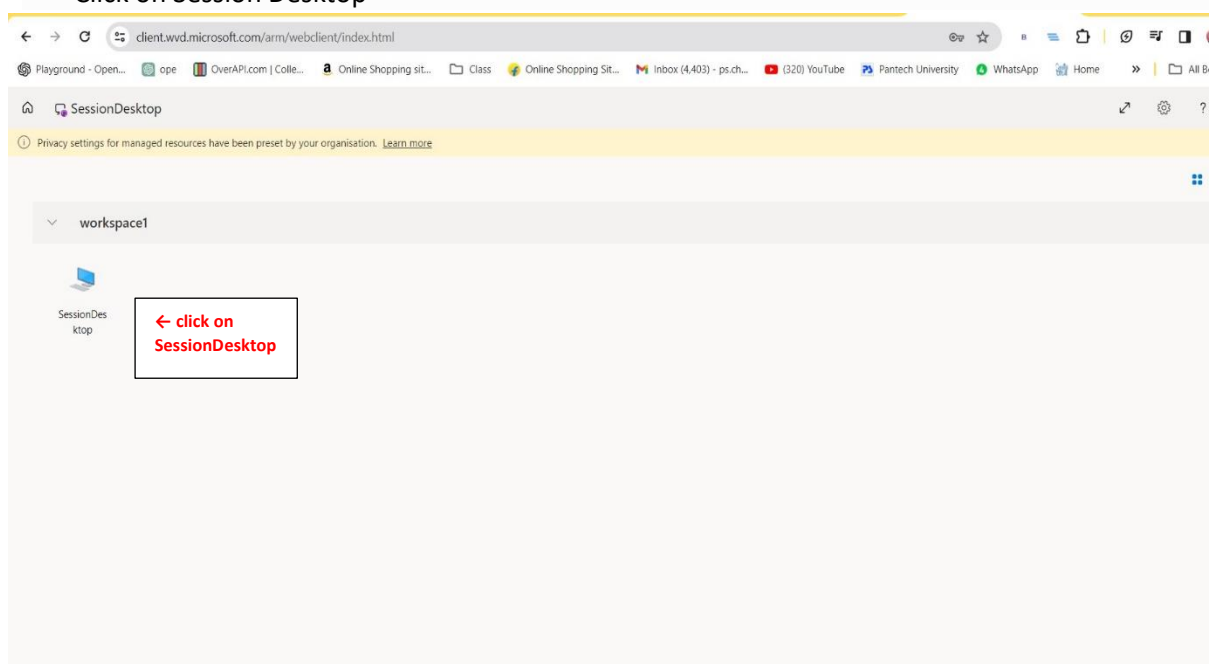


9. Log in to the Azure Virtual Desktop:

- After configuring your AVD host pool, you're ready to login to the Azure Virtual Desktop.
- You can use the following link:

