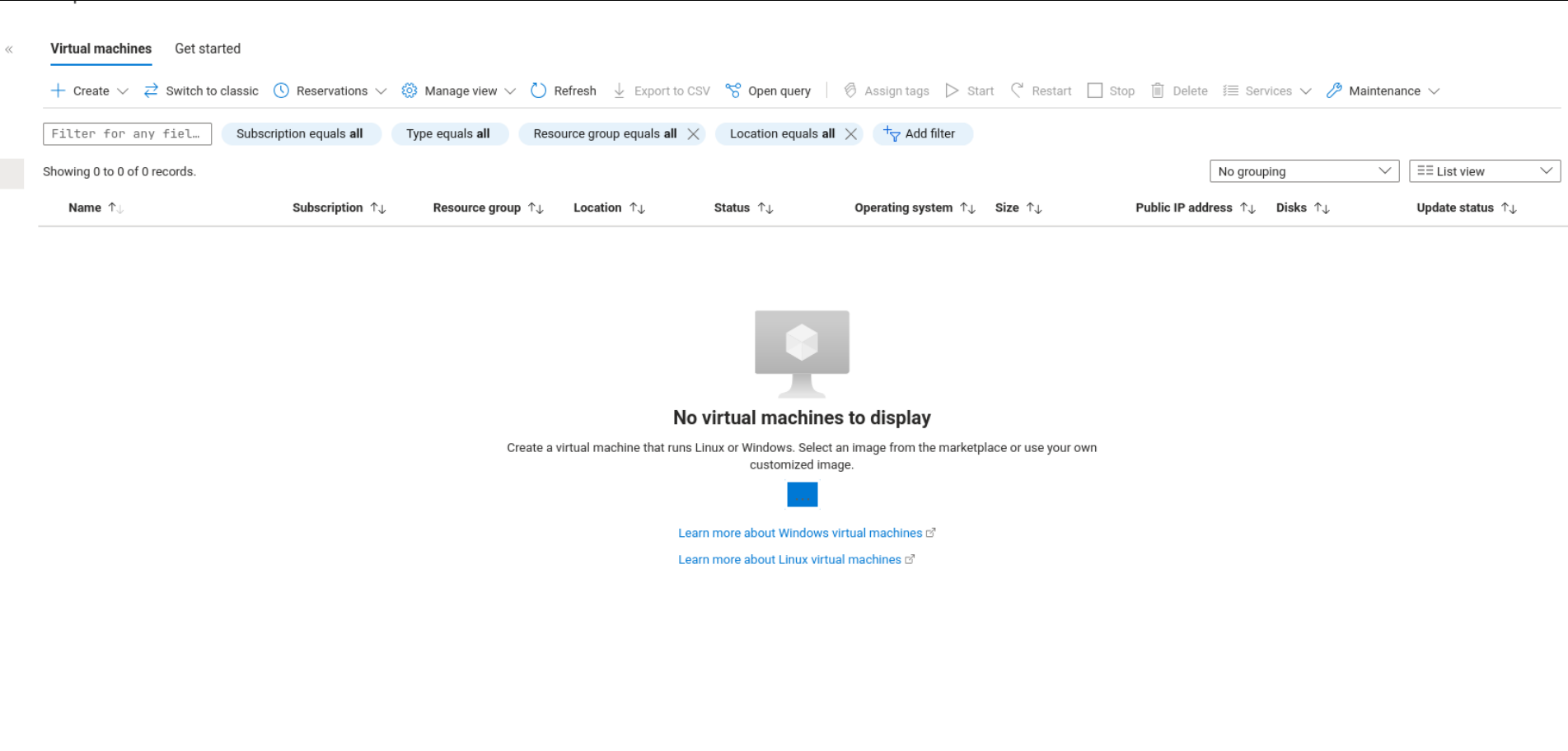
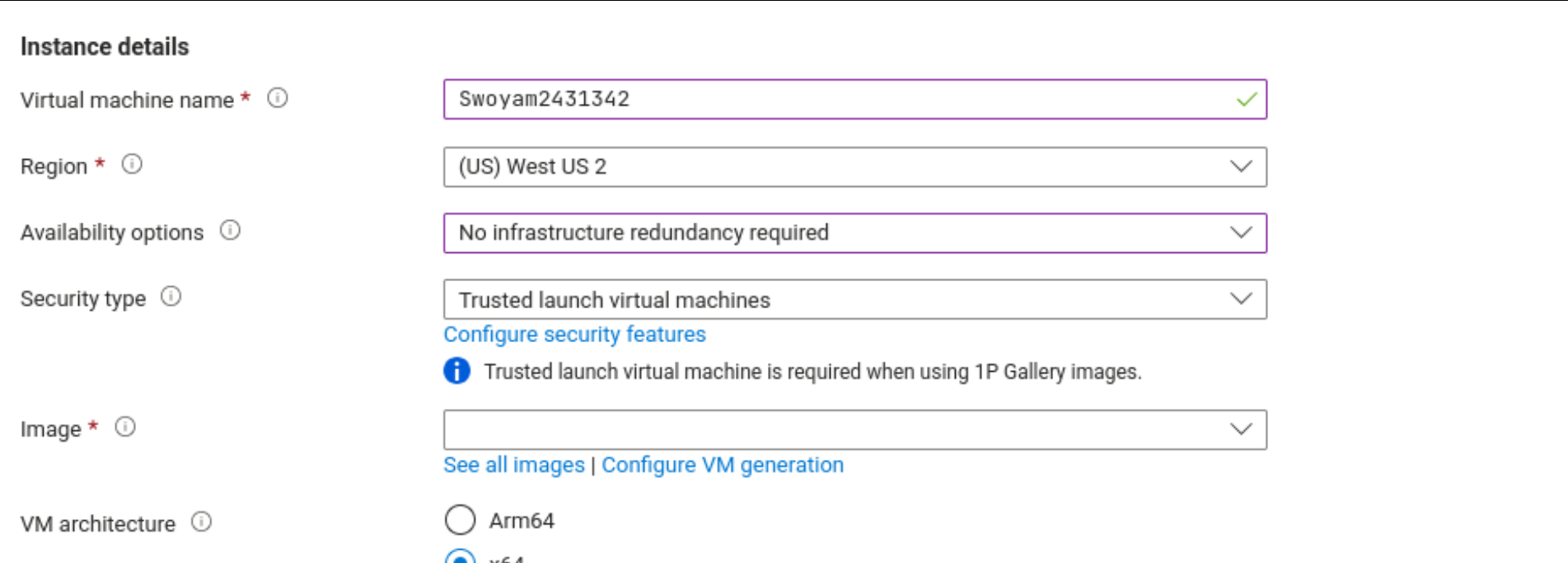


# About to create a virtual machine



We've just navigated to the page to create a new virtual machine.

# Configuring a new virtual machine




Here, we selected a name, a region, a security type, for our virtual machine.

[Configure security features](#)

**i** Trusted launch virtual machine is required when using 1P Gallery images.

Image \* **i**

 Windows Server 2019 Datacenter - x64 Gen2 

[See all images](#) | [Configure VM generation](#)

VM architecture **i**

☐ Arm64


☒ x64

**i** Arm64 is not supported with the selected image.

Run with Azure Spot discount **i**

☐


Size \* **i**

Standard\_B1ms - 1 vcpu, 2 GiB memory (\$17.96/month) 

[See all sizes](#)

Enable Hibernation **i**

☐

**i** Hibernate is not supported by the size that you have selected. Choose a size that is compatible with Hibernation to enable this feature. [Learn more](#) 

### Administrator account

Username \* **i**

swoyam 

Password \*

●●●●●●●●●● 

Confirm password \*

●●●●●●●●●● 

### Inbound port rules


Select which virtual machine network ports are accessible from the public internet. You can specify more limited or granular network access on the Networking tab.

Public inbound ports \* **i**

☐ None

☒ Allow selected ports

Select inbound ports \*

HTTP (80), HTTPS (443), SSH (22), RDP (3389) 



**This will allow all IP addresses to access your virtual machine.** This is only recommended for testing. Use the Advanced controls in the Networking tab to create rules to limit inbound traffic to known IP addresses.

Furthermore, we chose Windows Datacenter as our image with an x64 architecture, and we configured it with 1 virtual cpu and 2 Gibibytes ~ translating to 2.15 Gigabytes of memory. Along with the standard inbound ports-- HTTP(80), HTTPS(443) and SSH(22)-- we also manually opened port 3389 for RDP access.

Create a virtual machine that runs Linux or Windows. Select an image from Azure marketplace or use your own customized image. Complete the Basics tab then Review + create to provision a virtual machine with default parameters or review each tab for full customization. [Learn more](#)

**i** This subscription may not be eligible to deploy VMs of certain sizes in certain regions.

Project details

Select the subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

Subscription \* **i**

Azure for Students

Resource group \* **i**

(New) swoyam2431342\_group

Create new

Instance details

Virtual machine name \* **i**

swoyam2431342

Region \* **i**

(US) East US

Availability options **i**

No infrastructure redundancy required


Security type **i**

Trusted launch virtual machines

Configure security features

**i** Trusted launch virtual machine is required when using 1P Gallery images.

Image \* **i**

 Windows Server 2019 Datacenter - x64 Gen2

See all images | Configure VM generation

VM architecture **i**

☐ Arm64

☒ x64

**i** Arm64 is not supported with the selected image.

Run with Azure Spot discount **i**

☐

Size \* **i**

Standard\_B1ms - 1 vcpu, 2 GiB memory (\$17.96/month)

See all sizes

[Configure security features](#)




 Trusted launch virtual machine is required when using 1P Gallery images.

