

# **LAB MANUAL**

**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. On the left, there's a sidebar titled 'Resource groups' with a 'Create' button. The main area is titled 'Create a resource group' with a green validation bar at the top stating 'Validation passed.' Below this, there are tabs for 'Basics', 'Tags', and 'Review + create'. Under 'Basics', the following details are shown:

- Subscription: Azure for Students
- Resource group: Record
- Region: East US

Under 'Tags', it says 'None'. At the bottom, there are buttons for 'Create', 'Previous', 'Next >', and 'Download a template for automation'. The page footer shows 'Page 1 of 1'.

**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

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+I) 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-bcf7-42eec66e5c61

**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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Home > CreateVm-MicrosoftWindowsServer.WindowsServer-201-20210721104826 >

**Record-virtual**

Virtual machine

Search (Ctrl+F)

Connect Start Restart Stop Capture Delete Refresh Open in mobile

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

Settings

Networking

Connect

Windows Admin Center (preview)

Disk

Size

Security

Advisor recommendations

Extensions

JSON View

Essentials

Resource group (change) : Record

Status : Running

Location : East US

Subscription (change) : Azure for Students

Subscription ID : db4eeedb-1e3d-4be0-9c9c-65cc8d390405

Tags (change) : Click here to add tags

Operating system : Windows (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

DNS name : Not configured

Properties Monitoring Capabilities (8) Recommendations Tutorials

**Virtual machine**

Computer name : Record-virtual

Operating system : Windows (Windows Server 2019 Datacenter)

Publisher : MicrosoftWindowsServer

Offer : WindowsServer

Plan : 2015-Datascenter

VM generation : V1

Agent status : Ready

**Networking**

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

DNS name : Configure

## 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.