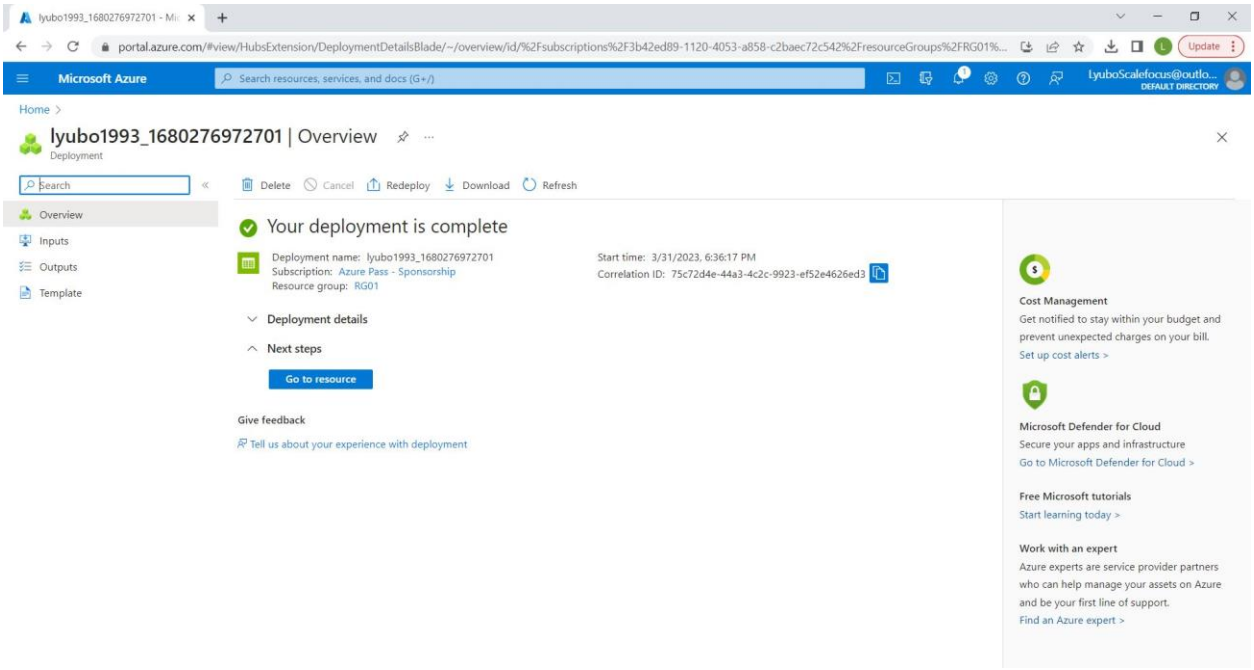
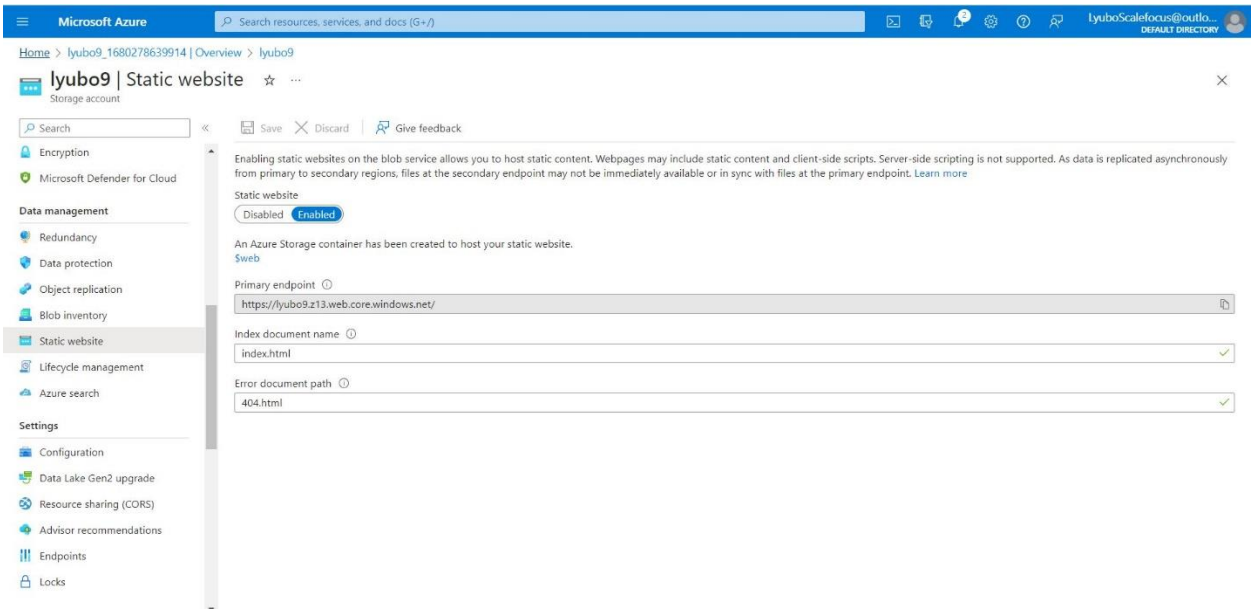