Image \* 


 Windows Server 2019 Datacenter - x64 Gen2 

[See all images](#) | [Configure VM generation](#)

VM architecture 

☐ Arm64


☒ x64

 Arm64 is not supported with the selected image.

Run with Azure Spot discount 

☐



Size \* 

Standard\_B1ms - 1 vcpu, 2 GiB memory (\$17.96/month) 

[See all sizes](#)

Enable Hibernation 

☐

 Hibernation is not supported by the size that you have selected. Choose a size that is compatible with Hibernation to enable this feature. [Learn more](#) 

### Administrator account

Username \* 

swoyam 

Password \*

●●●●●●●●●● 

Confirm password \*

●●●●●●●●●● 

### Inbound port rules


Select which virtual machine network ports are accessible from the public internet. You can specify more limited or granular network access on the Networking tab.

Public inbound ports \* 

☐ None

☒ Allow selected ports

Select inbound ports \*

HTTP (80), HTTPS (443), SSH (22), RDP (3389) 



**This will allow all IP addresses to access your virtual machine.** This is only recommended for testing. Use the Advanced controls in the Networking tab to create rules to limit inbound traffic to known IP addresses.

The above 2 images show the overall configuration of our new virtual machine. After rechecking our configuration we went on to review and create the virtual machine.

# Create a virtual machine



✓ Validation passed



Help me create a low cost VM

Help me create a VM optimized for high availability

Help me choose the right VM size for my workload

Basics

Disks

Networking

Management

Monitoring

Advanced

Tags

**Review + create**

## Price

1 X Standard B1ms

by Microsoft

[Terms of use](#) | [Privacy policy](#)

Subscription credits apply ⓘ

**0.0246 USD/hr**

[Pricing for other VM sizes](#)

## TERMS

By clicking "Create", I (a) agree to the legal terms and privacy statement(s) associated with the Marketplace offering(s) listed above; (b) authorize Microsoft to bill my current payment method for the fees associated with the offering(s), with the same billing frequency as my Azure subscription; and (c) agree that Microsoft may share my contact, usage and transactional information with the provider(s) of the offering(s) for support, billing and other transactional activities. Microsoft does not provide rights for third-party offerings. See the [Azure Marketplace Terms](#) for additional details.



**You have set SSH, RDP port(s) open to the internet.** This is only recommended for testing. If you want to change this setting, go back to Basics tab.

This is azure prompting us that the validation for our new virtual machine has passed, and now we may move on to deploy the virtual machine.

CreateVm-MicrosoftWindowsServer.WindowsServer-201-20250328...

Deployment

Delete

Cancel

Redeploy

Download

Refresh

Overview

Inputs

Outputs

Template

Deployment is in progress

Deployment name: Create...

Subscription: [Azure for St...](#)

Resource group: [swoyam...](#)

Start time: 3/28...

Correlation ID: e6f...

Deployment details

| Resource                           | Type                 |
|------------------------------------|----------------------|
| swoyam2431342                      | Microsoft.Compute/v  |
| <a href="#">swoyam2431342127</a>   | Microsoft.Network/n  |
| <a href="#">swoyam2431342-ip</a>   | Microsoft.Network/p  |
| <a href="#">swoyam2431342-vnet</a> | Microsoft.Network/vi |
| <a href="#">swoyam2431342-nsg</a>  | Microsoft.Network/n  |

Give feedback

[Tell us about your experience with deployment](#)

Microsoft Defender for Cloud

Secure your apps and infrastructure

[Go to Microsoft Defender for Cloud >](#)

Free Microsoft tutorials

[Start learning today >](#)

Work with an expert

Azure experts are service provider partners who can help manage your assets on Azure and be your first line of support.

[Find an Azure expert >](#)

This is us in the process of deploying our virtual machine.

CreateVm-MicrosoftWindowsServer.WindowsServer-201-20250328...

Deployment

Search

DeleteCancelRedeployDownloadRefresh

Overview

Inputs

Outputs

Template

✓ Your deployment is complete

Deployment name: Create...Start time: 3/28...

Subscription: Azure for St...Correlation ID: e6f

Resource group: swoyam...

Deployment details

Next steps

Setup auto-shutdownRecommended

Monitor VM health, performance and network dependenciesRecommended

Run a script inside the virtual machineRecommended

Go to resource

Create another VM

Give feedback

Tell us about your experience with deployment

Cost Management

Get notified to stay within your budget and prevent unexpected charges on your bill.

Set up cost alerts >

Microsoft Defender for Cloud

Secure your apps and infrastructure

Go to Microsoft Defender for Cloud >

Free Microsoft tutorials

Start learning today >

Work with an expert

Azure experts are service provider partners who can help manage your assets on Azure and be your first line of support.

Find an Azure expert >

This is azure prompting us that our deployment has been done successfully.

**Virtual machine**

Computer name  
swoyam2431342

Operating system  
Windows (Windows Server 2019  
Datacenter)

VM generation  
V2

VM architecture  
x64

Agent status  
Ready

Agent version  
2.7.41491.1149

Hibernation  
Disabled

Host group  
-

Host  
-

Proximity placement group  
-

Colocation status  
N/A

Capacity reservation group  
-

Disk controller type  
SCSI





## Networking

Public IP address

52.255.206.99 ( Network interface [swoyam2431342127](#) )

Public IP address (IPv6)-

Private IP address 10.0.0.4

Private IP address -  
(IPv6)

Virtual network/subnet [swoyam2431342-vnet/default](#)

DNS name [Configure](#)



