

Sunward Portal Management System

DOCUMENT INFORMATION

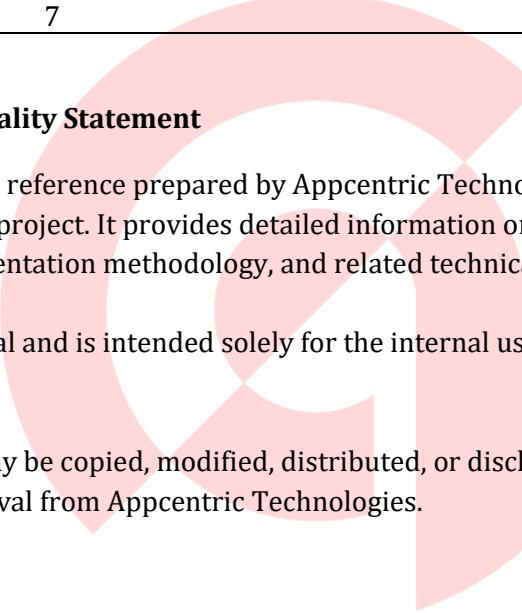
Prepared by	Appcentric Technologies
Client	Sunward
Project Name	Sunward Portal Management System
Prepared by	Arun
Module Name	IIS Deployment & Publish
Pages	7

Disclaimer and Confidentiality Statement

This document is a technical reference prepared by Appcentric Technologies for the Sunward Portal Management System project. It provides detailed information on the system architecture, technical approach, implementation methodology, and related technical specifications.

This document is confidential and is intended solely for the internal use of the authorized technical team of Sunward.

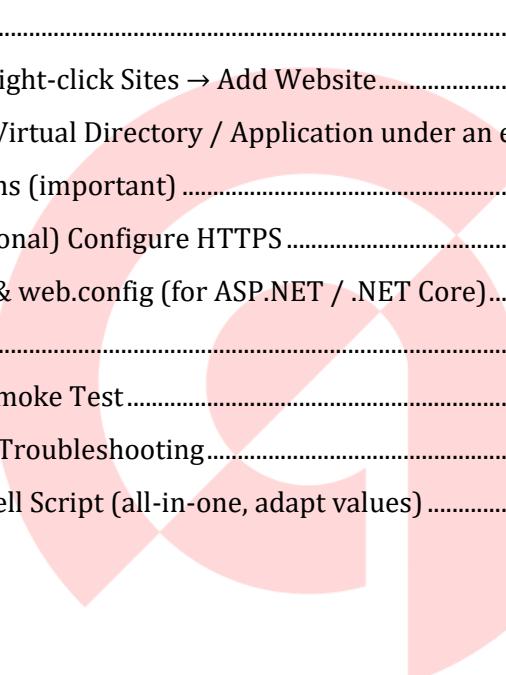
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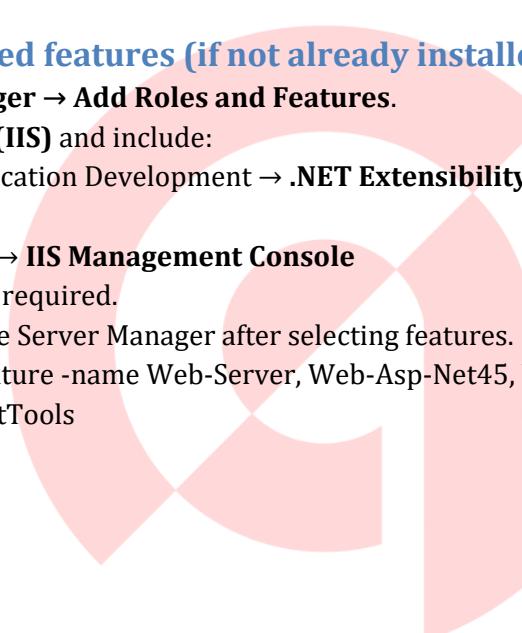
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1. Preliminaries (what you need)