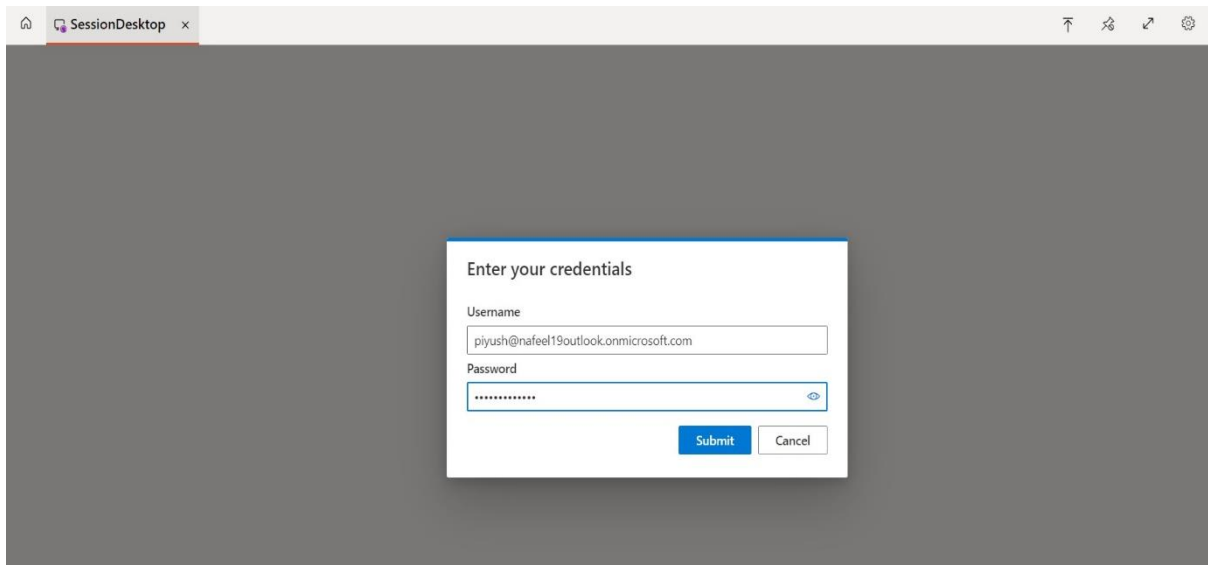
<https://rdweb.wvd.microsoft.com/arm/webclient/index.html>

- Copy this link and past in new tab
- Click on Session Desktop

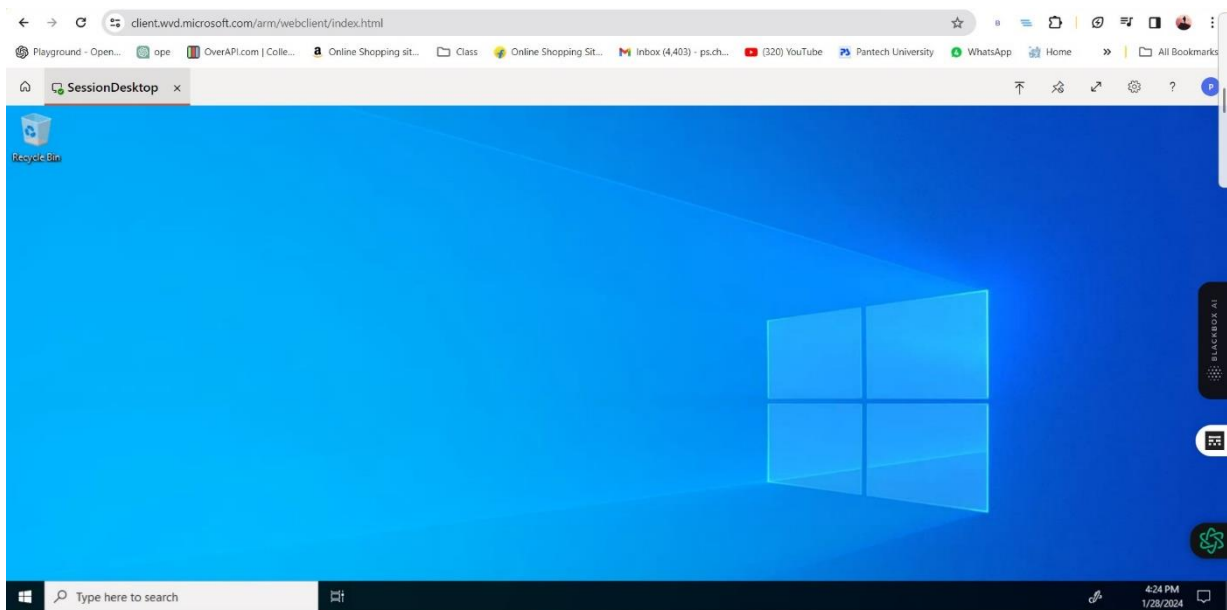


Section 3: Implement Azure Virtual Desktop Host pool

- Enter Username As per Selected AD User and Assign Role
- Enter Password and Click to Submit.



- Now AVD Session Desktop Setup is Ready



Reference: - <https://www.youtube.com/watch?v=Y5AB7AShdi0>