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1. Introduction

This lab report focuses on the practical implementation of installing roles and features in Windows Server 2022 and hosting a static website. Hosting websites on a server environment is a foundational skill in server administration which enables us to manage and deliver web services effectively.

We are using Windows Server 2022 (Desktop Experience) to demonstrate the process of configuring a server to host a static website. A pre-designed website template, *NEOGYM*, from free-css.com, is used for this purpose. Also, Oracle VirtualBox is employed to create and manage the virtual machine (VM) hosting the Windows Server. By using this setup, we can simulate a professional server hosting environment, gaining hands-on experience without the need for dedicated hardware.

This report documents each step of the process detailly, from setting up the virtual environment to successfully hosting and accessing the static website.

2. Objective

The main objective of this log report is to install roles and features in windows server 2022 and host a static website.

3. Required Tools and Concepts

For a practice we need to download a template from www.free-css.com and extract it. Copy all the extracted files to a folder in C drive by creating a new folder. Here, I am using the website 'NEOGYM'.

Others:

    a. Oracle VirtualBox: to create and manage virtual environments.
    b. Windows Server 2022 (Desktop Experience) installed in Oracle VirtualBox.

4. Steps of Replicate

We can follow the following process step by step to host the static website.

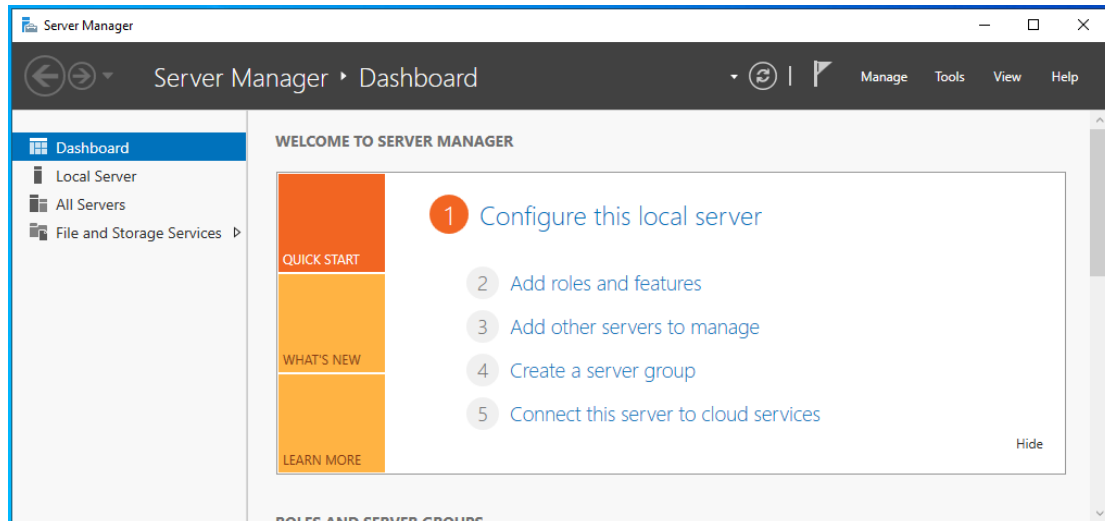Run Windows Server. Navigate to Dashboard of Server Manager.

Figure 1: Server manager

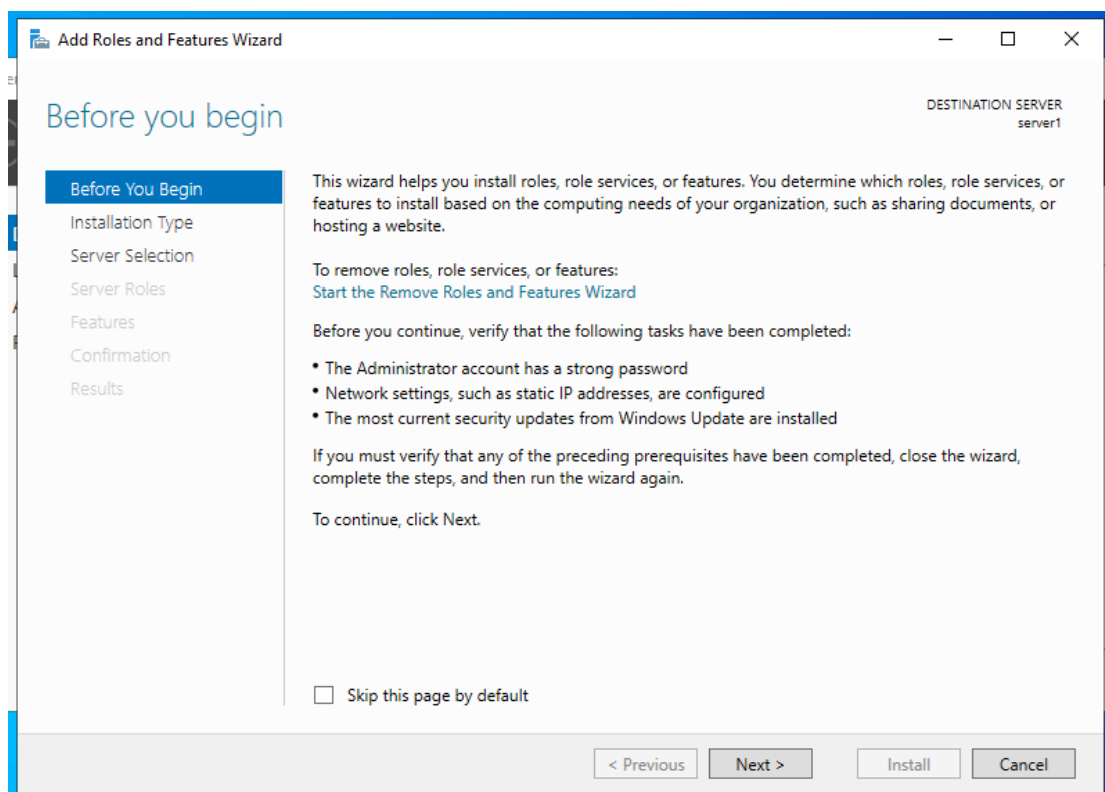Go to Add roles and features. Then the following window opens.

Figure 2: Add roles and features wizard

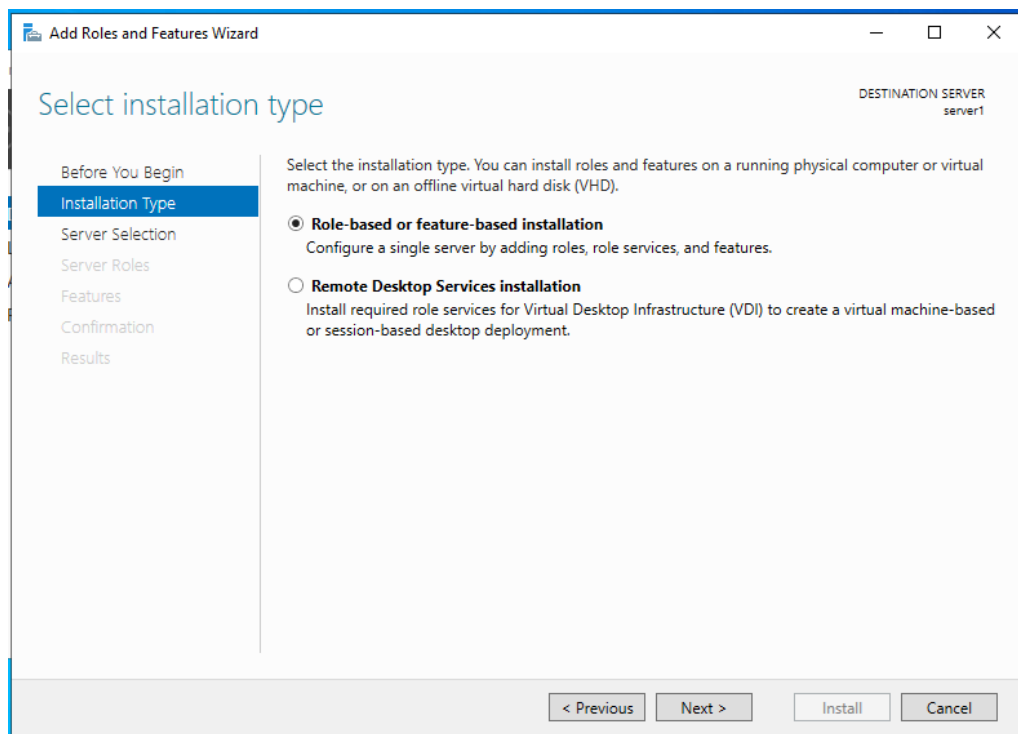Click on Next and tick Role-based or feature-based installation.