## Size

Size Standard B1ms

vCPUs 1

RAM 2 GiB



## Source image details

Source image publisher MicrosoftWindowsServer

Source image offer WindowsServer

Source image plan 2019-datacenter-gensecond



## Disk

OS disk

swoyam2431342\_OsDisk\_1\_308e7d1dd13045b3bfe49bab6369ea1

Encryption at host Disabled

Azure disk encryption Not enabled

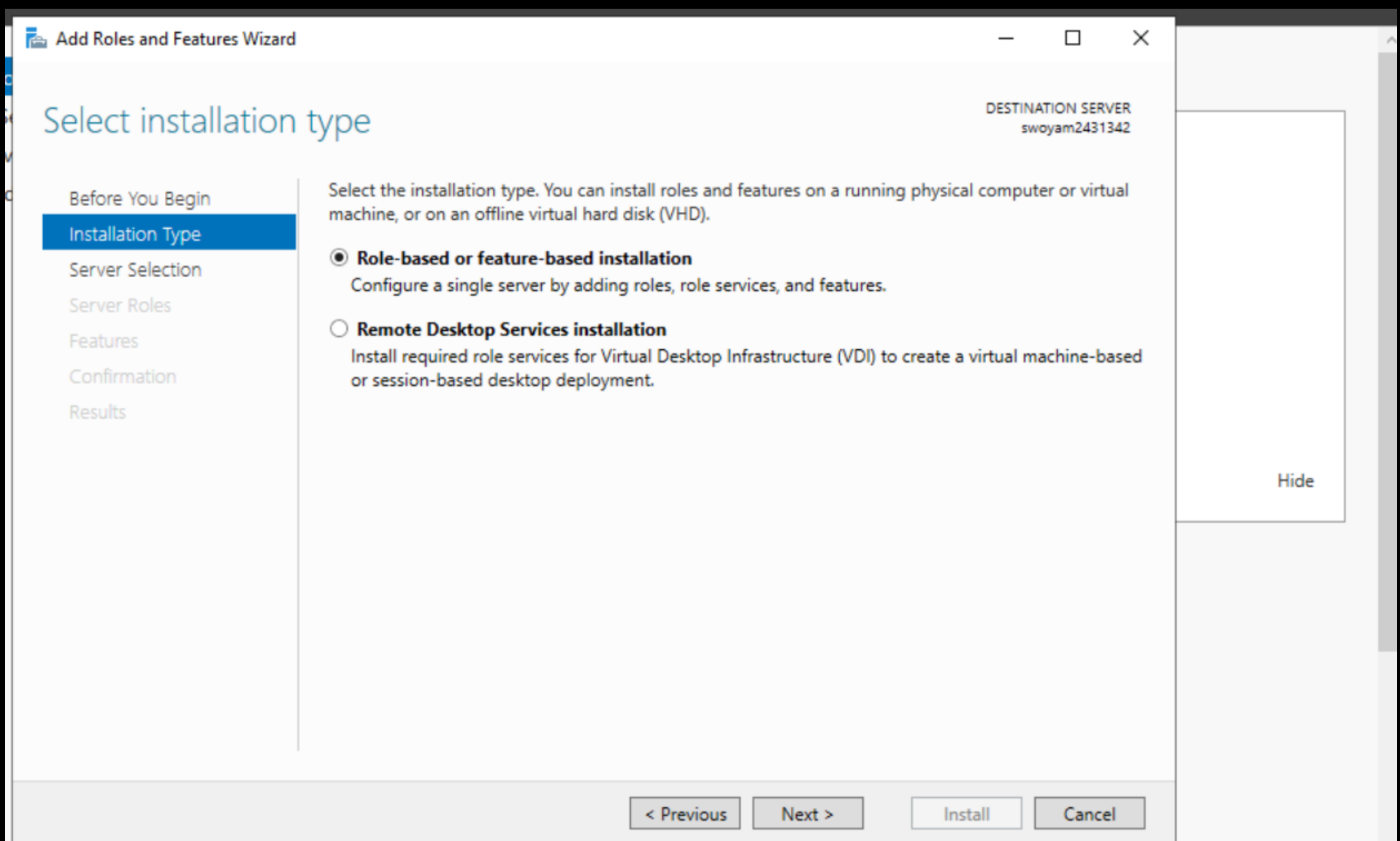
Ephemeral OS disk N/A

Data disks 0

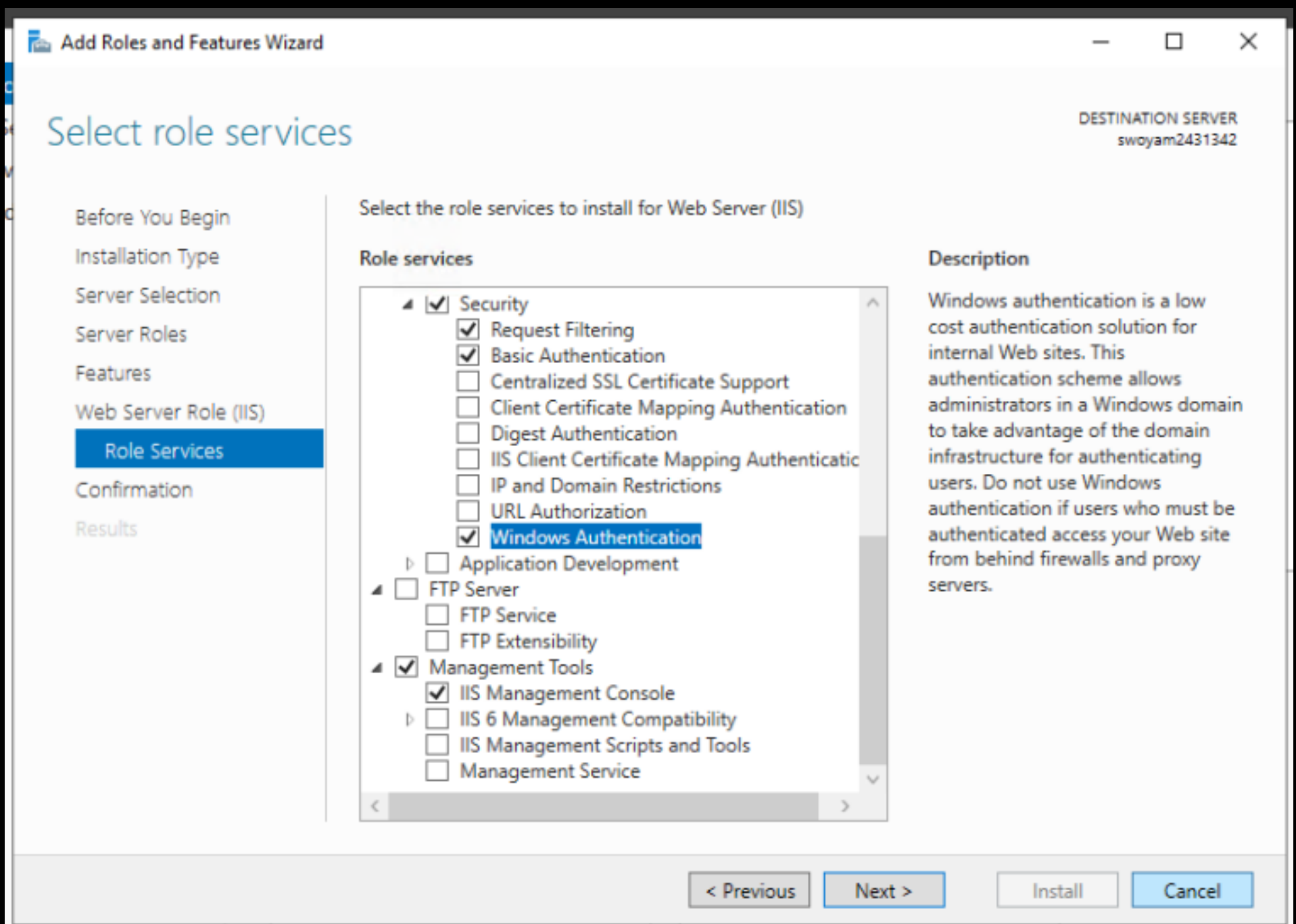
The above 2 images show the description of our now deployed virtual machine, where we took note of our Public IP address to be used later in the Remote Desktop Protocol Software. In my case the Public IP happened to be

52.255.206.99





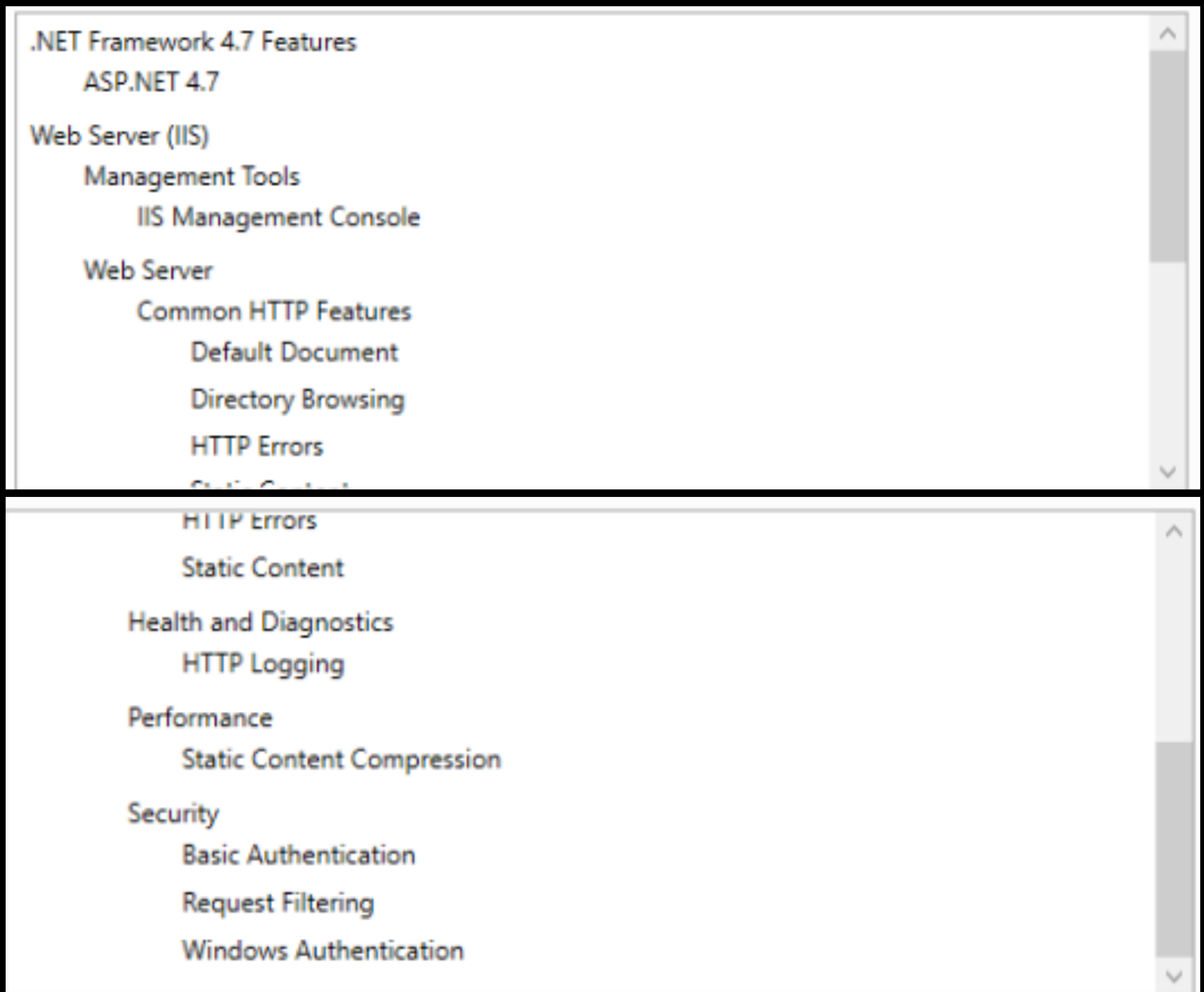
Here, we logged in to the virtual machine using our RDP software and now are selecting the installation type for our virtual machine. We chose Role-based installation because we are configuring a single server where only I will log in; unlike RDS installation which assumes a setup for multiple users to access a virtual desktop or apps.



