Logo

Description automatically generated

**ALY 6110: Data Management and Big Data**

**Azure Administration Essential Training: LinkedIn Learning**

**CRN: 70633**

**NUID: 002938209**

**Email: jain.abhin@northeastern.edu**

**Submitted by: Abhinav Jain**

**Date: 10/27/2022**

**Submitted to: Prof. Valeriy Shevchenko**

**Summary:**

The fundamental knowledge of Azure administration teaches us how to set up a new network in the cloud and how to understand each step and how to benefit from it. how to connect to the organization at the beginning of the pricing tier.

David Elfassy served as our instructor in this session, and his explanations throughout the video got me eager to learn how to use this tool more effectively in subsequent projects. Therefore, managing, identifying, and computing the virtual network in a cloud management environment constitutes the core function of Azure. We learned about the fundamentals of Microsoft Azure in this training.

**Most relevant steps of the assignment:**

1.Understanding the implementation of Microsoft Azure.

2. Azure web apps

3. Implementation of Microsoft Azure for Virtual Machine

4. How directory of Microsoft Azure works

5. Microsoft Azure Networking

Now, here comes the explanation and understating of each part of this training of Microsoft Azure. By attaching the screenshots with the relevant explanation will make us understand the implementation of Microsoft Azure learning.

* **Getting Familiar with Microsoft Azure** the option for Azure and the levels of subscription that each required for each one will be thoroughly covered in this course of action. We looked at various management tools. Many management tools are available for creating and configuring Microsoft Azure. After discovering how to link business to azure, making organization data on the safer side, while developing the backup strategy to guarantee that you’re on-premises network is safeguarded in the cloud. Get an understanding of cost management, by altering the spending money on azure. However, it makes understand to identify and analyze the actual cost in the resource group. Verifying the utilization of the disk on a virtual machine is indeed to manage disk space. As a result, the audits VMs that do not employ managed disk policy and examines each of the results to detect the non-compliance resources or more specifically, the unmanaged disks. Through this tutorial, change and remove this existing policy as I want, but what will be truly fascinating is if I develop more rules that will check my azure resources and detect those that are problematic or do not adhere the condition.

>Basics of cloud computing

>Cloud services offering

>Azure security center

>Azure PowerShell

>Azure services

>Azure Policies

> Azure Deployment Templates

Graphical user interface, website

Description automatically generated

* + - **Microsoft Azure Web Apps**

In Microsoft azure the web application rather than a website due to the considerable advancement in technology. To get started, we can create a webpage in azure. I need to click Create a Resource before I can look for the resources of the web app variety. In this, we can use the variety of apps provided by Microsoft as well. These online applications currently have a certain setting, or a collection of specific parameters applied to them, along with a capability or you can. In Azure, we can establish the required resources and the URL of Microsoft Azure responding, so I understand those things are accessible. Also, understand the services plan in to initialize instant count. Recognizing the distinction between scaling up, or basically providing more servers and computers to operate the app, is crucial. The application service plan will cost more because of scaling both in and out of the web services.

>Implementing azure web apps

>Managing Azure web apps

>Configuration app services plan

Graphical user interface, text, application

Description automatically generated

* + - **Microsoft Azure Virtual Machines**

In this, we spoke about how Azure's portfolio includes an alternative to service-as-a-service (IaaS). As part of that offering, learning about the Azure virtual machine may help us create virtual machine instances that are hosted on the Azure platform. So, let's have a look at the tools and procedures we employ to create virtual machines. I want to start by pointing out that the gateway has two windows for controlling virtual machines: Virtual Machines and Virtual Machines Classic. Observe that RDP is a permitted port because, as we have already established in our introductory lessons, I can connect remotely to the virtual computer using the RDP. This notice informs you that all of these ports will be accessible via the Internet, necessitating the use of other security measures. In the lesson, they go into more detail about this as well. They also gave nice options to license this windows server using a portion of your current on-premises Virtual Machine.

**>**Creating, managing, and connecting Virtual Machine in Azure

Graphical user interface, application

Description automatically generated

* + - **Microsoft Azure Active Directory**

I can see an overview that Azure AD for office is connected to your Microsoft 365 tenant, which provides what it says. Additionally, I observed that this site has Azure a standard-based directory service, it has additional features such as multi-factor authentication, which allows users to log on using multiple forms of identification, as well as many other functionalities. There is a separate course on Azure AD in the Linkedin library, so I recommend that you go there and review all of the information because there is a lot to learn. Here, I have seen several licenses in this instance, including for power BI, Dynamic 365, and Microsoft Flow. There, some free licenses will be picked and in order to allocate licenses to the group, the option that informs us immediately tells us to activate an Azure paying subscription. This one of which is the creation of a dynamic group that truly distributes licenses wherever is created. Here, also we learned about some groups and also can access reviews by ensuring that they have validated my infrastructure.

>Exploring active directory

>Managing Azure Active directory

>Joining and Exploring Azure Active Directory

Graphical user interface, text, application

Description automatically generated

* **Microsoft Azure Networking**

In this lesson, I examined virtual machines and other aspects of data residing in Azure, one of the factors that are crucial for ensuring proper communication between those factors is virtual networking. Virtual networking is a feature that you may use in Azure, although it's not always necessary.

Never is communication handled through load balancers within the virtual network. In other words, communication occurs there more quickly. Your cloud platforms are not by default linked to the internet. We'll therefore look at how to link them to the internet because we might want to use the internet to connect those virtual networks to our internal network.

>Understanding the Network azure component

>Creating the virtual network and network gateway

Graphical user interface, application

Description automatically generated

* **Conclusions summary**

In this course, we learned the foundations of Microsoft Azure. The core function of Azure is to manage, identify, and compute the virtual network in a cloud management environment. Microsoft Azure creation and configuration can be done using a variety of management tools. After learning how to connect your company to Azure, you can protect your company's data while building a backup plan to ensure that your on-premises network is protected in the cloud. Before I can look for resources of the web app sort, I must select Create a Resource. We can also use the diversity of apps that Microsoft offers in this. In addition to a capability or you can, these online applications currently have a particular setting or set of particular parameters applied to them. Because I can connect remotely to the virtual machine using RDP, which we already established in our first classes, RDP is an authorized port. Additionally, I saw that this website uses the Azure directory service, which is based on industry standards. It also has many other characteristics, like multi-factor authentication, which enables users to log on using different forms of identity.

There is a separate course on Azure AD in the Linkedin library, so I advise you to visit there and look through everything because there is a lot to learn. In this case, I have noticed various licenses, including those for Microsoft Flow, Dynamic 365, and Power BI. There, a few free licenses will be chosen, and the choice that informs us right away instructs us to activate an Azure-paying membership in order to distribute licenses to the group.

* **Include a Certificate of Completion in your paperwork.**

Text

Description automatically generated

Graphical user interface, text

Description automatically generated