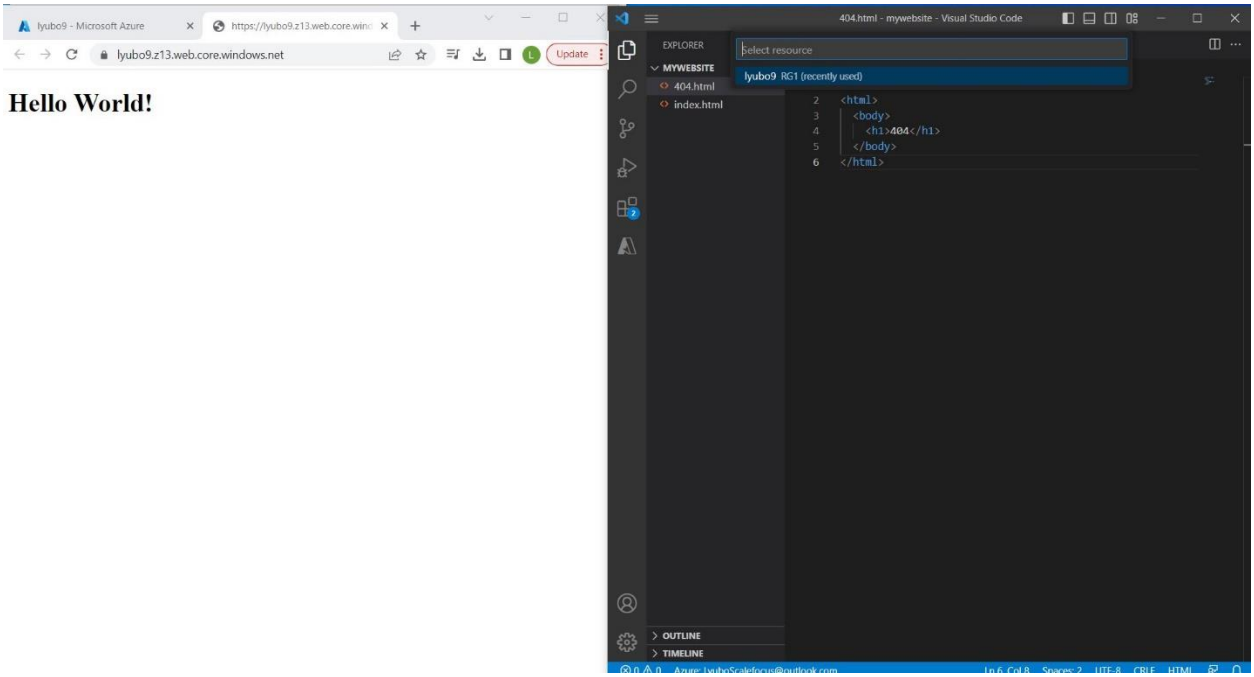
MID-TERM