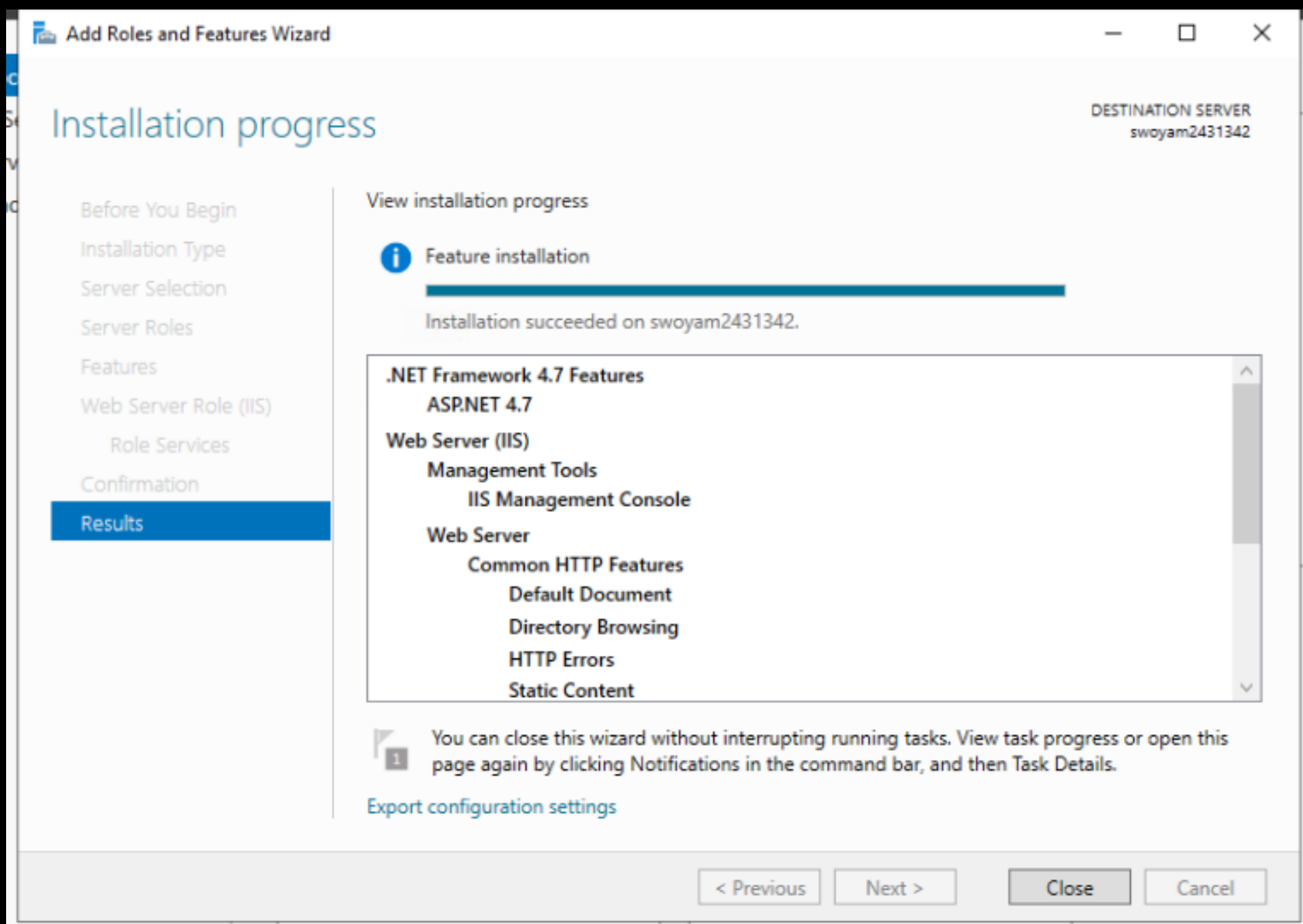
Here, we selected Basic Authentication and Windows Authentication along with IIS management console .

- **Basic Authentication** : This is a simple username/password combo sent with each request (encoded in Base64, but not encrypted unless used with HTTPS)
- **Windows Authentication** : Uses the Logged in windows account's credentials for the basic authentication

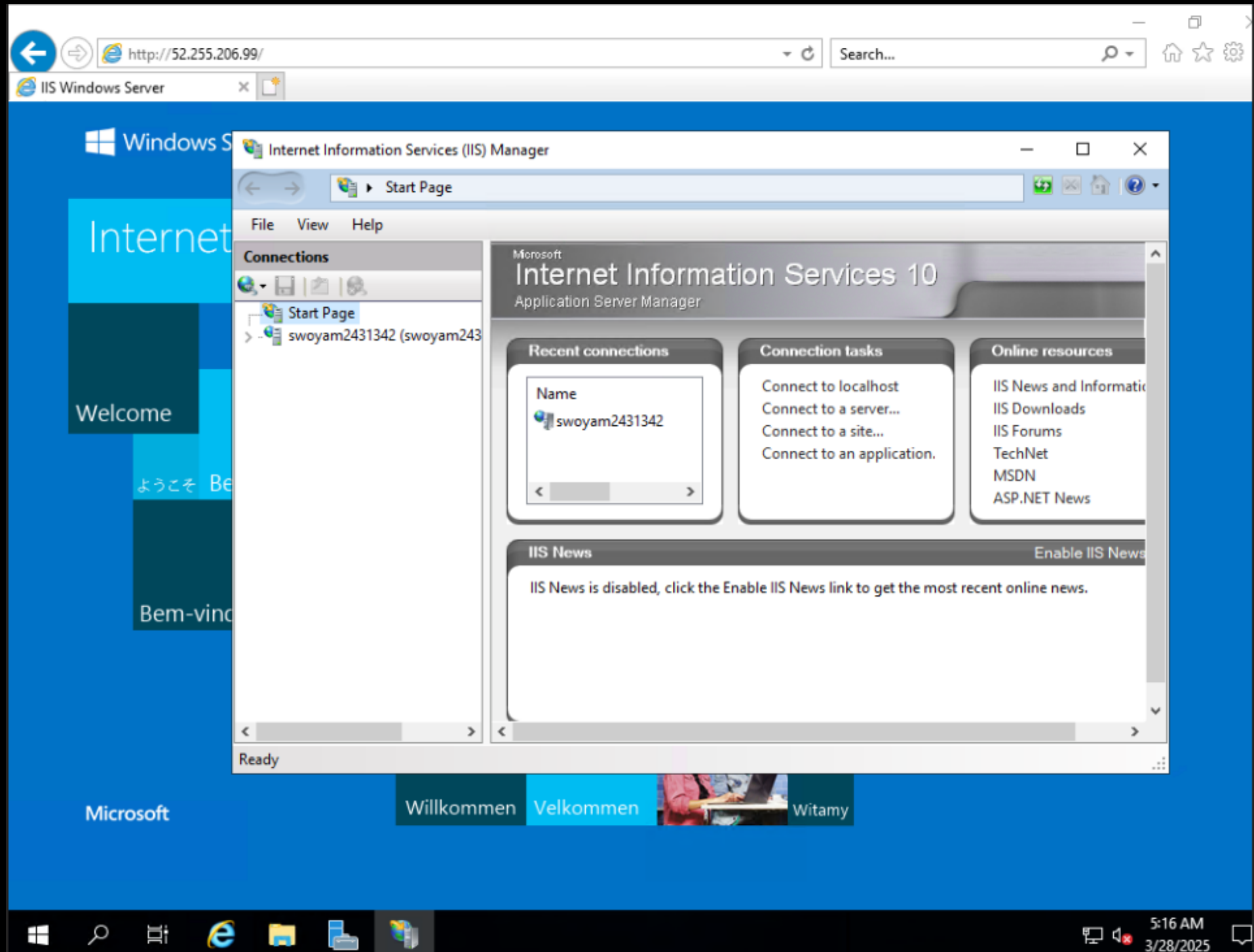
- IIS Management Console : It is a graphical tool to configure sites, bindings (http, https etc) and authentication (basic, windows etc), SSL certificates etc. Its basically the main way to manage IIS without using the console.

