



Lab 1: Hands on AWS and Azure introduction


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IT457 Cloud Computing

1/21/24

Intro to Azure Fundamentals

modules in this learning path



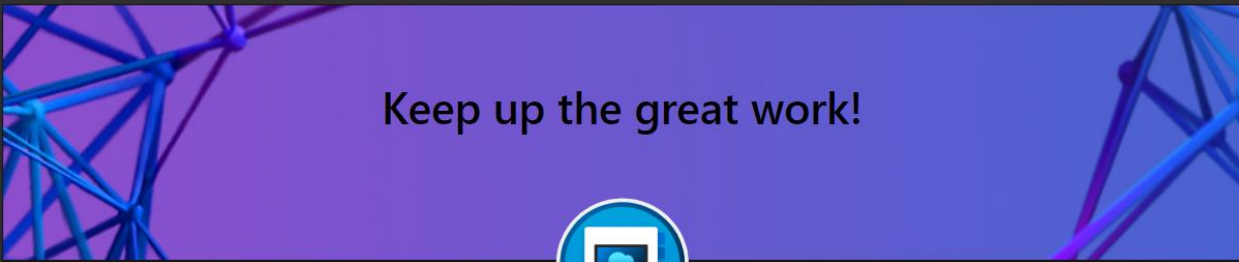
Describe cloud computing

23 min • Module • 8 Units 900 XP


This module introduces you to cloud computing. It covers things such as cloud concepts, deployment models, and understanding shared responsibility in the cloud.

Overview ^

- Introduction to Microsoft Azure Fundamentals 2 min ✓
- Introduction to cloud computing 1 min ✓
- What is cloud computing 3 min ✓
- Describe the shared responsibility model 3 min ✓
- Define cloud models 4 min ✓
- Describe the consumption-based model 3 min ✓
- Knowledge check 5 min ✓
- Summary 2 min ✓



Keep up the great work!



Describe cloud computing

You have earned an achievement!

Congratulations, but what should you do next?

First, let's share your achievement

You put in the time to learn something new, let your network share in your victory!



Making availability set.

✓ Your deployment is complete



Deployment name : Microsoft.AvailabilitySet-20240123082227

Subscription : [Azure for Students](#)

Resource group : [Lab1](#)

Start time : 1/23/2024, 8:28:50 AM

Correlation ID : f43fd192-c1b8-41d4-881c-a8b19b33b362

Deployment details

Resource	Type	Status	Operation details
✓ lab1	Availability set	OK	Operation details

Next steps

[Go to resource](#)

Public load

Creating NAT Gateway

Project details

Select a subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

Subscription *

Azure for Students

Resource group *

(New) load-balancer-rg

[Create new](#)

Instance details

NAT gateway name *

lb-nat-gateway

Region *

East US

Availability zone ⓘ

No Zone

TCP idle timeout (minutes) * ⓘ

15

4-120

Load Balancer



- Power Shell in VM1:

```
Administrator: Windows PowerShell
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS C:\Users\user01> Install-WindowsFeature -name Web-Server -IncludeManagementTools
Success Restart Needed Exit Code      Feature Result
-----
True      No              Success      {Common HTTP Features, Default Document, D...

PS C:\Users\user01> Remove-Item C:\inetpub\wwwroot\iisstart.htm
PS C:\Users\user01> Add-Content -Path "C:\inetpub\wwwroot\iisstart.htm" -Value $("Hello World from " + $env:computername)
PS C:\Users\user01>
```

- Power Shell in VM2:

```
Administrator: Windows PowerShell
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS C:\Users\user02> Install-WindowsFeature -name Web-Server -IncludeManagementTools
Success Restart Needed Exit Code      Feature Result
-----
True      No              Success      {Common HTTP Features, Default Document, D...

PS C:\Users\user02> Remove-Item C:\inetpub\wwwroot\iisstart.htm
PS C:\Users\user02> Add-Content -Path "C:\inetpub\wwwroot\iisstart.htm" -Value $("Hello World from " + $env:computername)
PS C:\Users\user02>
```



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Internal Load

Making VM1

```
Administrator: Windows PowerShell
Windows PowerShell
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the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS C:\Users\user01> Install-WindowsFeature -name Web-Server -IncludeManagementTools
Success Restart Needed Exit Code      Feature Result
-----
True      No          Success      {Common HTTP Features, Default Document, D...

PS C:\Users\user01> Remove-Item C:\inetpub\wwwroot\iisstart.htm
PS C:\Users\user01> Add-Content -Path "C:\inetpub\wwwroot\iisstart.htm" -Value $("Hello World from " + $env:computername)
PS C:\Users\user01> _
```



- Power Shell in VM2:

```
Administrator: Windows PowerShell
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS C:\Users\user02> Install-WindowsFeature -name Web-Server -IncludeManagementTools

Success Restart Needed Exit Code      Feature Result
-----
True      No              Success      {Common HTTP Features, Default Document, D...

PS C:\Users\user02> Remove-Item C:\inetpub\wwwroot\iisstart.htm
PS C:\Users\user02> Add-Content -Path "C:\inetpub\wwwroot\iisstart.htm" -Value $("Hello World from " + $env:computername)
PS C:\Users\user02>
```

- Output in VM1:



- Output in VM2:



Azure Load Balancer:



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Virtual machines

Default Directory

+ Create ▾ Switch to classic Reservations ▾ Manage view ▾ Refresh Export to CSV Open query | Assign tags Start Restart Stc

Filter for any field... Subscription equals all Type equals all Resource group equals all Location equals all Add filter

Showing 1 to 4 of 4 records. No grouping ▾ Lis

<input type="checkbox"/> Name ↑↓	Type ↑↓	Subscription ↑↓	Resource group ↑↓	Location ↑↓	Status ↑↓	Operating system ↑↓
<input type="checkbox"/> lb-VM1	Virtual machine	Azure for Students	load-balancer-rg	East US	Running	Windows
<input type="checkbox"/> lb-VM2	Virtual machine	Azure for Students	load-balancer-rg	East US	Running	Windows
<input type="checkbox"/> lb-VM3	Virtual machine	Azure for Students	load-balancer-rg	East US	Running	Windows
<input type="checkbox"/> lb-VM4	Virtual machine	Azure for Students	load-balancer-rg	East US	Running	Windows

- VM1:

Run Command Script

RunPowerShellScript

Script execution complete

PowerShell Script

```
1 Install-WindowsFeature -name Web-Server -IncludeManagementTools
2
3 Remove-Item C:\inetpub\wwwroot\iisstart.htm
4
5 Add-Content -Path "C:\inetpub\wwwroot\iisstart.htm" -Value $("Hello World from " + $env:comp
```

Run

Output

```
Success Restart Needed Exit Code Feature Result
-----
True No Success {Common HTTP Features, Default Document, D...
```

- VM2:

Run Command Script

RunPowerShellScript

Script execution complete

PowerShell Script

```
1 Install-WindowsFeature -name Web-Server -IncludeManagementTools
2
3 Remove-Item C:\inetpub\wwwroot\iisstart.htm
4
5 Add-Content -Path "C:\inetpub\wwwroot\iisstart.htm" -Value $("Hello World from " + $env:comp
```

Run

Output

```
Success Restart Needed Exit Code Feature Result
-----
True No Success {Common HTTP Features, Default Document, D...
```



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- VM3:

Run Command Script

RunPowerShellScript

Script execution complete

PowerShell Script

```
1 Install-WindowsFeature -name Web-Server -IncludeManagementTools
2
3 Remove-Item C:\inetpub\wwwroot\iisstart.htm
4
5 Add-Content -Path "C:\inetpub\wwwroot\iisstart.htm" -Value $("Hello World from " + $env:computername)
```

Run

Output

Success	Restart Needed	Exit Code	Feature Result
True	No	Success	{Common HTTP Features, Default Document, D...

- VM4:

Run Command Script

RunPowerShellScript

Script execution complete

PowerShell Script

```
1 Install-WindowsFeature -name Web-Server -IncludeManagementTools
2
3 Remove-Item C:\inetpub\wwwroot\iisstart.htm
4
5 Add-Content -Path "C:\inetpub\wwwroot\iisstart.htm" -Value $("Hello World from " + $env:computername)
```

Run

IP Address:

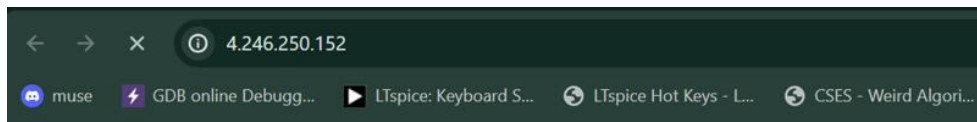


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^ Essentials JSON View	
Resource group (move)	SKU
load-balancer-rg	Standard
Location (move)	Tier
East US	Regional
Subscription (move)	IP address
Azure for Students	4.246.250.152
Subscription ID	DNS name
97e43b90-2dab-44c3-a90a-fa73529dceac	-
	Associated to
	load-balancer
	Virtual machine
	-

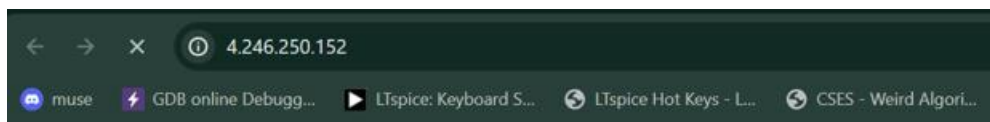
Outputs:

- VM1:



Hello World from myVM1

- VM2:

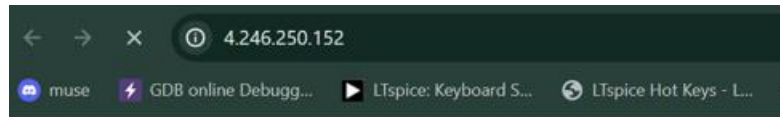


Hello World from myVM2

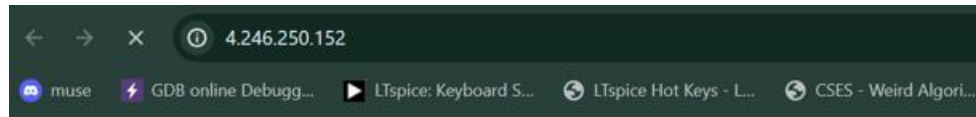
- VM3:



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- VM4:



Hello World from myVM4