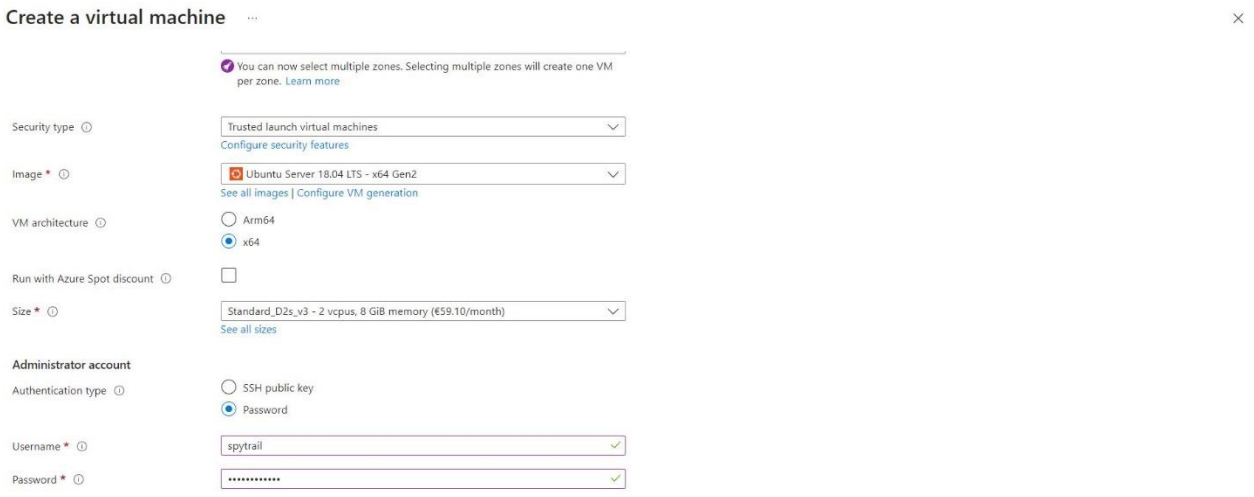
PART1

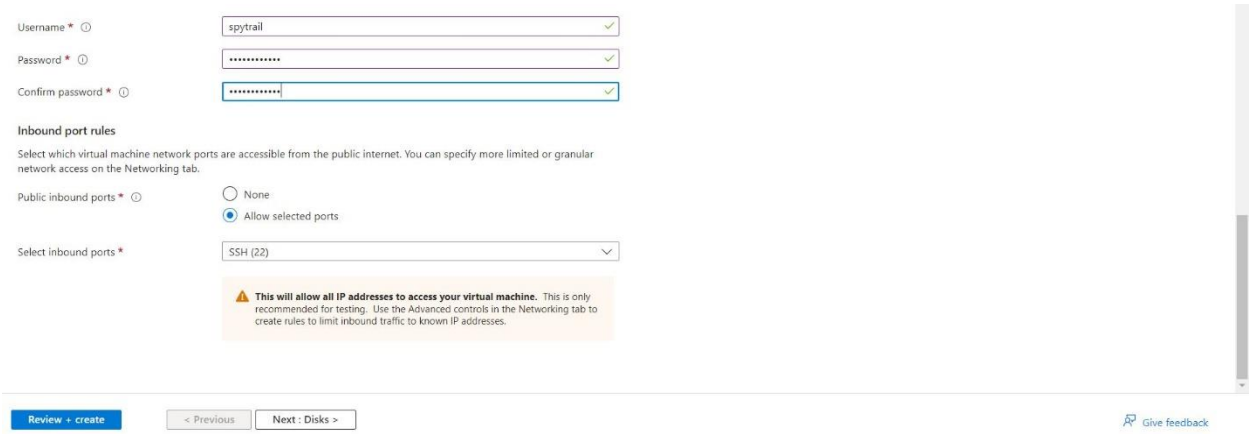


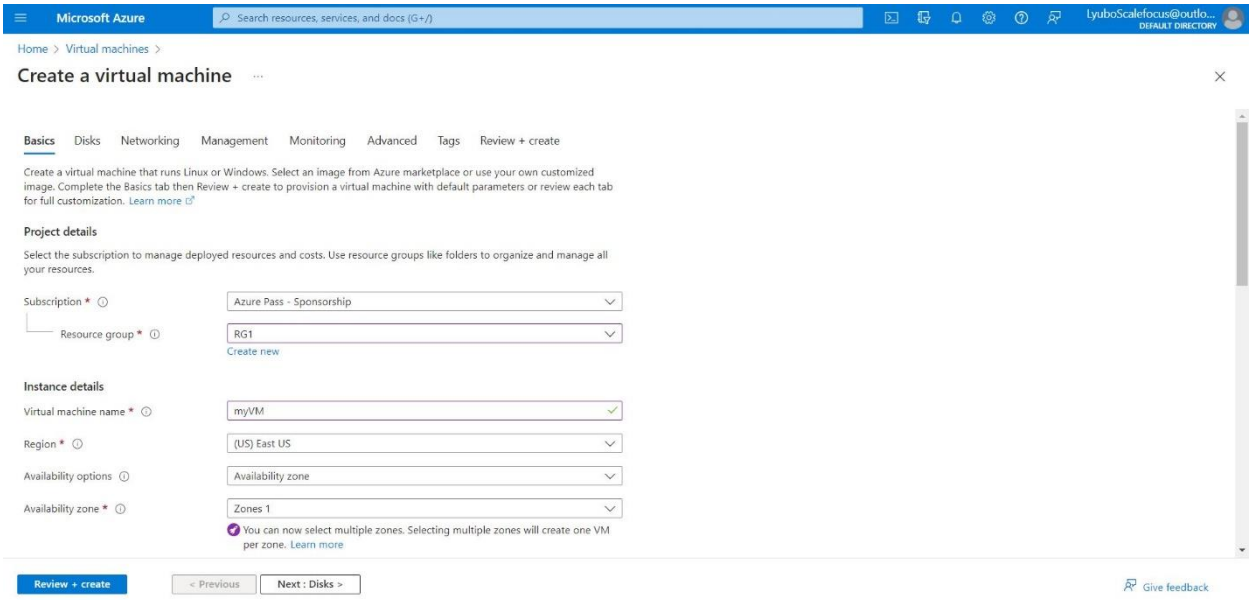


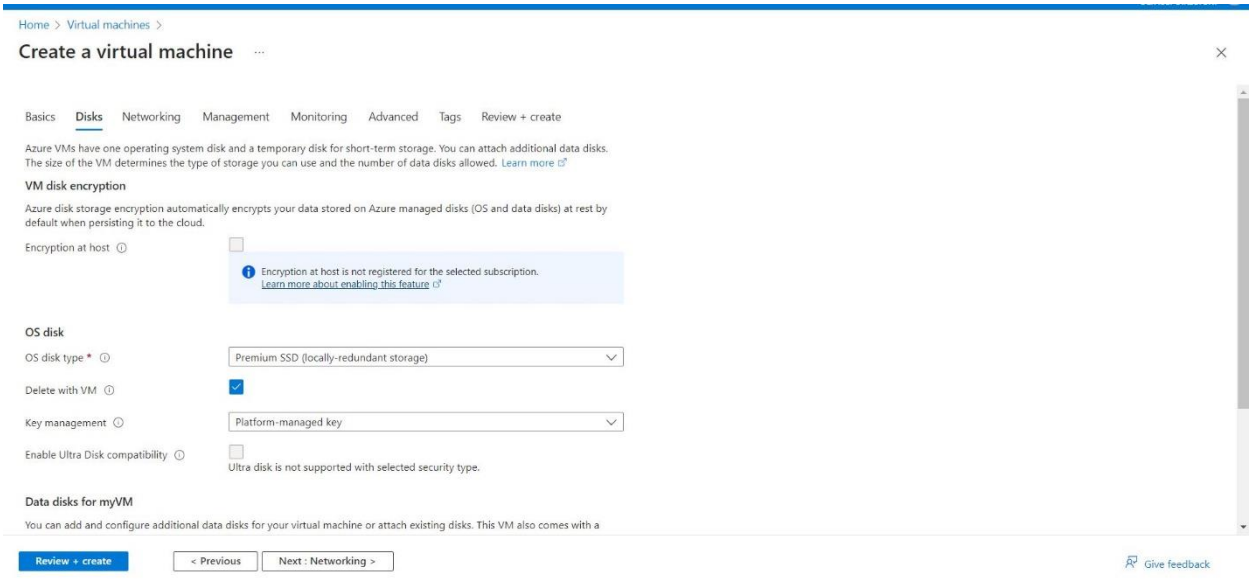

lyubo9 - Microsoft Azure
lyubo9.z13.web.core.windows.net
Update
Hello World!
404.html - mywebsite - Visual Studio Code
EXPLORER
Select resource
lyubo9 RG1 (recently used)
MYWEBSITE
404.html
index.html
<html>
<body>
<h1>404</h1>
</body>
</html>
OUTLINE
TIMELINE

PART 2

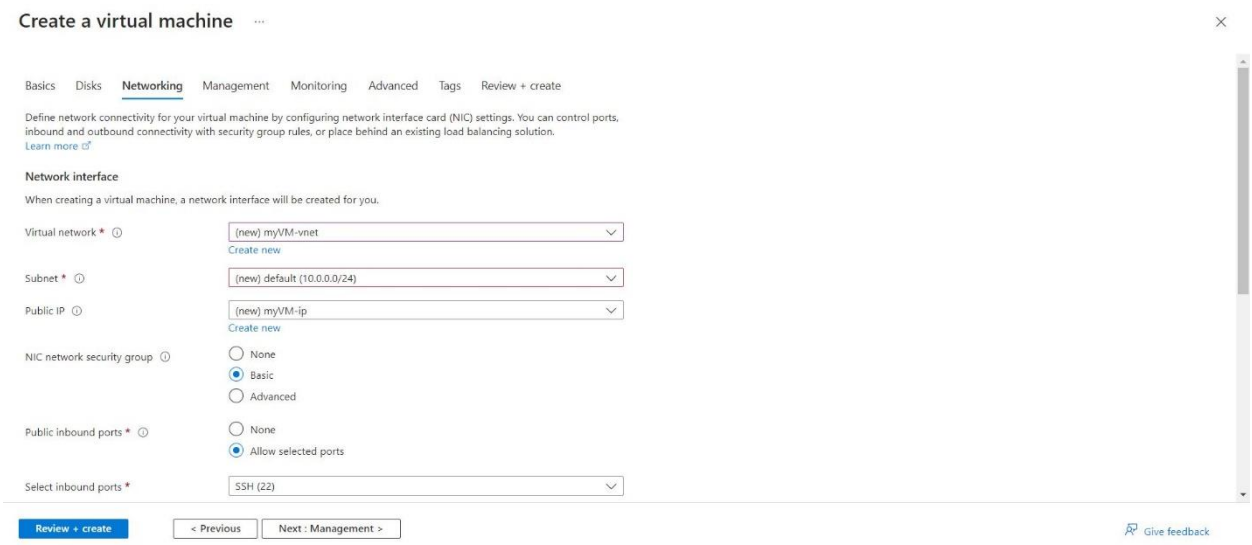

Create a virtual machine
You can now select multiple zones. Selecting multiple zones will create one VM per zone. Learn more
Security type
Trusted launch virtual machines
Configure security features
Image *
Ubuntu Server 18.04 LTS - x64 Gen2
See all images | Configure VM generation
VM architecture
Arm64
x64
Run with Azure Spot discount
Size *
Standard_D2s_v3 - 2 vcpus, 8 GiB memory (€59.10/month)
See all sizes
Administrator account
Authentication type
SSH public key
Password
Username *
spytrail
Password *