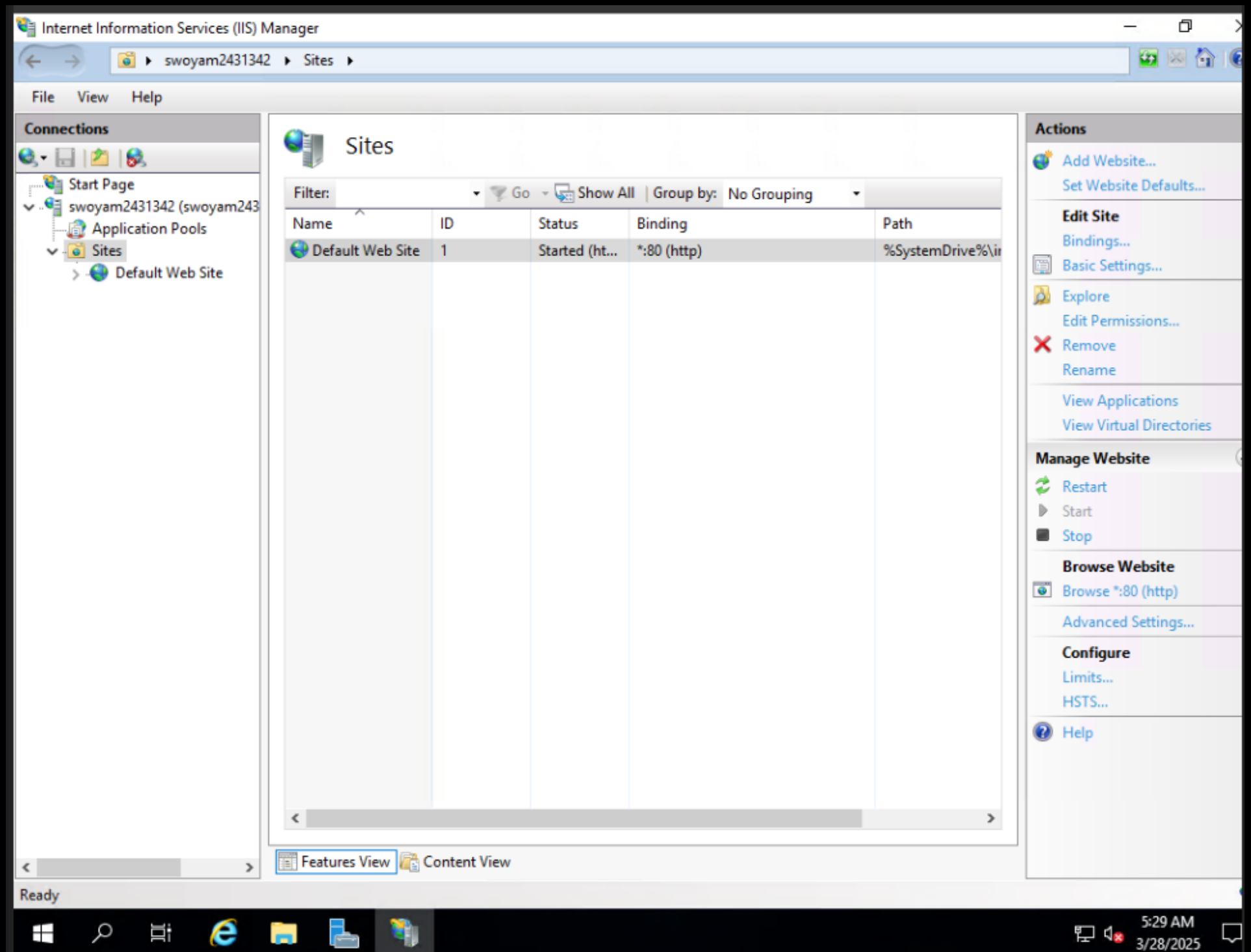
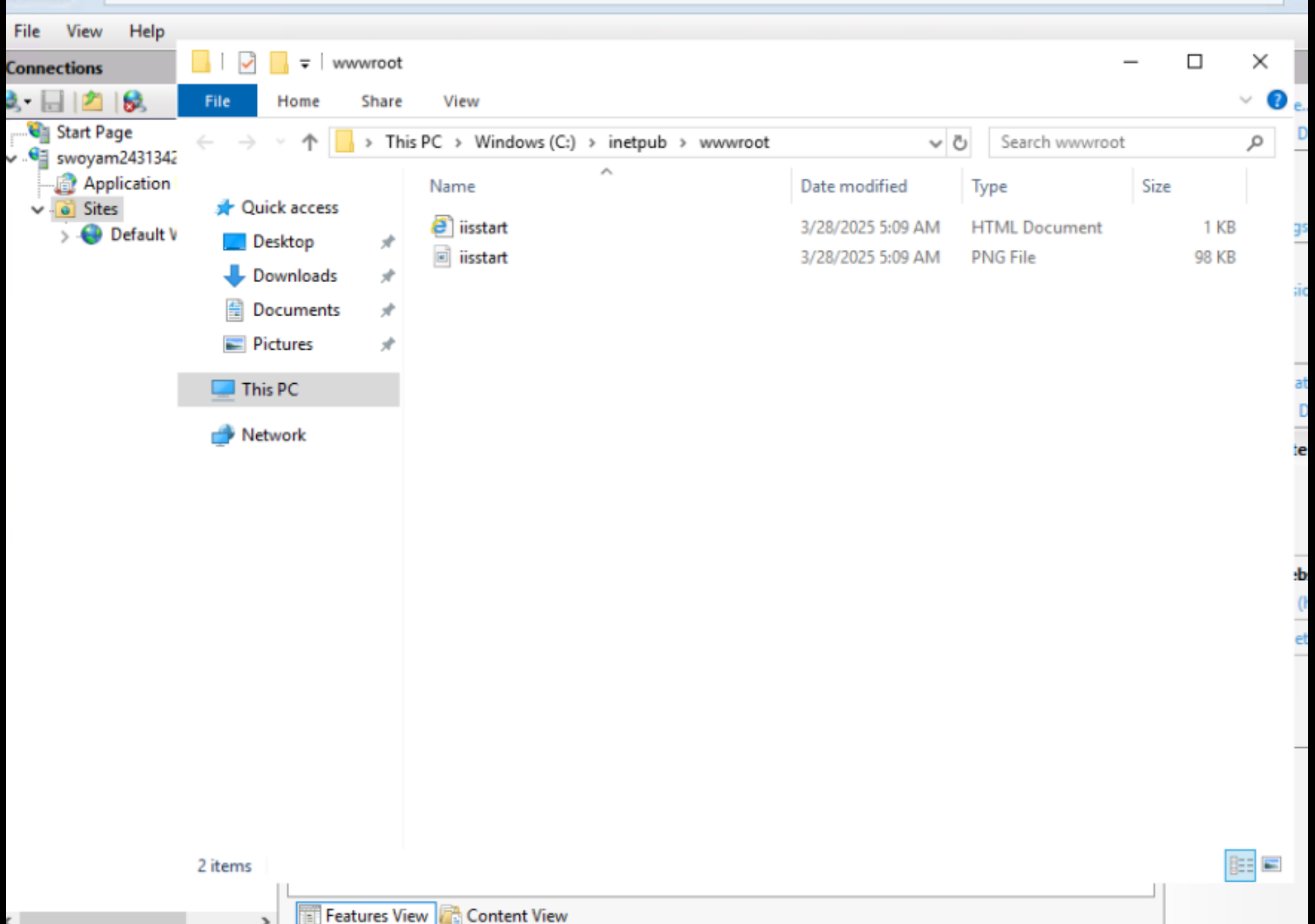


The above 2 images show the list of features & role-services we picked to install on our virtual machine.



This is the installation wizard prompting us that our installation succeeded and we may proceed further.





The above 3 images show, us opening up the IIS manager that we installed, to find the default location where our webpage was stored on by going inside; in my case, `swoyam2431342` > `sites` > `Default Website` > `Basic Settings` and copied the Physical path for the default `.htm` document which happened to be on `C:\inetpub\wwwroot`. After which we navigated to the path `C:\inetpub\wwwroot` using the file explorer.





```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Demo</title>
  <link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/6.1.1/css/all.min.css">
  <link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/tiny-slider/2.9.4/tiny-slider.css">
  <script src="https://cdnjs.cloudflare.com/ajax/libs/tiny-slider/2.9.4/min/tiny-slider.js"></script>
  <style>
    *{
margin: 0;
}
header{
  background-color: #262626;
}

li{
  list-style: none;
}

a{
  color: white;
  text-decoration: none;
}

.container{
  max-width: 1224px;
  width: 92%;
  margin: 0 auto;
}

.navbar{
  min-height: 70px;
  display: flex;
  justify-content: space-between;
  align-items: center;
}

.nav-branding{
  font-size: 2rem;
}

.nav-menu{
  display: flex;
  justify-content: space-between;
  align-items: center;
  gap: 60px;
}

.nav-link{
  transition: 0.3s ease-out;
}

.nav-link:hover{
  color: dodgerblue;
}
```

```
}

.hamburger{
  display: none;
  cursor: pointer;
}

.bar{
  display: block;
  width: 25px;
  height: 3px;
  margin: 5px auto;
  -webkit-transition: all 0.3s ease;
  transition: all 0.3s ease;
  background-color: white;
}

@media(max-width:1024px){
  .hamburger{
    display: block;
  }

  .hamburger.active .bar:nth-child(2){
    opacity: 0;
  }
  .hamburger.active .bar:nth-child(1){
    transform: translateY(8px) rotate(45deg);
  }
  .hamburger.active .bar:nth-child(3){
    transform: translateY(-8px) rotate(-45deg);
  }

  .nav-menu{
    position: fixed;
    left: -100%;
    top: 70px;
    gap: 0;
    flex-direction: column;
    background-color: #262626;
    width: 100%;
    text-align: center;
    transition: 0.3s;
  }

  .nav-item{
    margin: 16px 0;
  }

  .nav-menu.active{
    left: 0;
  }
}

#testimonials-section {
  height: auto;
  background-color: black;
  margin-top: 80px;
}
```



```
.container{
  width: 1600px;
  margin: auto;
}

.subcontainer{
  width: 85%;
  margin: auto;
}

.testimonials-wrapper {
  width: 100%;
  height: auto;
  display: flex;
  flex-direction: column;
  justify-content: center;
  align-items: center;
  gap: 25px;
  padding-top: 10px;
  position: relative;
}

.slide-img {
  height: 110px;
  width: 110px;
  margin: auto;
  border-radius: 50%;
  border: 5px solid lightgray;
  background-position: center;
  background-size: cover;
  box-shadow: 0 0 5px #bbb;
}

.img-1{
  background-image: url(https://images.pexels.com/photos/2128807/pexels-photo-2128807.jpeg?
cs=srgb&dl=pexels-david-garrison-2128807.jpg&fm=jpg);
}

.img-2{
  background-image: url(https://images.pexels.com/photos/415829/pexels-photo-415829.jpeg?
cs=srgb&dl=pexels-pixabay-415829.jpg&fm=jpg);
}

.img-3{
  background-image: url(https://images.pexels.com/photos/2379005/pexels-photo-2379005.jpeg?
cs=srgb&dl=pexels-italo-melo-2379005.jpg&fm=jpg);
}

.header {
  color: white;
  text-align: center;
}

.header h1 {
  font-size: 2.5rem;
}
```

```
.slider-wrapper {  
  width: 100%;  
}  
  
.slide {  
  width: 100%;  
  text-align: center;  
  color: white;  
  line-height: 1.5;  
  font-style: italic;  
  padding: 0 40px;  
}  
  
.slide p{  
  padding-bottom:20px;  
}  
  
.previous,  
.next {  
  padding: 2px;  
  width: 30px;  
  cursor: pointer;  
  border-radius: 50%;  
  outline: none;  
  transition: 0.7s ease-in-out;  
  border: 3px solid white;  
  background-color: black;  
  box-shadow: 0 0 5px #bbb;  
  position: absolute;  
  top: 50%;  
  z-index: 1;  
}  
  
.previous {  
  left: 0%;  
}  
  
.next {  
  right: 0%;  
}  
  
.previous:hover,  
.next:hover {  
  border: 3px solid white;  
}  
  
#controls i {  
  color: white;  
  font-size: 1rem;  
}  
  
.tns-nav {  
  text-align: center;  
}  
  
.tns-nav button {  
  border: none;
```

```
padding: 8px;
border-radius: 50%;
background-color: white;
margin-left: 15px;
}

.tns-nav .tns-nav-active {
  background-color: gray;
}

@media(max-width:1600px){
  .container{
    width: 100%;
  }
}

</style>
</head>
<body>
  <header>
    <div class="container">
      <nav class="navbar">
        <a href="#" class="nav-branding">Azure</a>
        <ul class="nav-menu">
          <li class="nav-item">
            <a href="#" class="nav-link">Home</a>
          </li>
          <li class="nav-item">
            <a href="#" class="nav-link">About</a>
          </li>
          <li class="nav-item">
            <a href="#" class="nav-link">Contact</a>
          </li>
        </ul>
        <div class="hamburger">
          <span class="bar"></span>
          <span class="bar"></span>
          <span class="bar"></span>
        </div>
      </nav>
    </div>
    <section id="testimonials-section">
      <div class="container">
        <div class="subcontainer">

          <div class="testimonials-wrapper">

            <div class="header">
              <h1>Testimonials</h1>
            </div>

            <div class="slider-wrapper">
              <div class="slider">
                <div class="slide">
                  <div class="slide-img img-1"></div>
                  <br>
                  <h2>"Lorem ipsum dolor sit amet consectetur adipisicing elit. In eligendi quisquam
praesentium totam. Maiores, distinctio
```

