

LAB EXPERIMENTS

CSA1517

**CLOUD COMPUTING AND BIG
DATA ANALYTICS FOR HADOOP
APPLICATIONS**

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EXP 19. Demonstrate Infrastructure as a Service (IaaS) by creating a Virtual Machine using a Public Cloud Service Provider (Azure), configure with required memory and CPU.

AIM:

To demonstrate infrastructure as a service (iaas) by creating a virtual machine using a public cloud service provider (azure), configure with required memory and cpu.

PROCEDURE:

STEP1: CREATE AN ACCOUNT IN MICROSOFT AZURE.

STEP2: GOTO RESOURCE GROUP AND CREATE A RESOURCE GROUP.

STEP3: GIVE NECESSARY THINGS FOR RESOURCE GROUP.

STEP4: CREATE A VIRTUAL NETWORK FOR TO CREATE A VIRTUAL MACHINE .

STEP5: NOW CREATE A VIRTUAL MACHINE WITH UR IPADDRESS AN USERNAME AND PASSWORD FOR YOUR VIRTUAL MACINE.

STEP6: AND YOUR VIRTUAL MACHINE IS DEPLOYED.

STEP7: NOW CONNECT THE VIRTUAL MACHINE AND DOWNLOAD THE RDP FILE TO OPEN YOUR

WINDOWS VIRTUAL MACHINE.

STEP8: NOW RESIZE THE VIRTUAL MACHINE SIZE.

STEP9: CREATED A NEW WINDOWS VIRTUAL MACHINE

IMPLEMENTATION:

The screenshot shows the Azure portal interface for creating a new resource group. The left sidebar displays 'Resource groups' with two existing groups: 'DefaultResourceGroup-CAU' and 'NetworkWatcherRG'. The main area is titled 'Create a resource group' with a green validation message 'Validation passed.' A navigation bar at the top right includes 'DEFAULT DIRECTORY' and other account options. The 'Review + create' tab is selected. The 'Basics' section contains the following configuration:

Subscription	Azure for Students
Resource group	Record
Region	East US

The 'Tags' section shows 'None'.

At the bottom, there are buttons for 'Create', 'Previous', 'Next >', and 'Download a template for automation'.

Create a resource group

Basics Tags Review + create

Resource group - A container that holds related resources for an Azure solution. The resource group can include all the resources for the solution, or only those resources that you want to manage as a group. You decide how you want to allocate resources to resource groups based on what makes the most sense for your organization. Learn more [\[?\]](#)

Project details

Subscription *	Azure for Students
Resource group *	Record

Resource details

Region *	(US) East US
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Page 1 of 1 Review + create < Previous Next : Tags >

Resource groups

Default Directory

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

Filter for any field... Subscription == all Location == all Add filter

No grouping List view

Showing 1 to 3 of 3 records.

Name	Subscription	Location
DefaultResourceGroup-CAU	Azure for Students	Australia Central
NetworkWatcherRG	Azure for Students	East US
Record	Azure for Students	East US

CreateVm-MicrosoftWindowsServer.WindowsServer-201-20210721104828 | Overview

Deployment

Search (Ctrl+F)

Delete Cancel Redeploy Refresh

We'd love your feedback! [\[?\]](#)

Your deployment is complete

Deployment name: CreateVm-MicrosoftWindowsServer.WindowsSe... Start time: 7/21/2021, 10:52:14 AM
Subscription: Azure for Students Correlation ID: a0f40b35-8270-49dc-bd7-42ee66e5c61

Deployment details (Download)

Next steps

- Setup auto-shutdown Recommended
- Monitor VM health, performance and network dependencies Recommended
- Run a script inside the virtual machine Recommended

Go to resource Create another VM

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The screenshot shows the Azure portal interface for a virtual machine named 'Record-virtual'. The left sidebar contains navigation links like Home, CreateVm, MicrosoftWindowsServer, WindowsServer-201-20210721104826, Record, Record-virtual, Overview, Activity log, Access control (IAM), Tags, Diagnose and solve problems, Settings, Networking, Connect, Windows Admin Center (preview), Disks, Size, Security, Advisor recommendations, and Extensions. The main content area has tabs for Overview, Connect, Restart, Stop, Capture, Delete, Refresh, and Open in mobile. The 'Essentials' tab is selected, displaying details such as Resource group (Record), Status (Running), Location (East US), Subscription (Azure for Students), Subscription ID (db4eeedb-1e3d-4be0-9c9c-65cc8d390405), and Tags (Click here to add tags). It also lists Operating system (Windows Server 2019 Datacenter), Size (Standard DS1 v2 (1 vcpu, 3.5 GB memory)), Public IP address (23.96.9.147), Virtual network/subnet (Record-vnet/default), and DNS name (Not configured). Below this, there are tabs for Properties, Monitoring, Capabilities (8), Recommendations, and Tutorials. Under the 'Virtual machine' tab, it shows Computer name (Record-virtual), Operating system (Windows Server 2019 Datacenter), Publisher (MicrosoftWindowsServer), Offer (WindowsServer), Plan (2019-Datascenter), VM generation (V1), and Agent status (Ready). Under the 'Networking' tab, it shows Public IP address (23.96.9.147), Public IP address (IPv6) (-), Private IP address (10.0.0.4), Private IP address (IPv6) (-), Virtual network/subnet (Record-vnet/default), and DNS name (Configure). A JSON View button is located in the top right corner.

RESULT:

Infrastructure as a service (IaaS) by creating a virtual machine using a public cloud service provider (Azure), configure with required memory and CPU has been demonstrated.