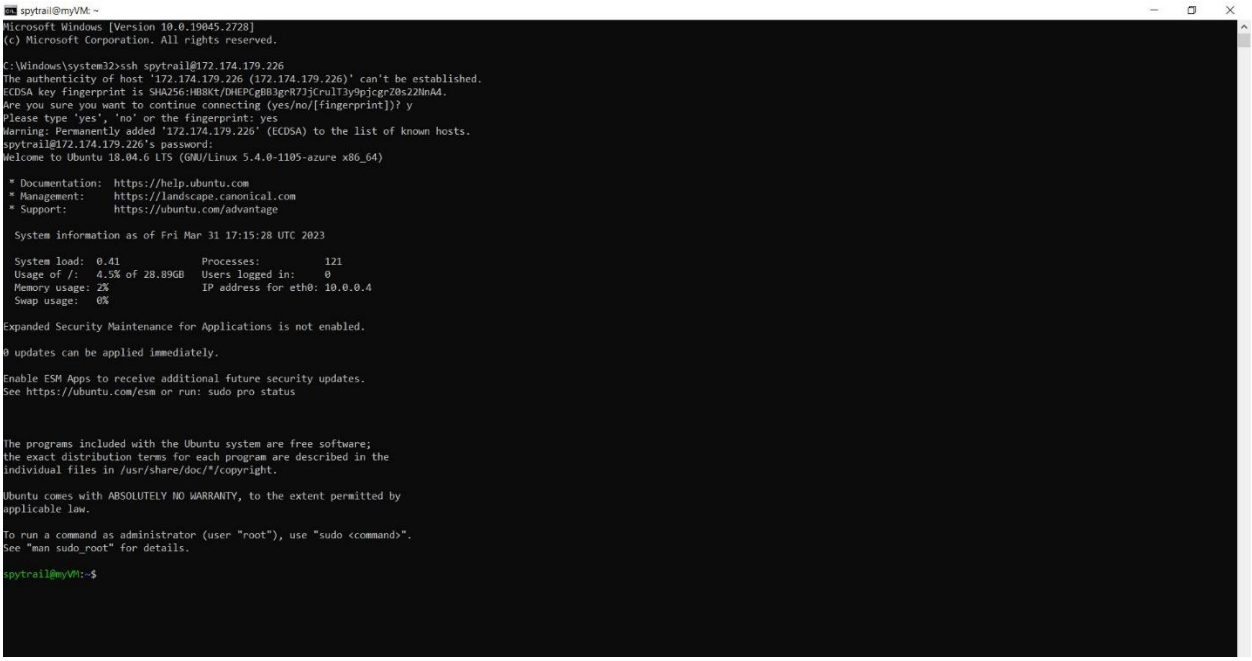

Username *
spytrail
Password *
Confirm password *
Inbound port rules
Select which virtual machine network ports are accessible from the public internet. You can specify more limited or granular network access on the Networking tab.
Public inbound ports *
None
Allow selected ports
Select inbound ports *
SSH (22)
This will allow all IP addresses to access your virtual machine. This is only recommended for testing. Use the Advanced controls in the Networking tab to create rules to limit inbound traffic to known IP addresses.
Review + create
< Previous
Next : Disks >
Give feedback