&lt;/div&gt;

&lt;/div&gt;

&lt;/div&gt;

div>

div>

**V>**

>

on>

```
const hamburger = document.querySelector(".hamburger");
```

```
const navMenu = document.querySelector(".nav-menu");
```

### hamburger.addEventListener("click", () => {

```
hamburger.classList.toggle("active");
```

```
navMenu.classList.toggle("active");
```

 $\})$ 

```
document.querySelectorAll(".nav-link").forEach(n => n.addEventListener("click", () => {
```

```
hamburger.classList.remove("active");
```

```
navMenu.classList.remove("active");
```

})))

```
const tnslider = tns({
```

```
container: ".slider",
```

```
slideBy: 1,
```

```
speed: 700,
```

```
nav: true,
```

```
navPosition: "bottom",
```

```
autoplay: true,
```

```
autoplayTimeout: 6000,
```

```
autoplayButtonOutput: false,
```

```
controlsContainer: '#controls',
```

```
prevButton: ".previous",
```

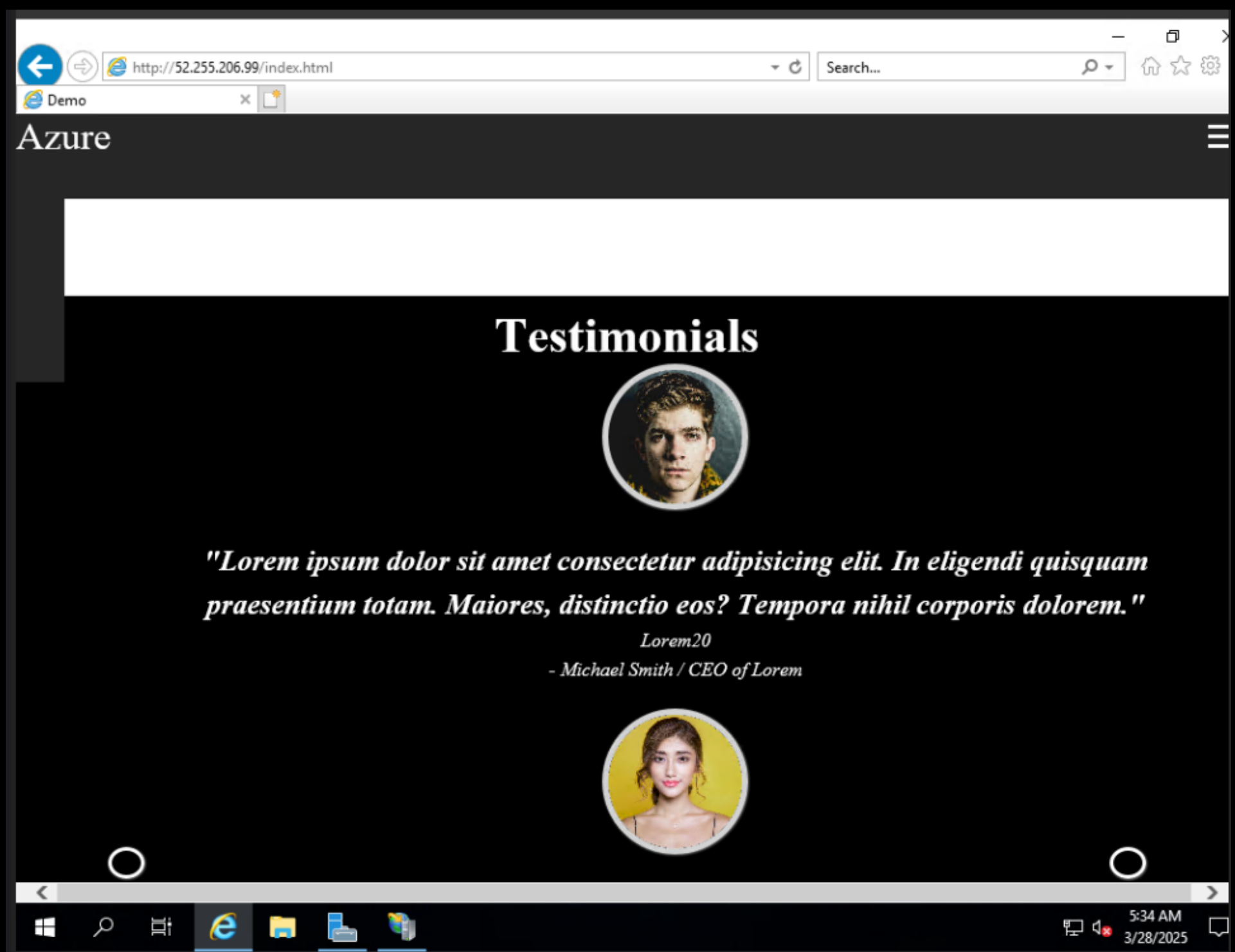
```
nextButton: ".next"
```

```
});
```

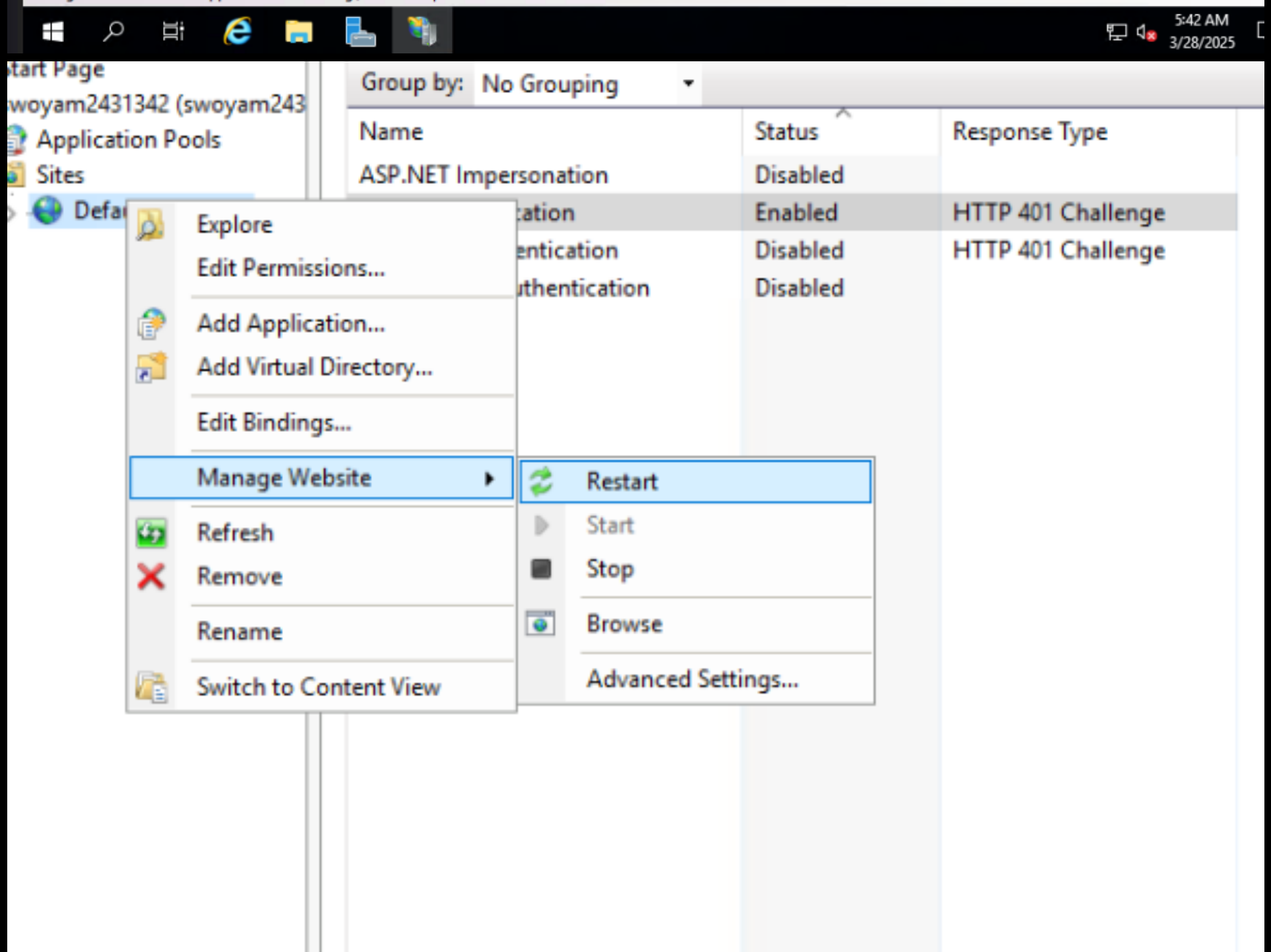
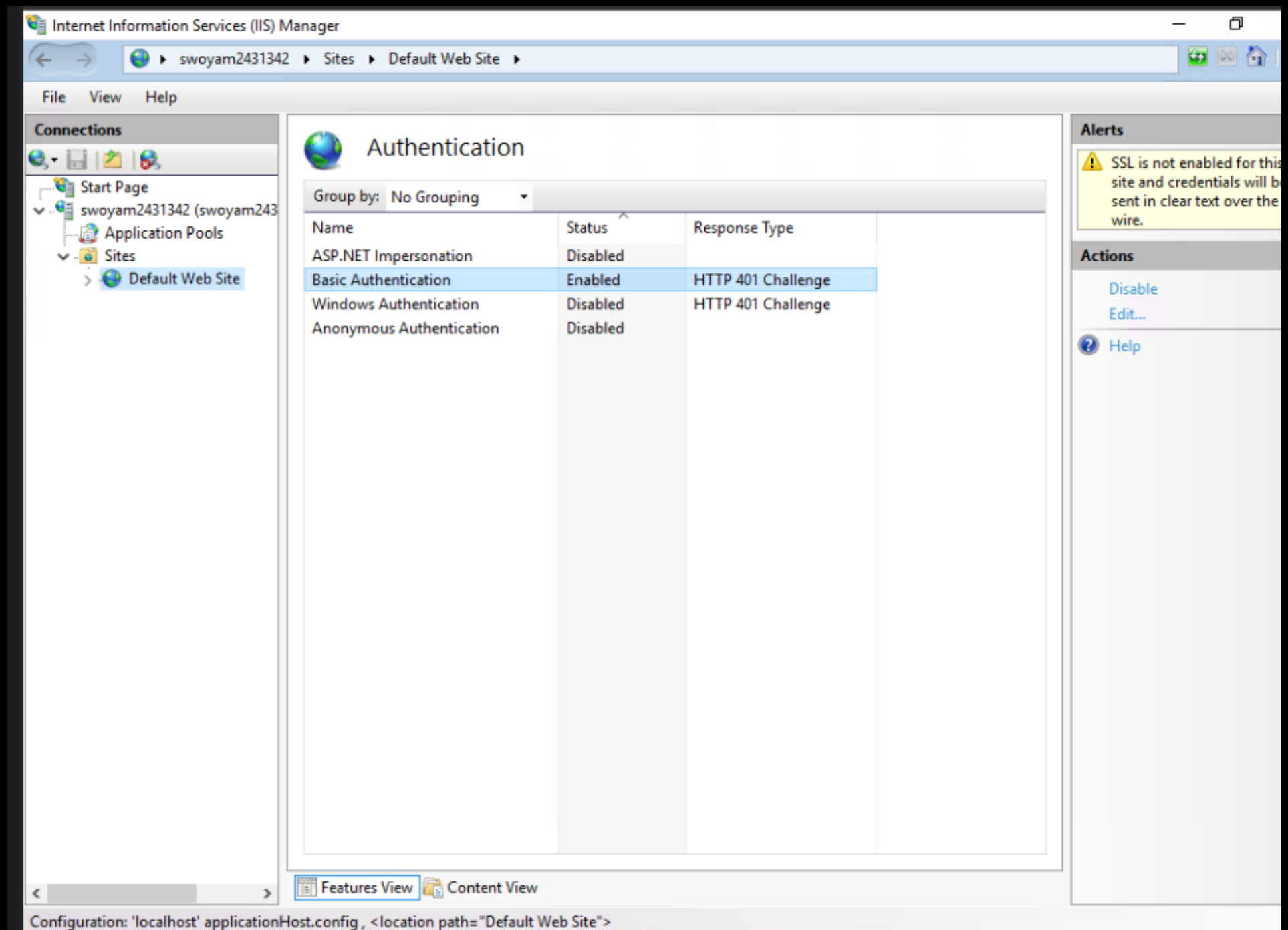
```
</script>
```

```
</body>
```

