Create Azure Windows Virtual Machine (Portal)

(LAB-103-02-01)

Part A: Create Windows Virtual Machine

1. The first thing to do when creating virtual machines with the Azure Portal is log in to Azure with your administrative credentials.

2. Click the *virtual machines* link in the left-hand navigation bar.

3. Click the *add* button to start the creation process.

4. You will be required to fill in specific information regarding your virtual machine, including:

    a. *Subscription*:   Select default subscription group

    b. *Resource Group*:   Provide resource group name
    RG-LAB-103-02-01

    c. *Name*:   Provide virtual machine name
    VMLAB1030201

    d. *Region*:   Select region **(US) East US**

    e. *Image*:
        i. Select Browse all image
        ii. Select Compute
        iii. Search Windows Server 2019 Datacenter
        iv. Select **Windows Server 2019 Datacenter [Microsoft]**

    f. *Size*:
        I. Select Search
        II. Select **DS1_v2**

    g. *Administrator Account*:
        i. Provide Username
        ii. Provide Password

    h. *Inbound Port Rules*:
        i. Select Allow selected ports
        ii. Select
            - *Port 3389*

5. Click the *Next: Disks* button to continue

    Info: Now it shows several choices regarding what storage you want to mimic for your VM. For most situations, the defaults are fine.

6. Click the ***Next***: ***Networking*** button to continue.

   Info: The default settings should be adequate for most general business purposes. Changes should only be made when you have specific requirements that the defaults do not cover.

7. Click the ***Next: Management*** button to continue.

   Info: Again, the settings on the Management tab should remain at its defaults unless you have a specific need to change them.

   a. Select all the options as ***Off***

8. Click on the ***Next: Guest*** config to continue

   Info: The Guest config tab is where you will add additional extensions, agents, scripts, and applications to your virtual machine.

9. Click the ***Next: Tags*** button to continue.

   Info: The Tags configuration tab is where you add names to help you manage, categorize, and track your resources usage for billing purposes.

10. Click the ***Next: Review + create*** button to continue.

   Info: The last tab is where you can review the parameters of your virtual machine and note the potential cost of creating and using it. Assuming the virtual machine is configured properly, and the costs are in line.

   It also shows ***Validation passed***. If not verify each step of configuration.

11. Click the ***Create*** button

   Info: The deployment process may take a few minutes. Check the status of resources deployment.

Part B: Connect to Windows Virtual Machine

From Windows 10

1. From the Azure Portal, go to the left menu, select Virtual Machines.

2. Select the virtual machine from the list.

3. On the right side of the page copy *Public IP Address*

4. In the local Desktop/ Laptop (Windows 10), right click on *Start* & *Run*

5. In the open, write *mstsc*

6. Enter in the *Public IP Address* of the Azure virtual machine, and then click **Connect**

7. Enter the *Username* and *Password* of the Azure virtual machine and click **OK**

8. Click **Yes** to confirm this connection if prompted with the security message

Part C: Install IIS on Windows 2019 Virtual Machine

1. Go to *Start menu*, open *Server manager* or right click on *Start* & *Run*. In the open, write **Servermanager.exe** (if it's not open)

2. Click on the *Add roles and features*

3. On the **Before you begin** window, simply click the *Next* button

4. On the *Installation type* window, select *Role-based or feature-based installation* and click *Next*

5. As we're installing to our local machine (Azure virtual machine), select *Select a server from the server pool* with the current machine selected and click *Next*

6. From the *Server roles* window, check the box next to *Web server (IIS)*. Doing this may open up a new window advising that additional features are required, simply click the *Add features* button to install these as well. Click *Next*

7. From the *Features* window click *Next*

8. From the **Web server role (IIS)** window click **Next**. As we are not installing any additional features at this stage, so simply click **Next**

9. Finally, on the **Confirm installation selections** window, review the items that are to be installed. No reboot should be required with a standard IIS installation in this stage. Click **Install**

10. Once the installation has succeeded, click the **Close** button

11. We can perform a simple test by opening up a web browser and browsing to the server that we have installed IIS on. You should see the default IIS page. In the Web browser web address, write **Private IP Address** of Azure virtual machine.

    Info: How to get **Private IP Address** of the Azure virtual machine.

    I. In the Azure virtual machine (Windows Server 2019), right click on **Start** & **Run**
    II. In the open, write **cmd**, it will open the command window
    III. Write **Ipconfig**, it will display Private **IPv4 Address**

Part D: Access Web Server (IIS) from Local Desktop/Laptop

12. Now, we can perform a test by opening up a web browser and browsing to the server over the Internet from our local Desktop/ Laptop (Windows 10). You should see the default IIS page. In the Web browser web address, write **Public IP Address** of Azure virtual machine.

    I. First you open a standard TCP port 80 on Virtual Machine from Internet
        a. Select the name of your virtual machine in the Microsoft Azure portal
        b. Select **Networking**
        c. Select **Add inbound port**
        d. Change the following values
            - Source port ranges: *****
            - Destination: **Any**
            - Destination port ranges: **80**
            - Protocol: **Any**
            - Priority: **Leave Default**
            - Name: **Port_80**

    II. How to get **Public IP Address** of the Azure virtual machine.
        a. Refer the **Steps 1 to 3** mentioned in **Part B**