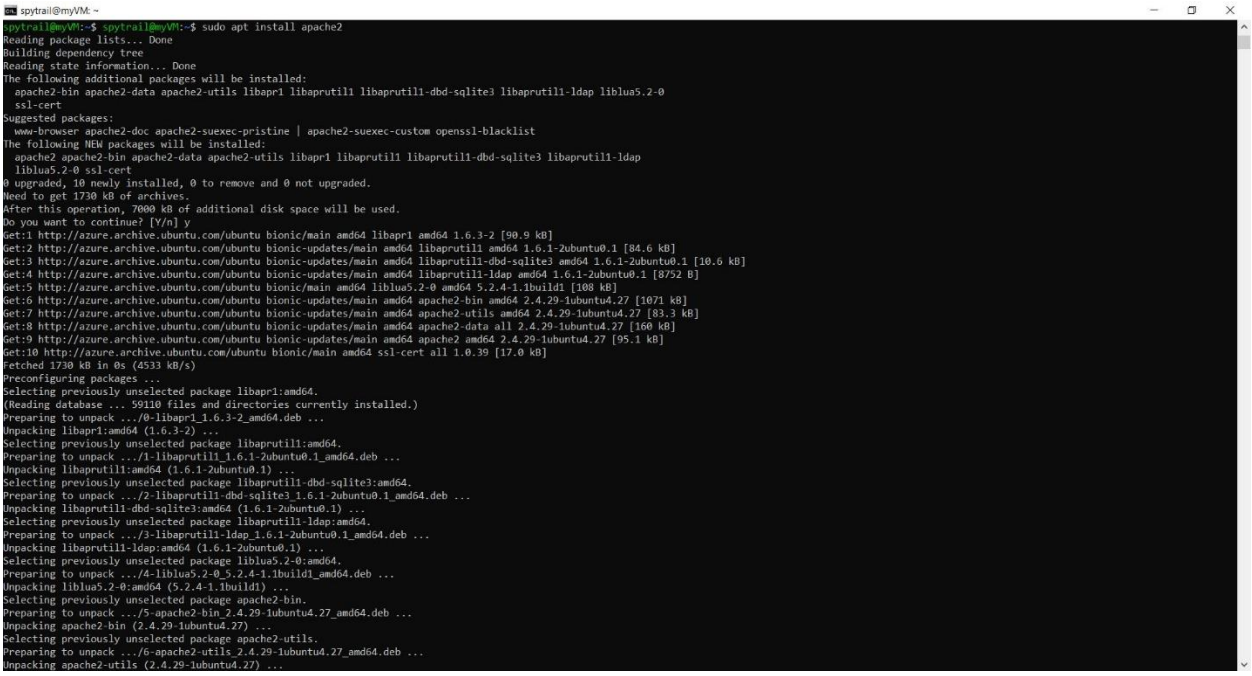

Microsoft Azure
Search resources, services, and docs (G+/)
LyuboScalefocus@outlo...
DEFAULT DIRECTORY
Home > Virtual machines >
Create a virtual machine
Basics Disks Networking Management Monitoring Advanced Tags Review + create
Create a virtual machine that runs Linux or Windows. Select an image from Azure marketplace or use your own customized image. Complete the Basics tab then Review + create to provision a virtual machine with default parameters or review each tab for full customization. Learn more
Project details
Select the subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.
Subscription *
Azure Pass - Sponsorship
Resource group *
RG1
Create new
Instance details
Virtual machine name *
myVM
Region *
(US) East US
Availability options
Availability zone
Availability zone *
Zones 1
You can now select multiple zones. Selecting multiple zones will create one VM per zone. Learn more
Review + create
< Previous
Next : Disks >
Give feedback


Home > Virtual machines >
Create a virtual machine
Basics Disks Networking Management Monitoring Advanced Tags Review + create
Azure VMs have one operating system disk and a temporary disk for short-term storage. You can attach additional data disks. The size of the VM determines the type of storage you can use and the number of data disks allowed. Learn more
VM disk encryption
Azure disk storage encryption automatically encrypts your data stored on Azure managed disks (OS and data disks) at rest by default when persisting it to the cloud.
Encryption at host
Encryption at host is not registered for the selected subscription.
Learn more about enabling this feature
OS disk
OS disk type *
Premium SSD (locally-redundant storage)
Delete with VM
Key management
Platform-managed key
Enable Ultra Disk compatibility
Ultra disk is not supported with selected security type.
Data disks for myVM
You can add and configure additional data disks for your virtual machine or attach existing disks. This VM also comes with a
Review + create
< Previous
Next : Networking >
Give feedback

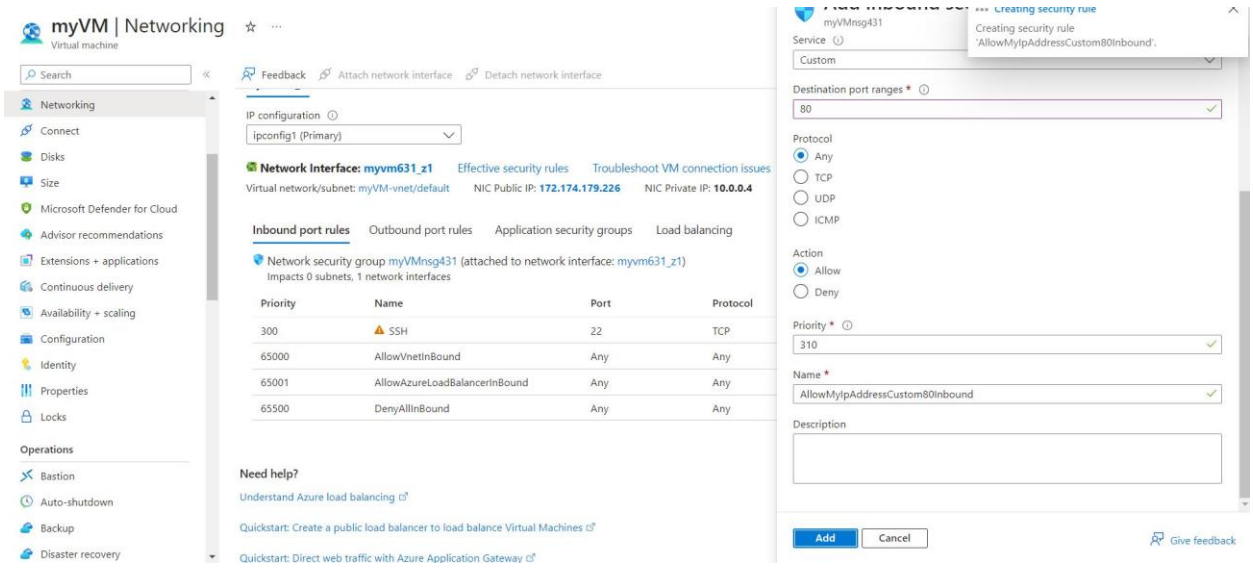
]