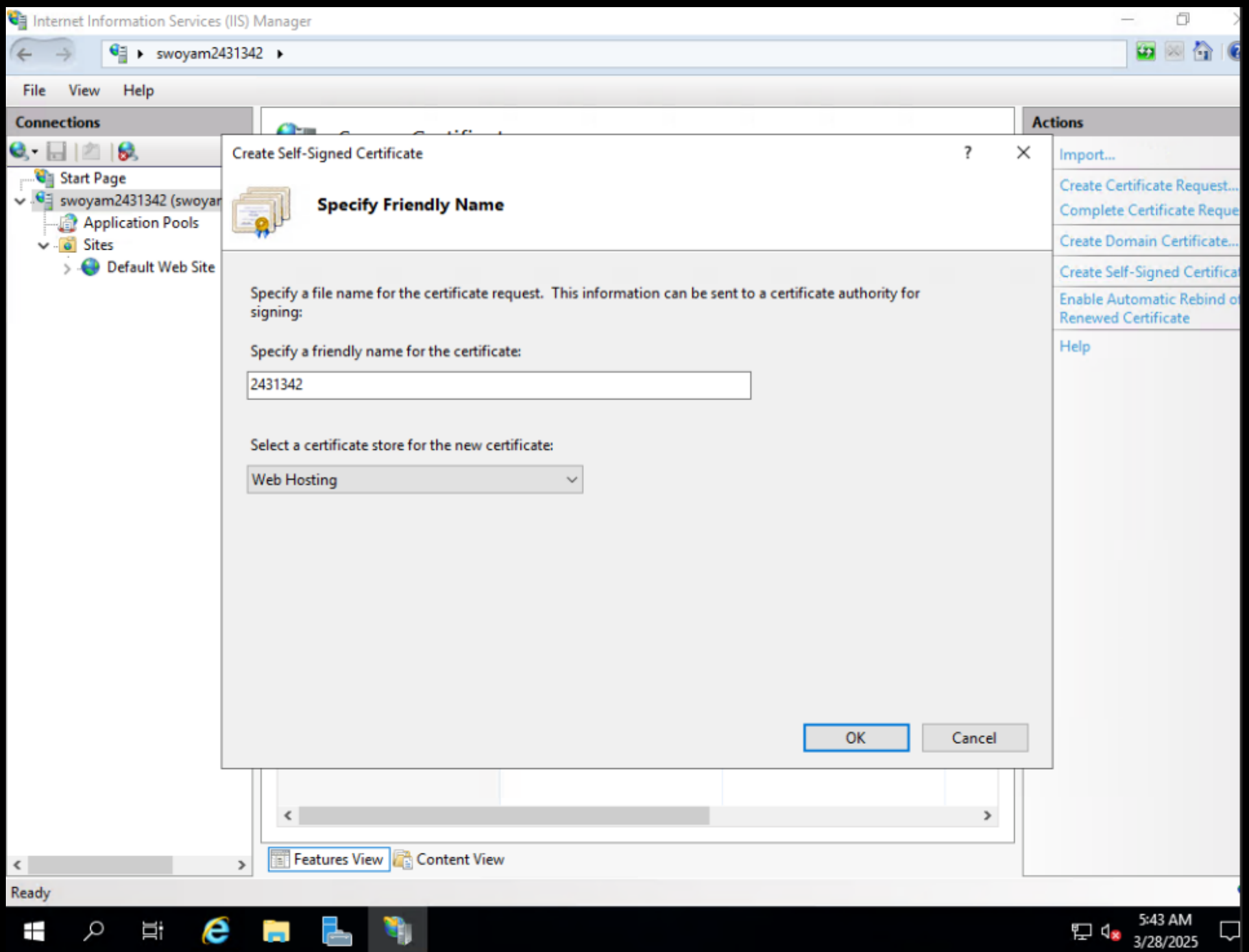
```
</html>
```



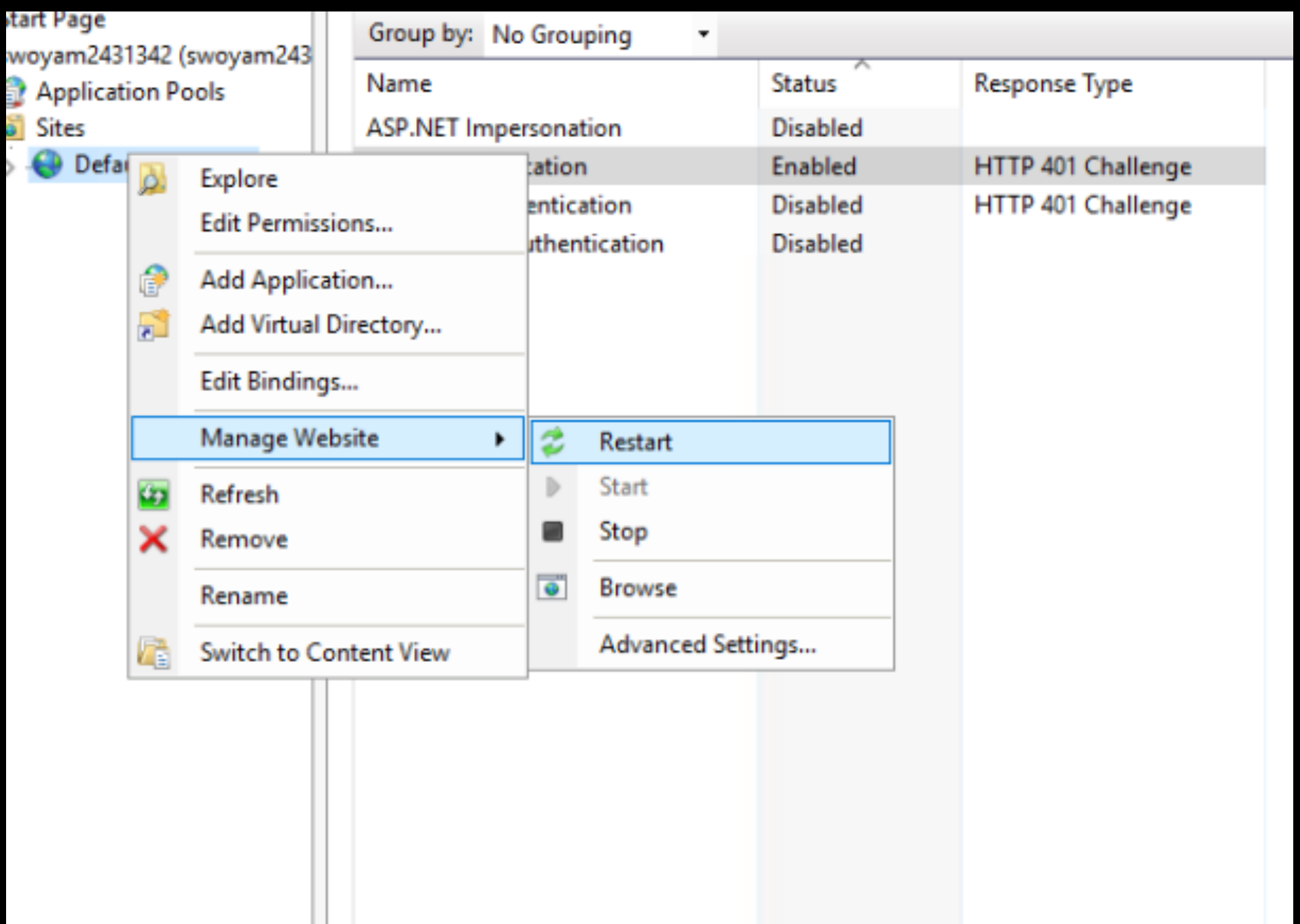
After creating the `index.html` file, we then navigated to `{OUR_VMS_PUBLICIP}/index.html`, in my case that was `52.255.206.99/index.html` to view the webpage that we just created.