Figure 3: Installation type
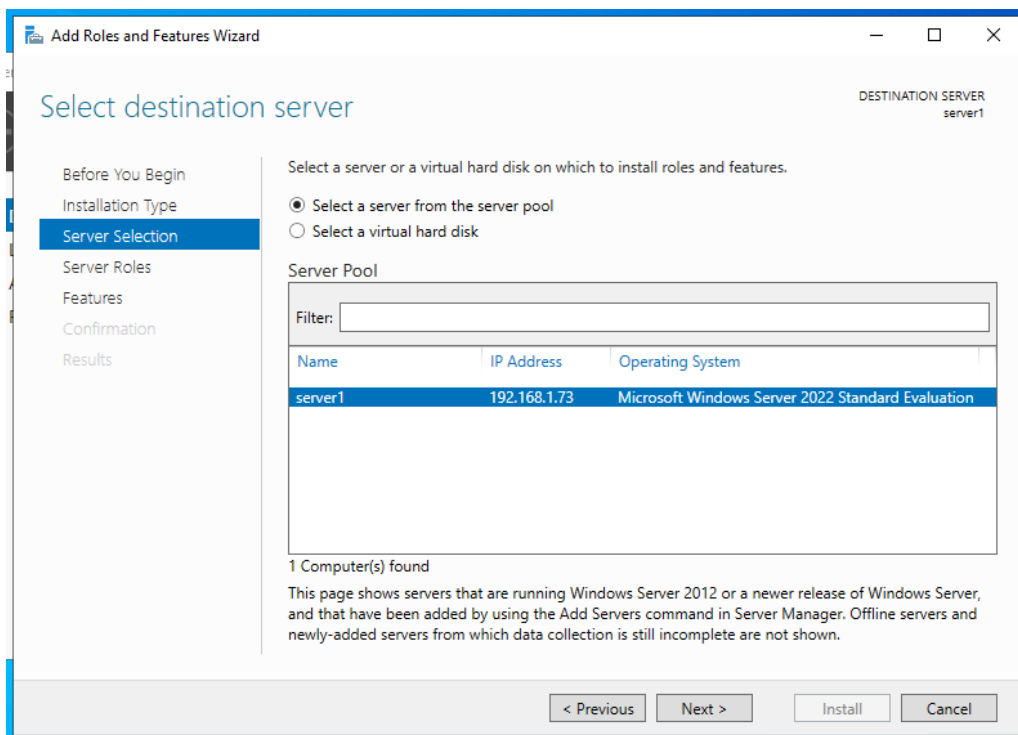
Click on next button without changing any setting here.

Figure 4: Server selection

Then tick on "Web Server (IIS)" feature. To host a website, we need to add a new role in server 'Web Server' which lets us to host web application over server.
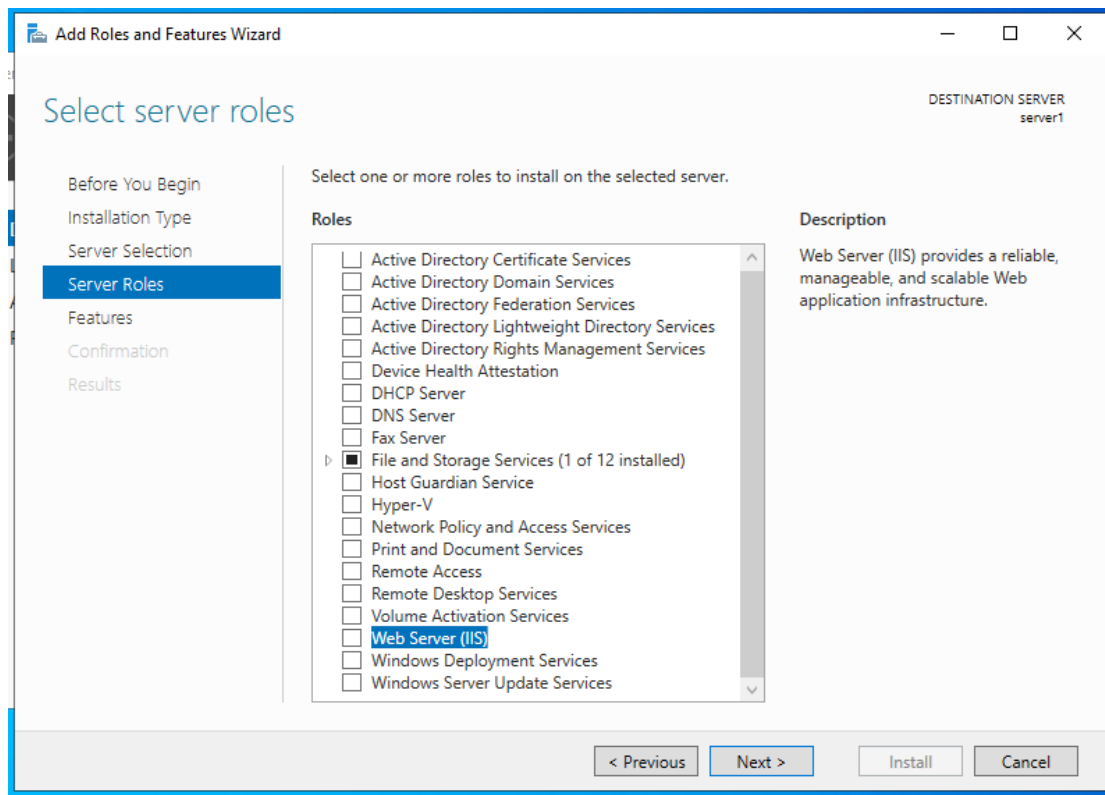

Figure 5: Adding web server feature
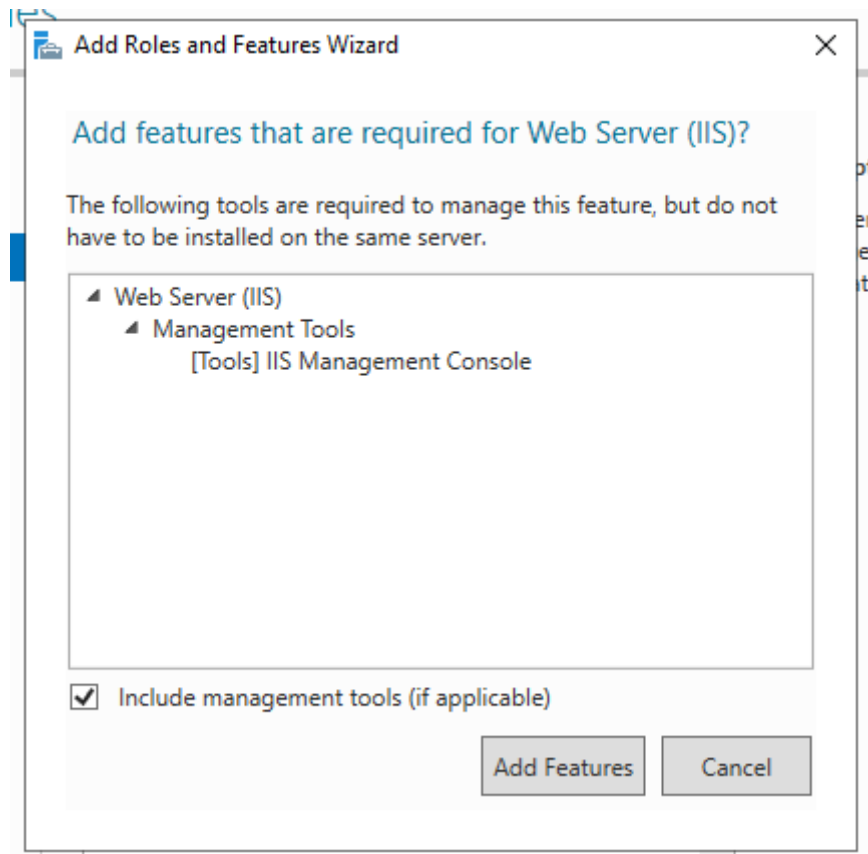
Now click on 'Add features' button.