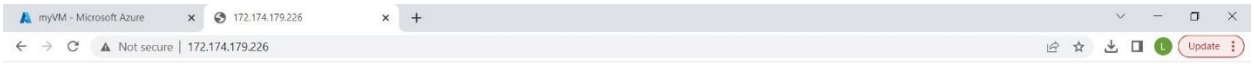

Create a virtual machine
Basics
Disks
Networking
Management
Monitoring
Advanced
Tags
Review + create
Define network connectivity for your virtual machine by configuring network interface card (NIC) settings. You can control ports, inbound and outbound connectivity with security group rules, or place behind an existing load balancing solution.
Learn more
Network interface
When creating a virtual machine, a network interface will be created for you.
Virtual network *
(new) myVM-vnet
Create new
Subnet *
(new) default (10.0.0.0/24)
Public IP
(new) myVM-ip
Create new
NIC network security group
None
Basic
Advanced
Public inbound ports *
None
Allow selected ports
Select inbound ports *
SSH (22)
Review + create
< Previous
Next : Management >
Give feedback


spytrail@myVM: ~
Microsoft Windows [Version 10.0.19045.2728]
(c) Microsoft Corporation. All rights reserved.
C:\Windows\system32>ssh spytrail@172.174.179.226
The authenticity of host '172.174.179.226 (172.174.179.226)' can't be established.
ECDSA key fingerprint is SHA256:HB8Kt/DHEPCgBB3grR7JjCrulT3y9pjcgrZ0s22HnA4.
Are you sure you want to continue connecting (yes/no/[fingerprint])? y
Please type 'yes', 'no' or the fingerprint: yes
Warning: Permanently added '172.174.179.226' (ECDSA) to the list of known hosts.
spytrail@172.174.179.226's password:
Welcome to Ubuntu 18.04.6 LTS (GNU/Linux 5.4.0-1105-azure x86_64)
* Documentation: https://help.ubuntu.com
* Management: https://landscape.canonical.com
* Support: https://ubuntu.com/advantage
System information as of Fri Mar 31 17:15:28 UTC 2023
System load: 0.41 Processes: 121
Usage of /: 4.5% of 28.89GB Users logged in: 0
Memory usage: 2% IP address for eth0: 10.0.0.4
Swap usage: 0%
Expanded Security Maintenance for Applications is not enabled.
0 updates can be applied immediately.
Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status
The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.
Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.
spytrail@myVM:~$