The above 2 images, show us enabling basic authentication for our website, and restarting the server. After which trying to access that webpage prompts us to enter our username & password combination.



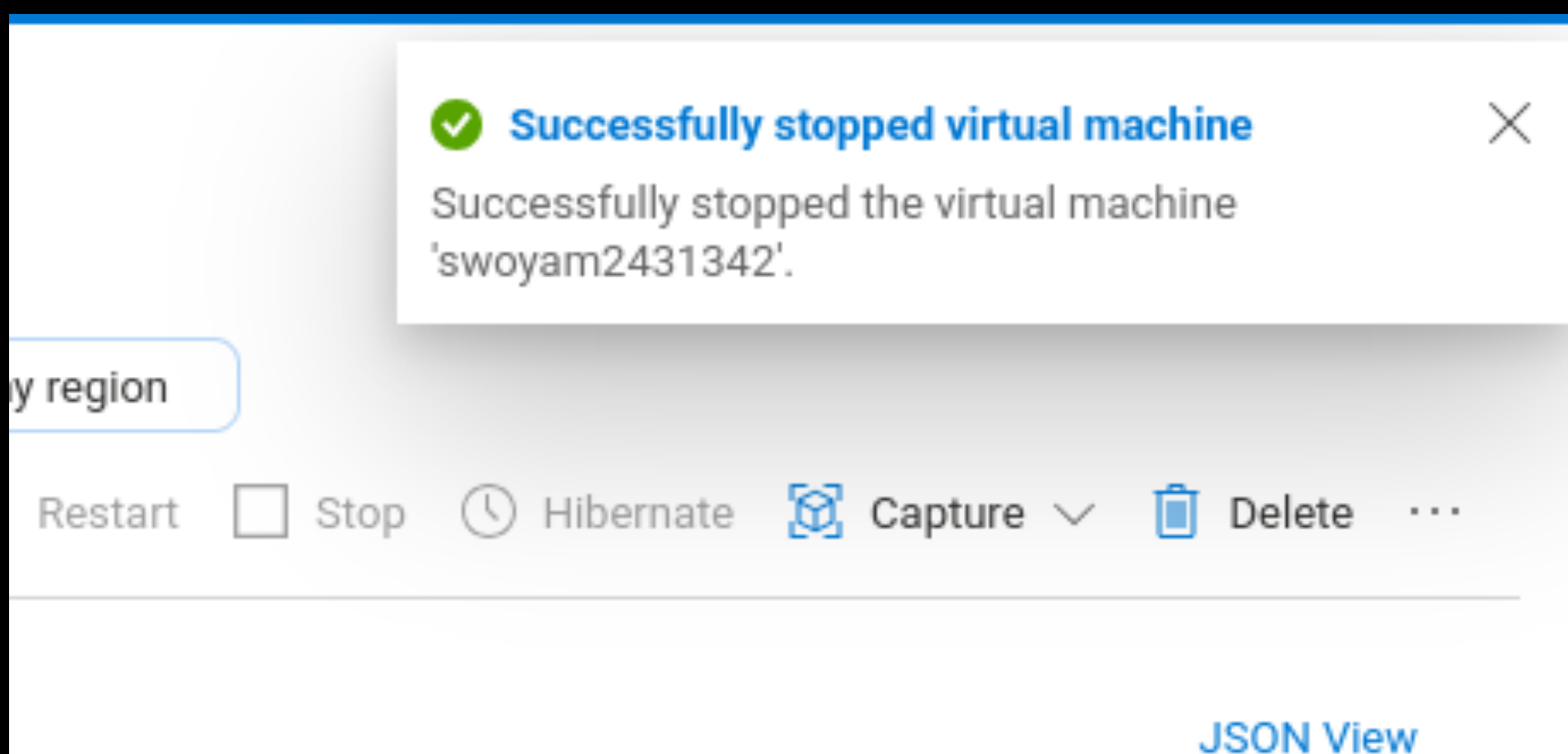
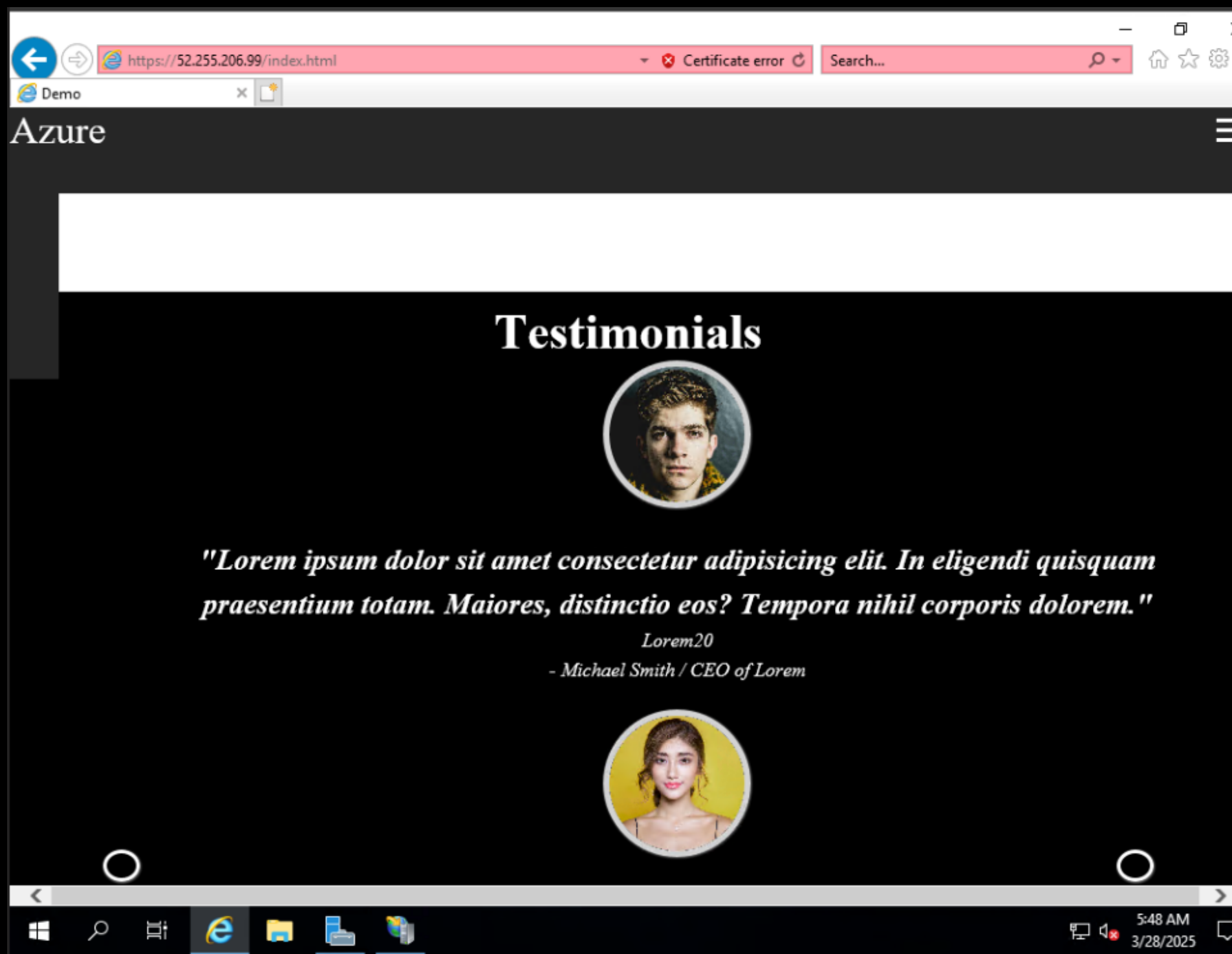
The above image shows the creation of a self signed certificate to enable the use of **HTTPS** on our webpage.



After creating the SSL certificate, we proceeded to restart the website for **https** to take place and the image below



shows https working:



Finally, to prevent our credit depleting, we stop our virtual server entirely.