Figure 6: Additional tools and features

Here, the Web server role has been added. Now click on next.
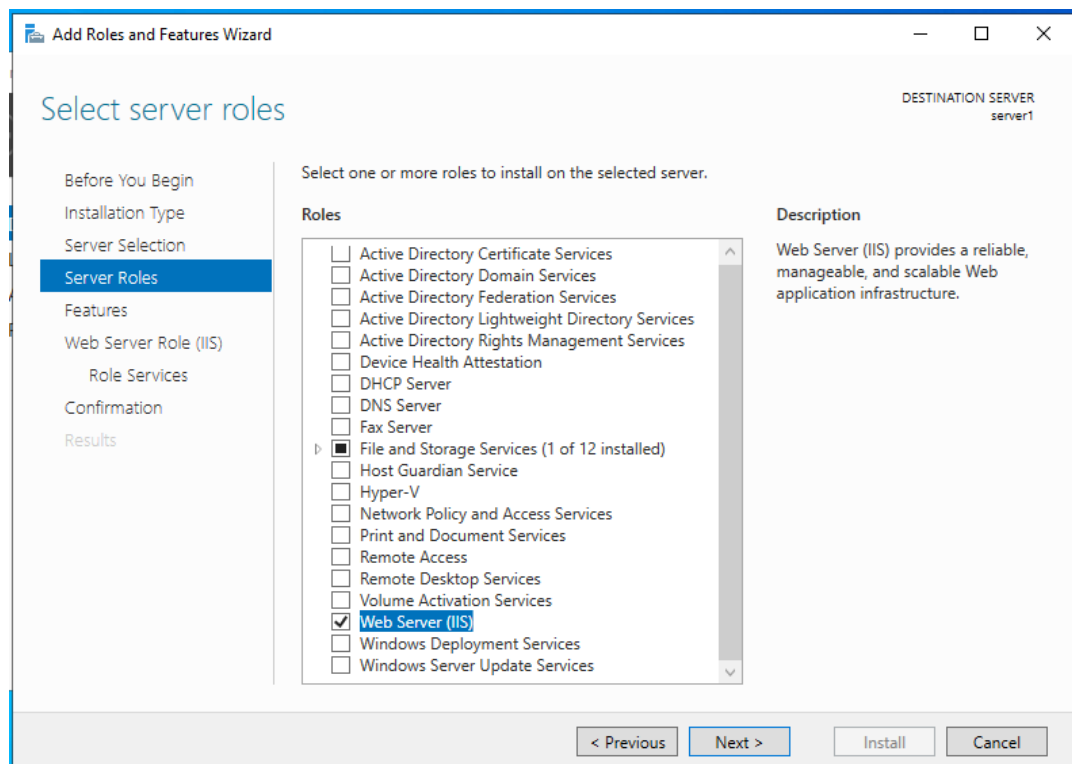
Figure 7: Adding web server roles
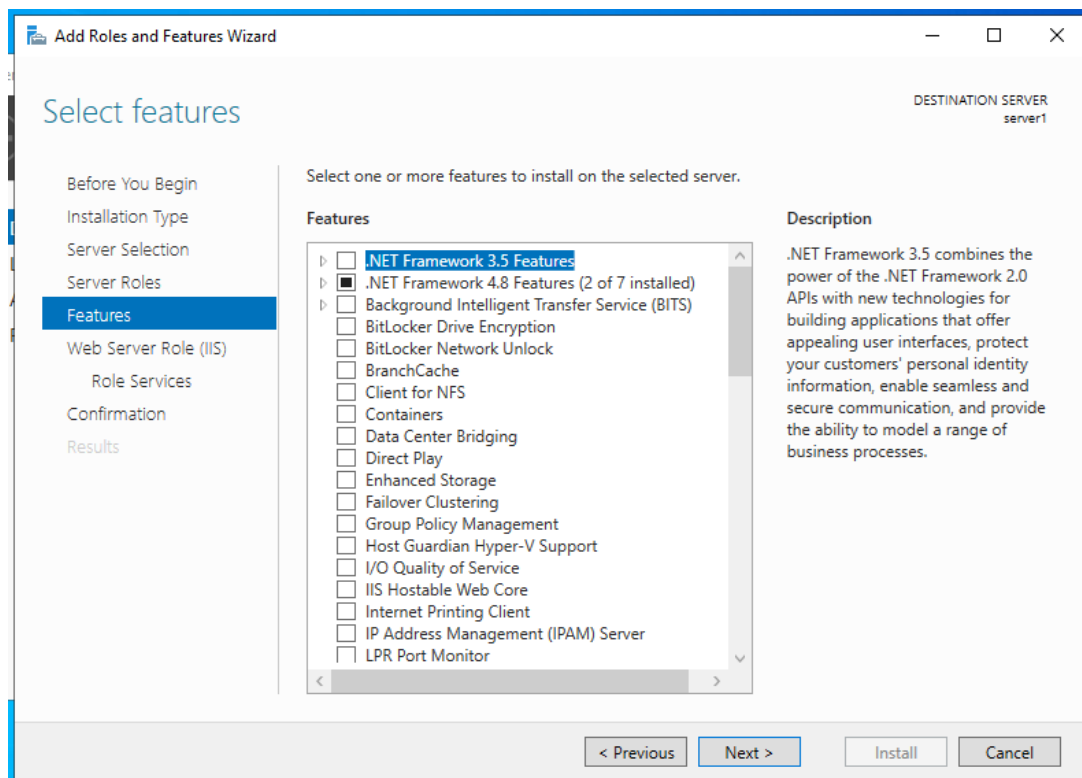
Again, click on Next button without changing any values.