spytrail@myVM: ~
spytrail@myVM:~$ sudo apt install apache2
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
apache2-bin apache2-data apache2-utils libapr1 libaprutil1 libaprutil1-dbd-sqlite3 libaprutil1-ldap liblua5.2-0
ssl-cert
Suggested packages:
www-browser apache2-doc apache2-suexec-pristine | apache2-suexec-custom openssl-blacklist
The following NEW packages will be installed:
apache2 apache2-bin apache2-data apache2-utils libapr1 libaprutil1 libaprutil1-dbd-sqlite3 libaprutil1-ldap
liblua5.2-0 ssl-cert
0 upgraded, 10 newly installed, 0 to remove and 0 not upgraded.
Need to get 1730 kB of archives.
After this operation, 7000 kB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://azure.archive.ubuntu.com/ubuntu bionic/main amd64 libapr1 amd64 1.6.3-2 [90.9 kB]
Get:2 http://azure.archive.ubuntu.com/ubuntu bionic-updates/main amd64 libaprutil1 amd64 1.6.1-2ubuntu0.1 [84.6 kB]
Get:3 http://azure.archive.ubuntu.com/ubuntu bionic-updates/main amd64 libaprutil1-dbd-sqlite3 amd64 1.6.1-2ubuntu0.1 [10.6 kB]
Get:4 http://azure.archive.ubuntu.com/ubuntu bionic-updates/main amd64 libaprutil1-ldap amd64 1.6.1-2ubuntu0.1 [8752 B]
Get:5 http://azure.archive.ubuntu.com/ubuntu bionic/main amd64 liblua5.2-0 amd64 5.2.4-1.1build1 [108 kB]
Get:6 http://azure.archive.ubuntu.com/ubuntu bionic-updates/main amd64 apache2-bin amd64 2.4.29-1ubuntu4.27 [1071 kB]
Get:7 http://azure.archive.ubuntu.com/ubuntu bionic-updates/main amd64 apache2-utils amd64 2.4.29-1ubuntu4.27 [83.3 kB]
Get:8 http://azure.archive.ubuntu.com/ubuntu bionic-updates/main amd64 apache2-data all 2.4.29-1ubuntu4.27 [160 kB]
Get:9 http://azure.archive.ubuntu.com/ubuntu bionic-updates/main amd64 apache2 amd64 2.4.29-1ubuntu4.27 [95.1 kB]
Get:10 http://azure.archive.ubuntu.com/ubuntu bionic/main amd64 ssl-cert all 1.0.39 [17.0 kB]
Fetched 1730 kB in 0s (4533 kB/s)
Preconfiguring packages ...
Selecting previously unselected package libapr1:amd64.
(Reading database ... 59110 files and directories currently installed.)
Preparing to unpack .../0-libapr1_1.6.3-2_amd64.deb ...
Unpacking libapr1:amd64 (1.6.3-2) ...
Selecting previously unselected package libaprutil1:amd64.
Preparing to unpack .../1-libaprutil1_1.6.1-2ubuntu0.1_amd64.deb ...
Unpacking libaprutil1:amd64 (1.6.1-2ubuntu0.1) ...
Selecting previously unselected package libaprutil1-dbd-sqlite3:amd64.
Preparing to unpack .../2-libaprutil1-dbd-sqlite3_1.6.1-2ubuntu0.1_amd64.deb ...
Unpacking libaprutil1-dbd-sqlite3:amd64 (1.6.1-2ubuntu0.1) ...
Selecting previously unselected package libaprutil1-ldap:amd64.
Preparing to unpack .../3-libaprutil1-ldap_1.6.1-2ubuntu0.1_amd64.deb ...
Unpacking libaprutil1-ldap:amd64 (1.6.1-2ubuntu0.1) ...
Selecting previously unselected package liblua5.2-0:amd64.
Preparing to unpack .../4-liblua5.2-0_5.2.4-1.1build1_amd64.deb ...
Unpacking liblua5.2-0:amd64 (5.2.4-1.1build1) ...
Selecting previously unselected package apache2-bin.
Preparing to unpack .../5-apache2-bin_2.4.29-1ubuntu4.27_amd64.deb ...
Unpacking apache2-bin (2.4.29-1ubuntu4.27) ...
Selecting previously unselected package apache2-utils.
Preparing to unpack .../6-apache2-utils_2.4.29-1ubuntu4.27_amd64.deb ...
Unpacking apache2-utils (2.4.29-1ubuntu4.27) ...

spytrail@myVM:/var/www/html$ sudo nano index.html
spytrail@myVM:/var/www/html$


myVM | Networking
Virtual machine
Search
Networking
Connect
Disks
Size
Microsoft Defender for Cloud
Advisor recommendations
Extensions + applications
Continuous delivery
Availability + scaling
Configuration
Identity
Properties
Locks
Operations
Bastion
Auto-shutdown
Backup
Disaster recovery
Feedback
Attach network interface
Detach network interface
IP configuration
ipconfig1 (Primary)
Network Interface: myvm631_z1
Effective security rules
Troubleshoot VM connection issues
Virtual network/subnet: myVM-vnet/default
NIC Public IP: 172.174.179.226
NIC Private IP: 10.0.0.4
Inbound port rules
Outbound port rules
Application security groups
Load balancing
Network security group myVMnsg431 (attached to network interface: myvm631_z1)
Impacts 0 subnets, 1 network interfaces
Priority
Name
Port
Protocol
300
SSH
22
TCP
65000
AllowVnetInBound
Any
Any
65001
AllowAzureLoadBalancerInBound
Any
Any
65500
DenyAllInBound
Any
Any
Need help?
Understand Azure load balancing
Quickstart: Create a public load balancer to load balance Virtual Machines
Quickstart: Direct web traffic with Azure Application Gateway
myVMnsg431
Creating security rule
Creating security rule
'AllowMyIpAddressCustom80Inbound'.
Service
Custom
Destination port ranges *
80
Protocol
Any
TCP
UDP
ICMP
Action
Allow
Deny
Priority *
310
Name *
AllowMyIpAddressCustom80Inbound
Description
Add
Cancel
Give feedback


myVM - Microsoft Azure
172.174.179.226
Not secure | 172.174.179.226
Update

Hello World!