Figure 8: Additional features to be added on server

Click on the Next button.
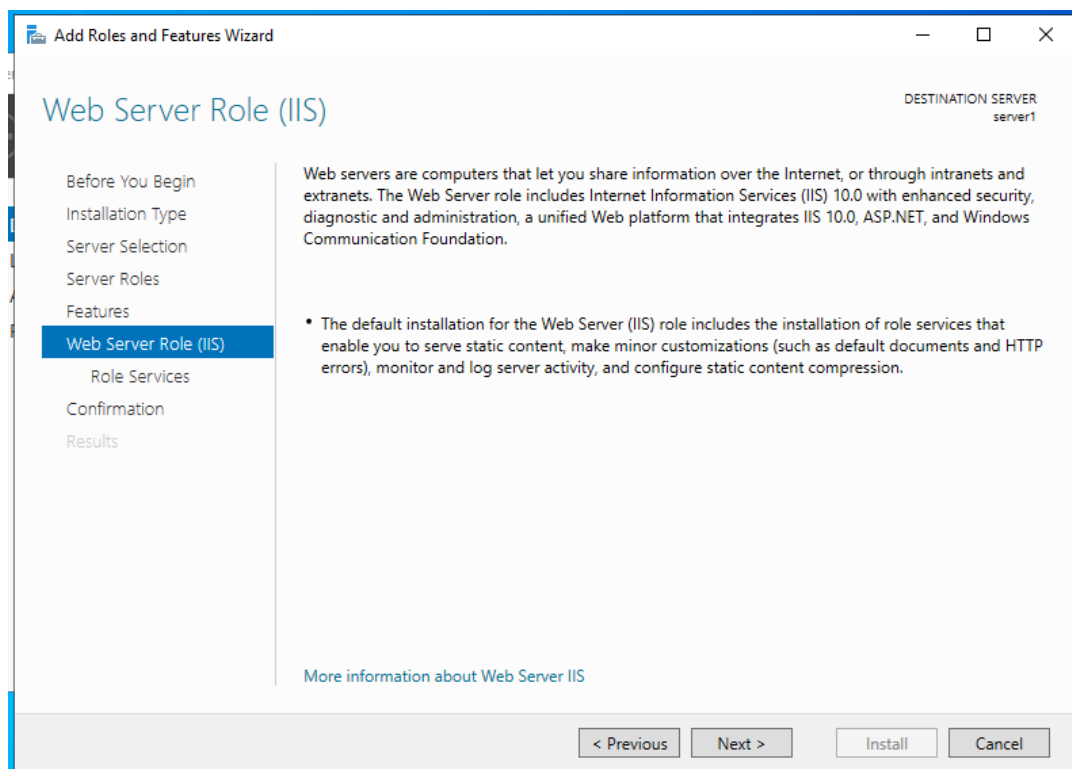
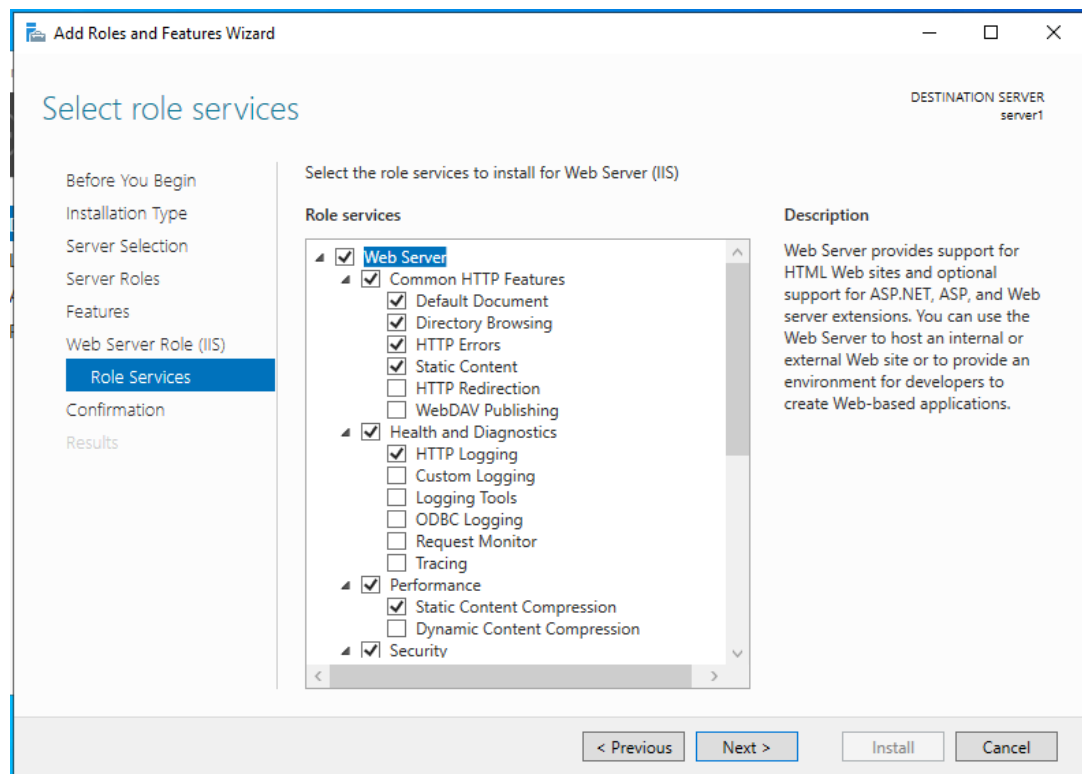*Figure 9: Web server roles*

Click on Next button.

Figure 10: Role services added

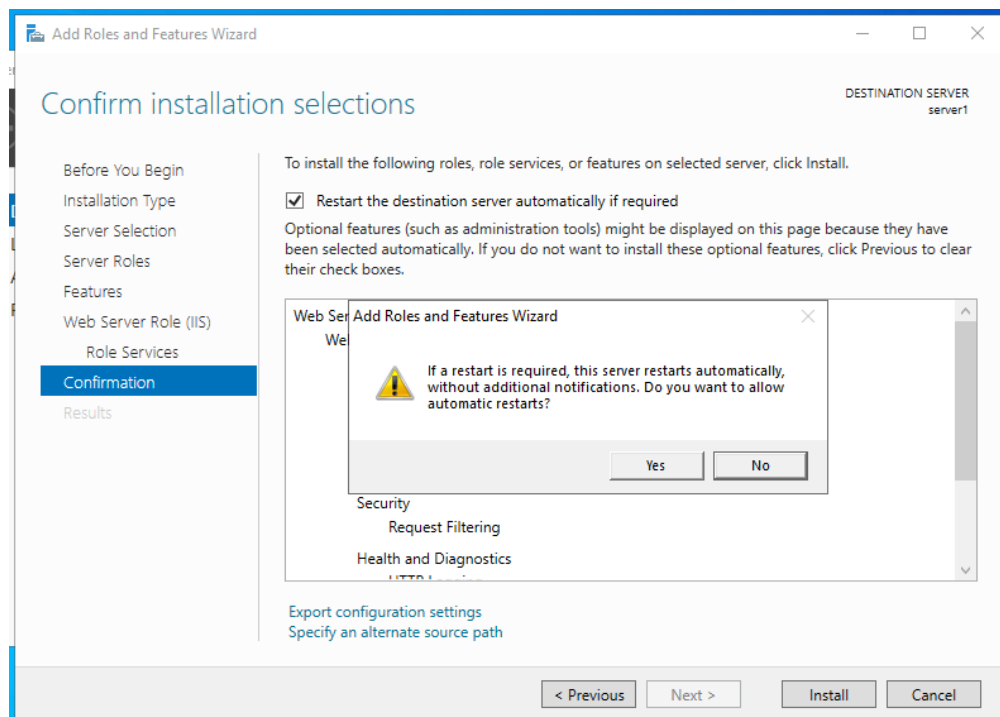Tick the box "Restart the destination server automatically if required" and press Yes button.

Figure 11: Request for a restart

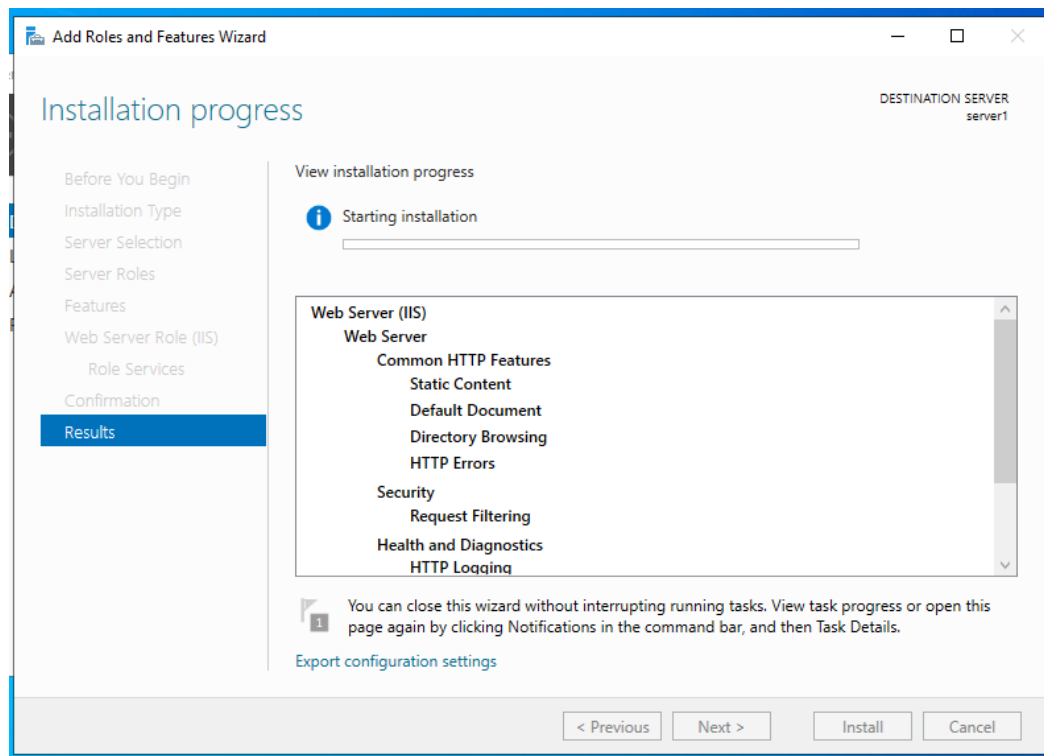Now it will take some time to install some features according to our previous preferences.

Figure 12: Installing added tools and feaures

Here we have successfully installed Web Server role in windows Server.

Now click on Tools menu in Server Manager Dashboard and navigate "Internet Information Services(IIS)" and click on it.
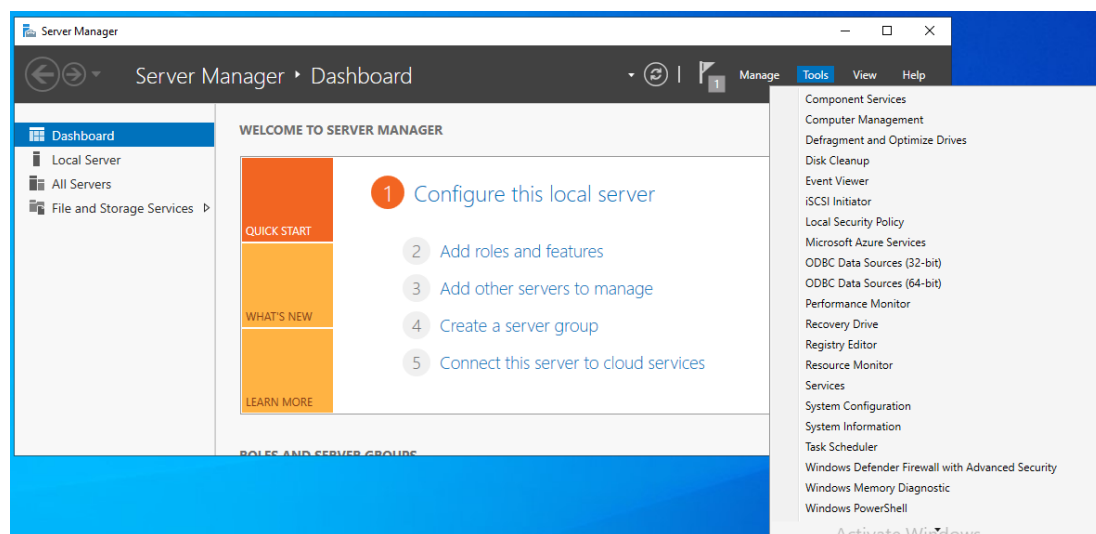
Figure 13: Navigating IIS in Server manager

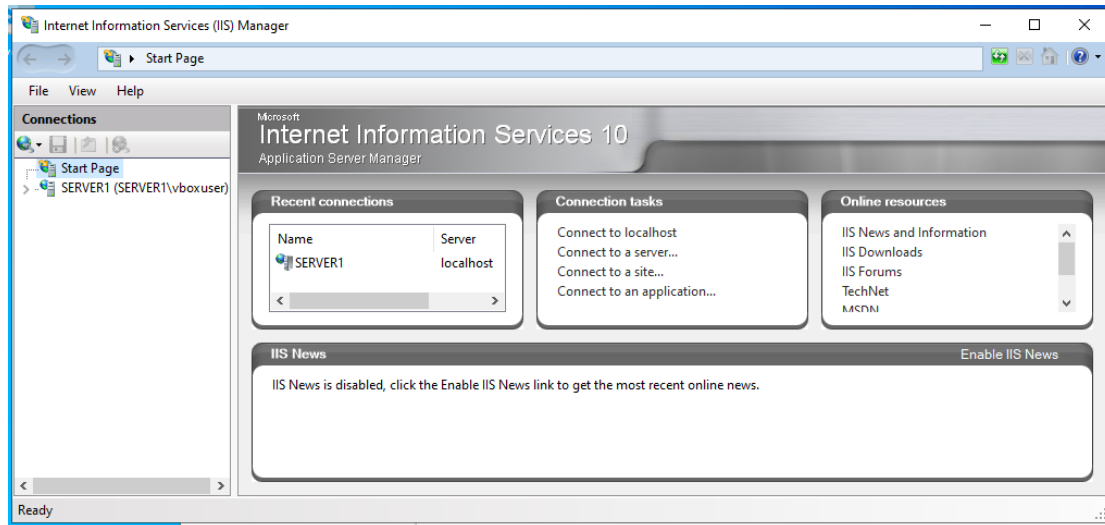A new window will pop up where we can see our server name on the left pane of the manager.

Figure 14: Internet Information Service (IIS) Manager

By clicking on drop down button on 'MYSERVER', we can see Sites option. Here we can see the default website.
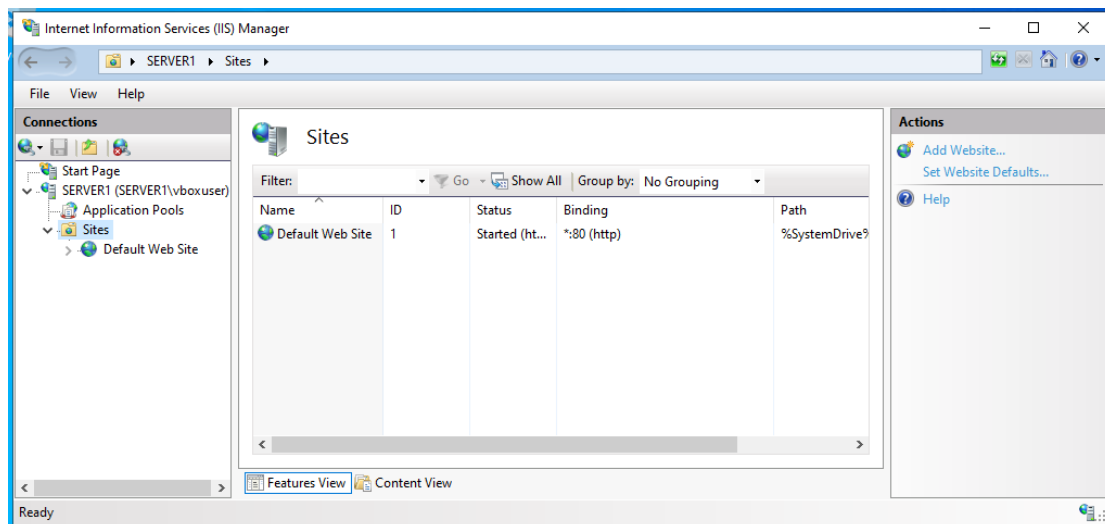
Figure 15: Existing websites

Now, we need to add a new website of our own. For that, right click on Sites and click on 'Add Website'.
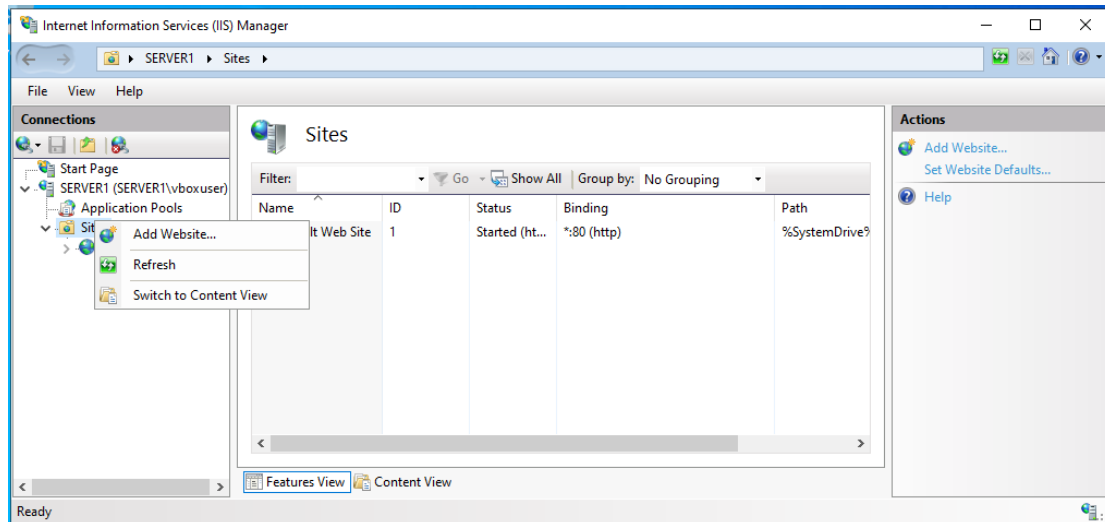

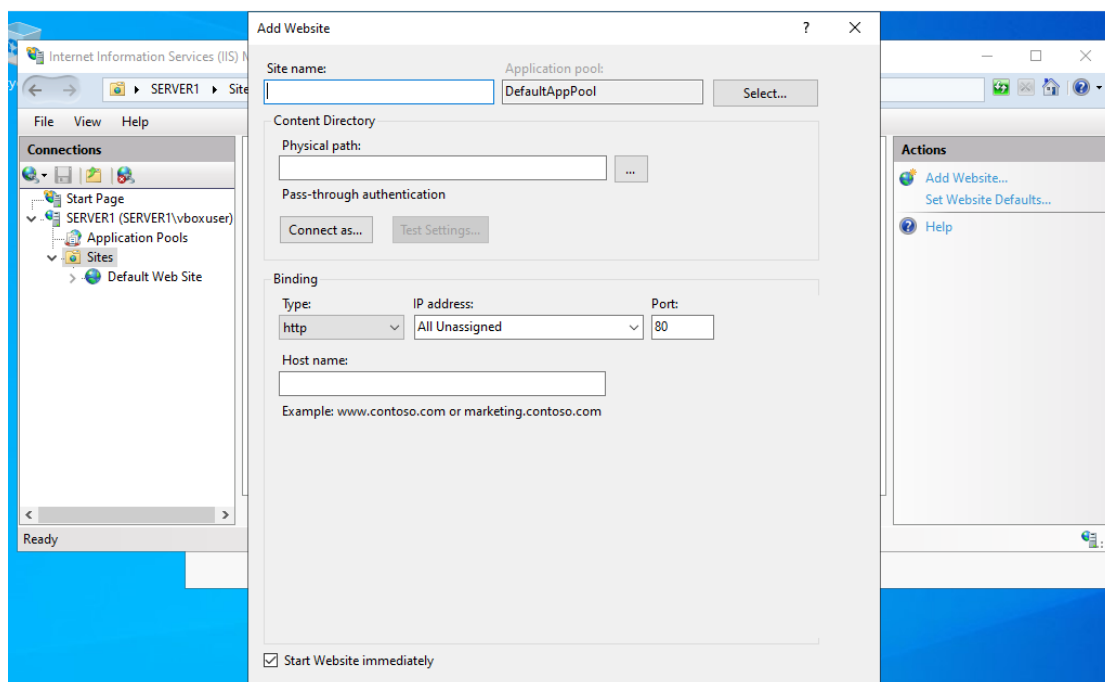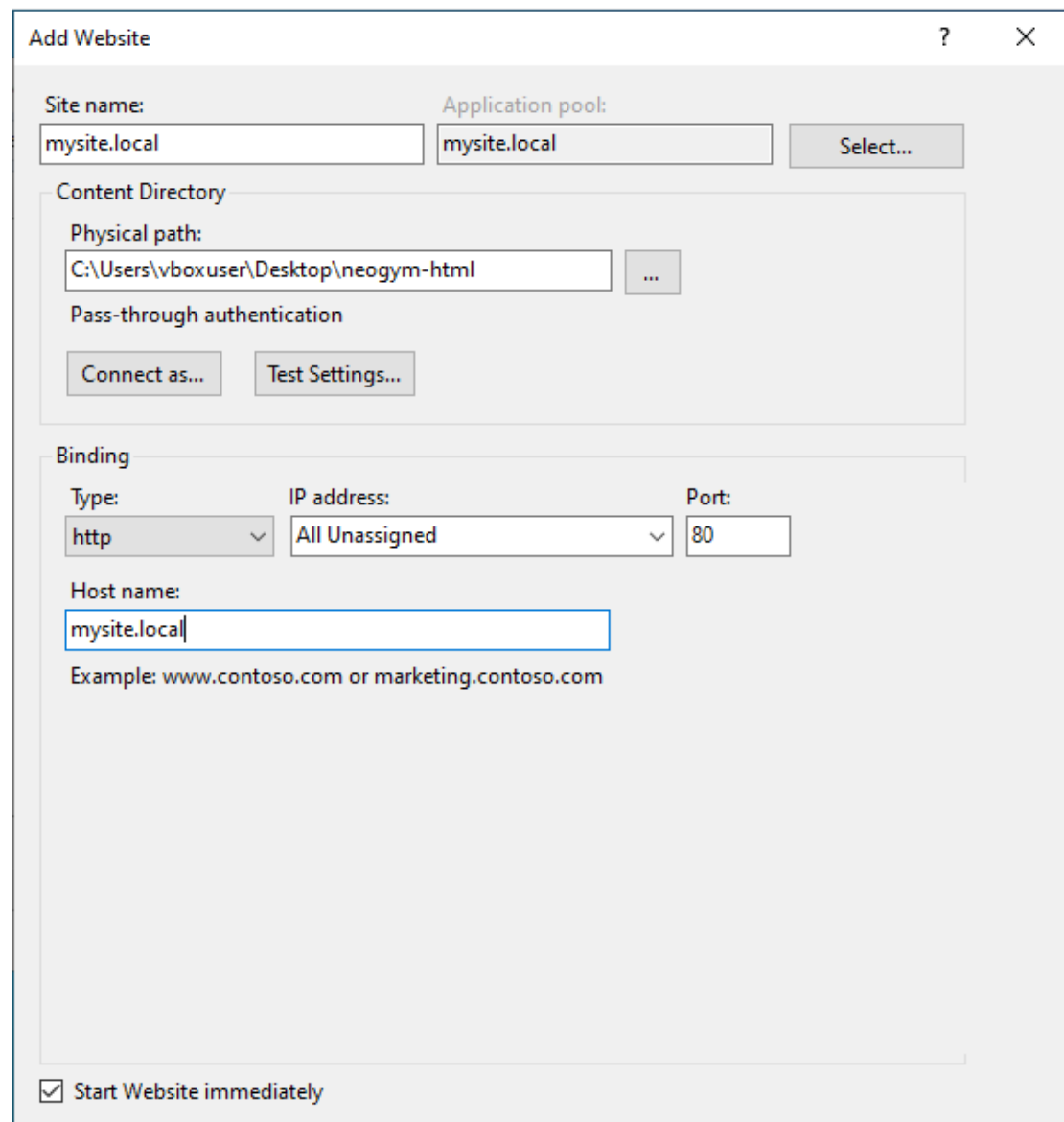*Figure 16: Adding new website*

Then, a new window will open where we need to enter our site credentials.

Figure 17: Pop-up to add website credentials

Here, I am providing the site name and hostname as 'mysite.local'. Also provide the physical path of the folder where the files of the website is located as follows. Then, press enter.
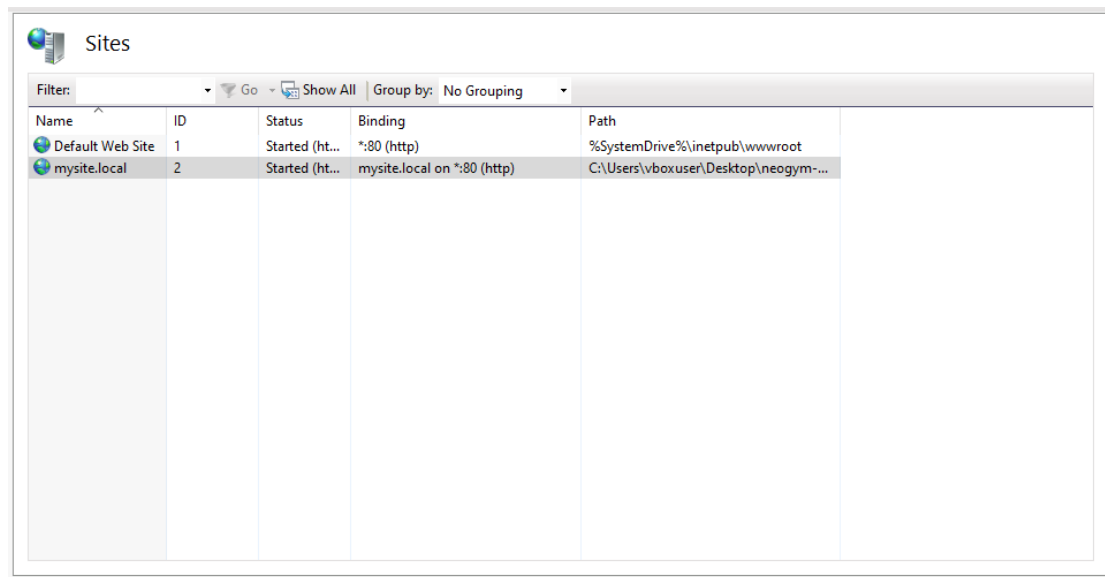

Figure 18: Website credentials entered

Now we can see, our site has been listed.

Figure 19: List of websites

We can browse our site by typing "mysite.local" on address bar of web browser in windows server. We can obtain the output as shown in the picture below.
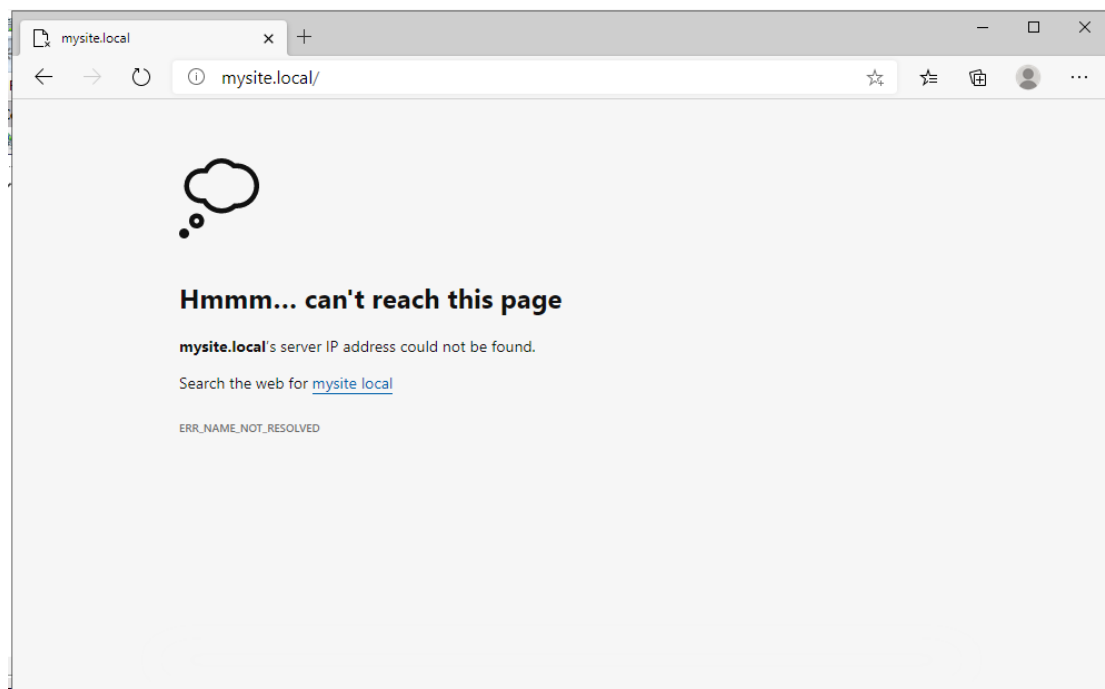

Figure 20: Error while searching website in browser

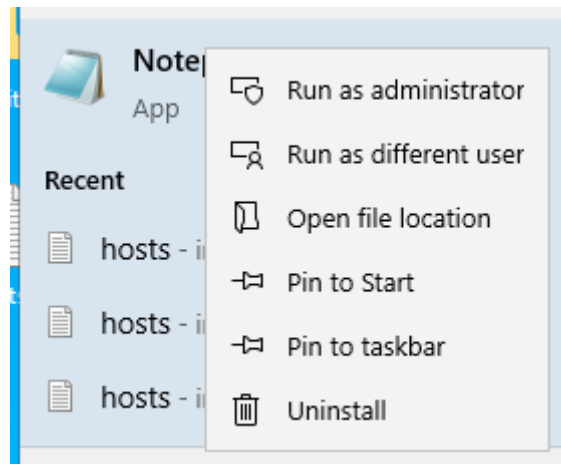It's because we need to register our site in host file also. For that run 'Notepad' as an administrator.

Figure 21: Running Notepad as administrator

Now, mavigate the hosts file which is located at the following path: C/Windows/System32/drivers/etc/hosts.
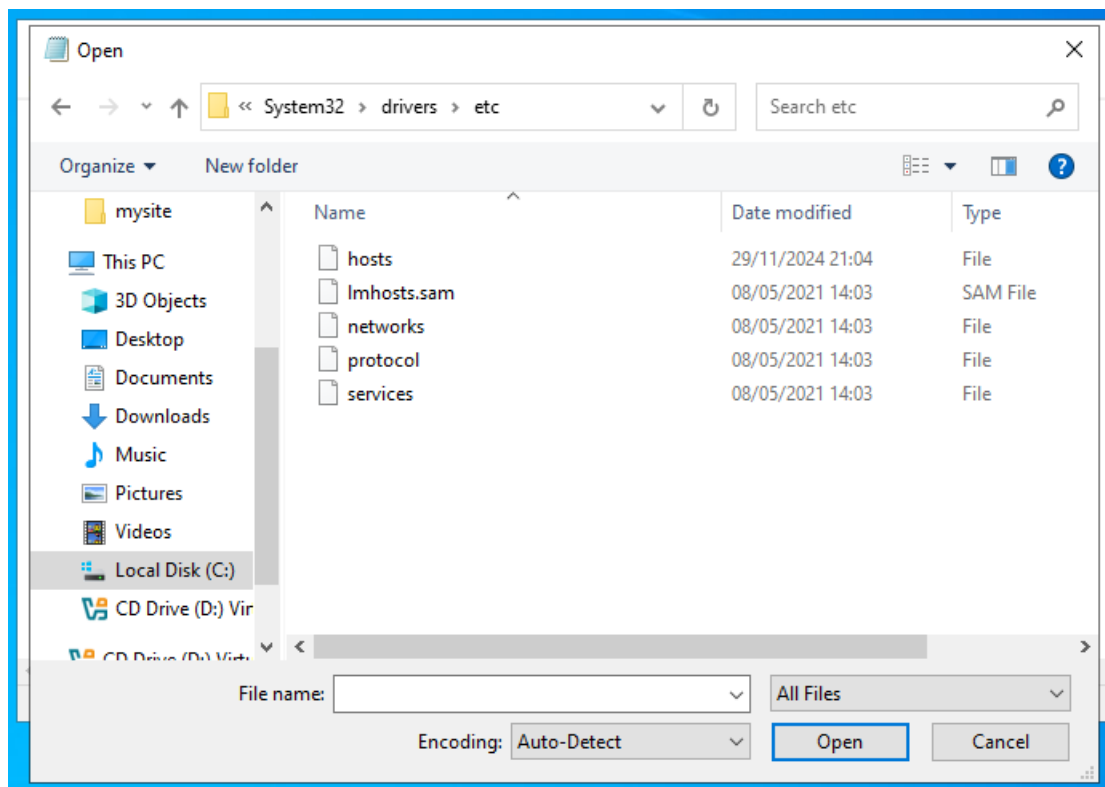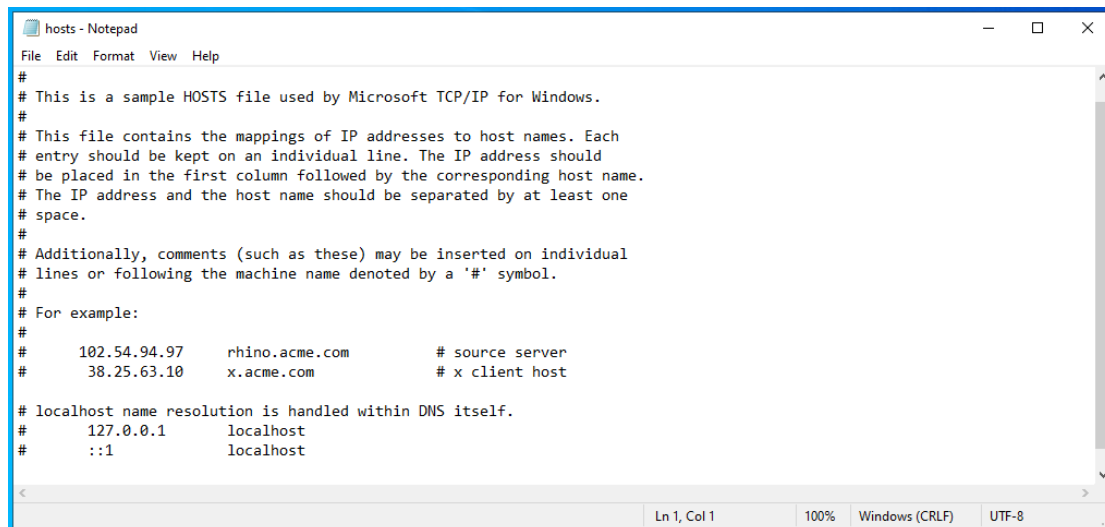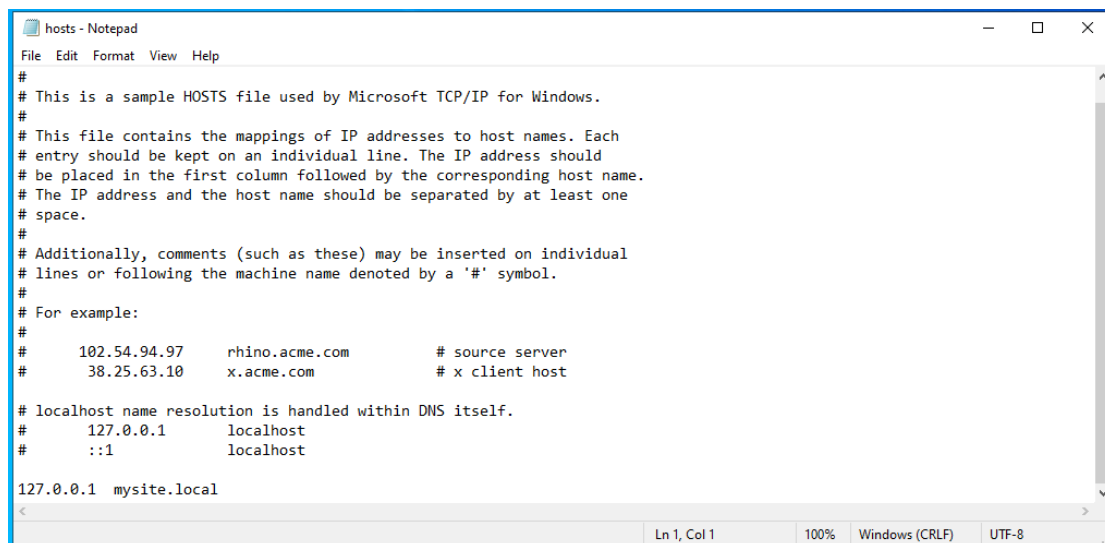

Figure 22: Navigating 'hosts' file

Open the hosts file.

Figure 23: 'Hosts' file opened in Notepad

Then, add '127.0.0.1 mysite.local' at the end of the file and save it.

Figure 24: Mapping IP address to host name

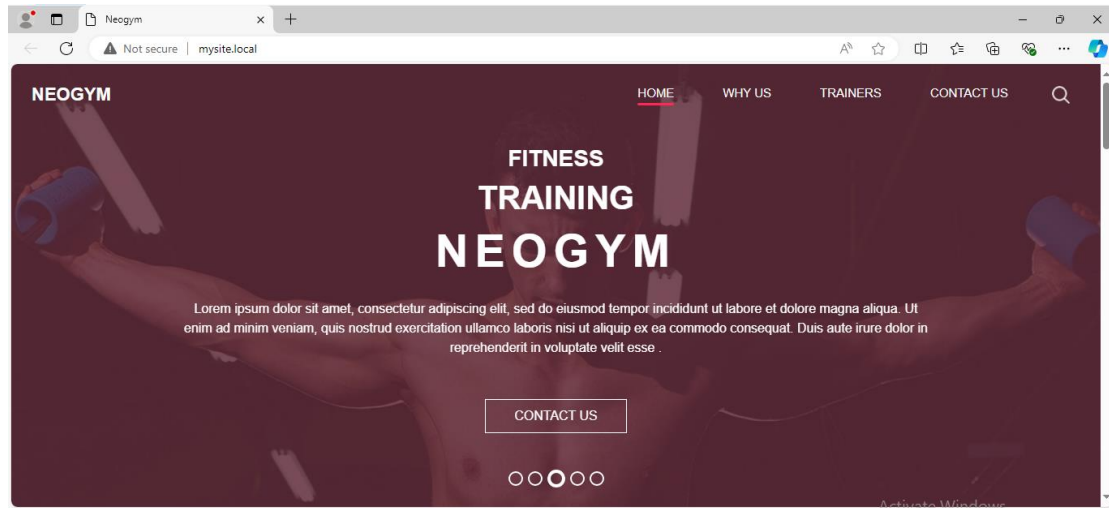Again, reload the webpage. Then, we can see our webpage loaded.

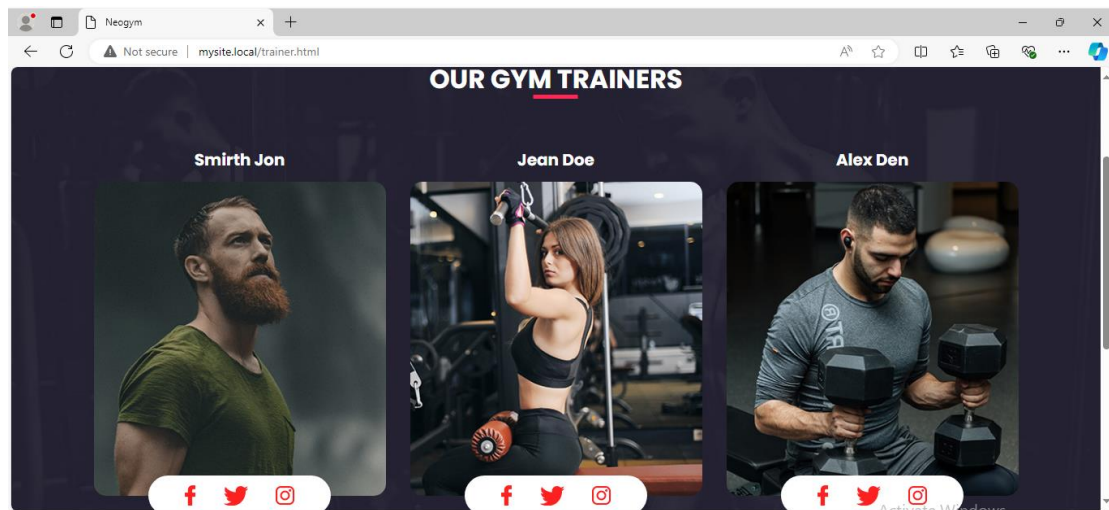*Figure 25: Output after reloading webpage in browser*

Figure 26: 'Trainers' page of loaded website

5. Conclusion

This lab exercise successfully demonstrates the process of installing roles and features in Windows Server 2022 and hosting a static website using the Internet Information Services (IIS) feature. Through a step-by-step approach, we were able set up the necessary server roles and deploy a static website by configuring in a virtual environment. It includes understanding the role of IIS in hosting web applications and websites, configuring and managing server roles and features in Windows Server and configuring the IIS web server and resolving potential errors such as improper hostname mapping.