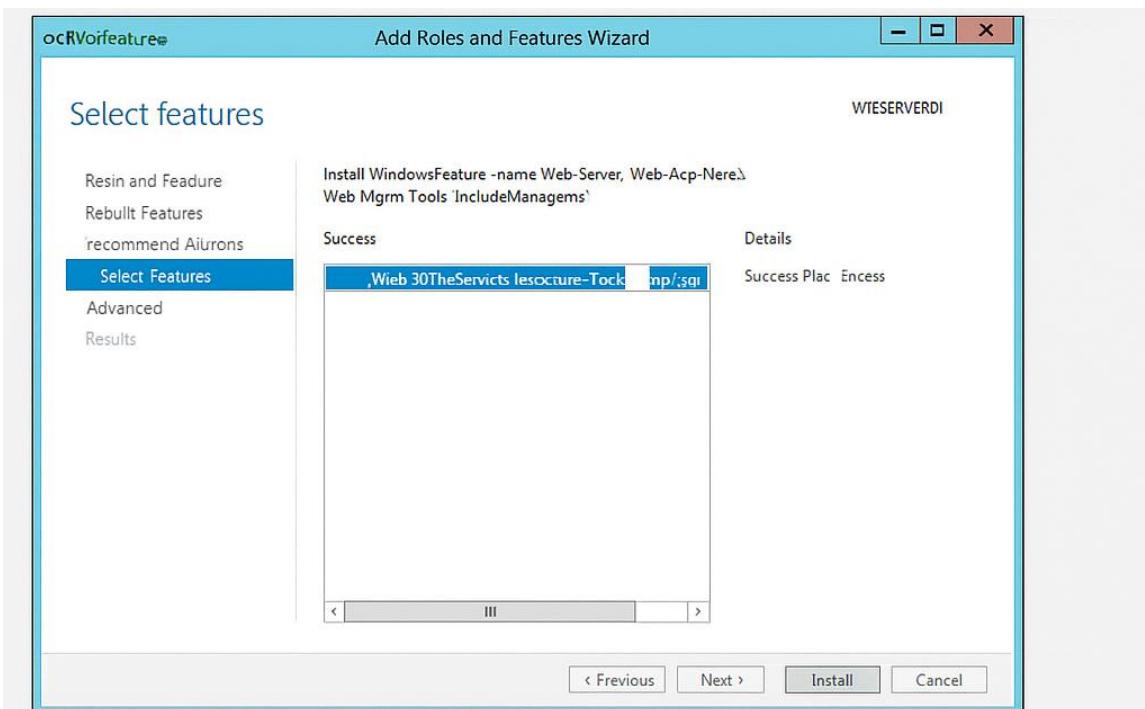
1. A Windows server (Windows Server 2016/2019/2022) with IIS installed OR access to an IIS server.
2. Administrator access on server.
3. Build/publish output of your web app (for ASP.NET Core publish folder or .NET Framework compiled site). Typical output folder: C:\Temp\ Publish\SunwardPortal.
4. A DNS entry pointing portal.example.com → server IP (for production or test).
5. SSL certificate if using HTTPS.

2. Install IIS & required features (if not already installed)

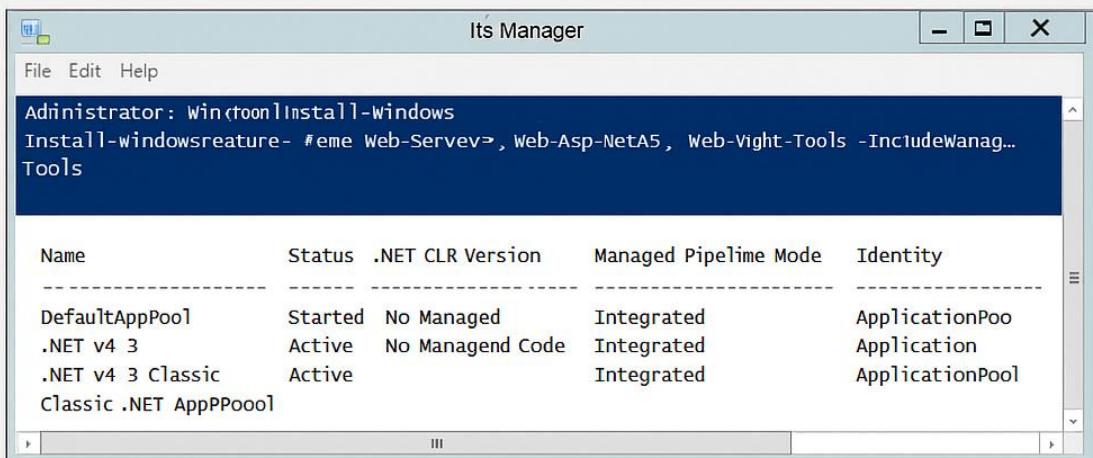
1. Open **Server Manager** → **Add Roles and Features**.
2. Select **Web Server (IIS)** and include:
3. Web Server → Application Development → **.NET Extensibility, ASP.NET, ISAPI Extensions, ISAPI Filters**
4. Management Tools → **IIS Management Console**
5. Install and reboot if required.
Screenshot: capture Server Manager after selecting features.
6. Install-WindowsFeature -name Web-Server, Web-Asp-Net45, Web-Mgmt-Tools -
IncludeManagementTools



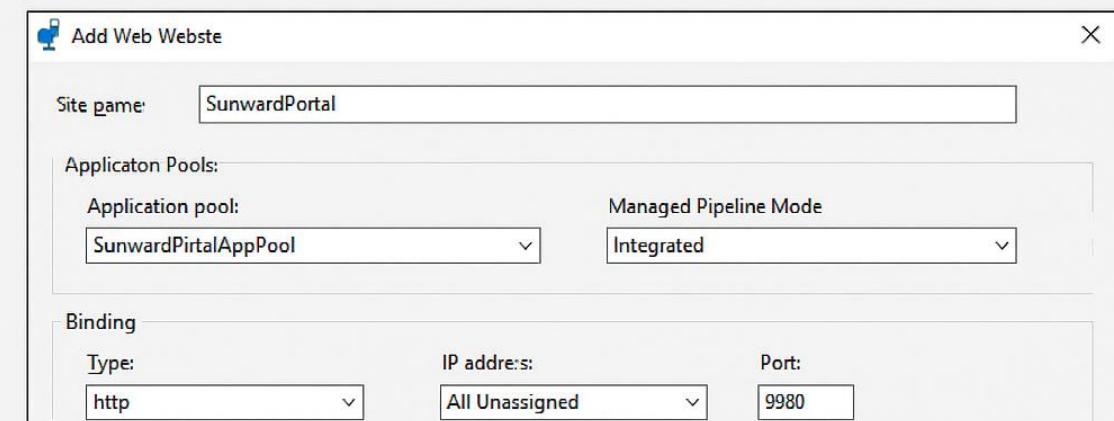
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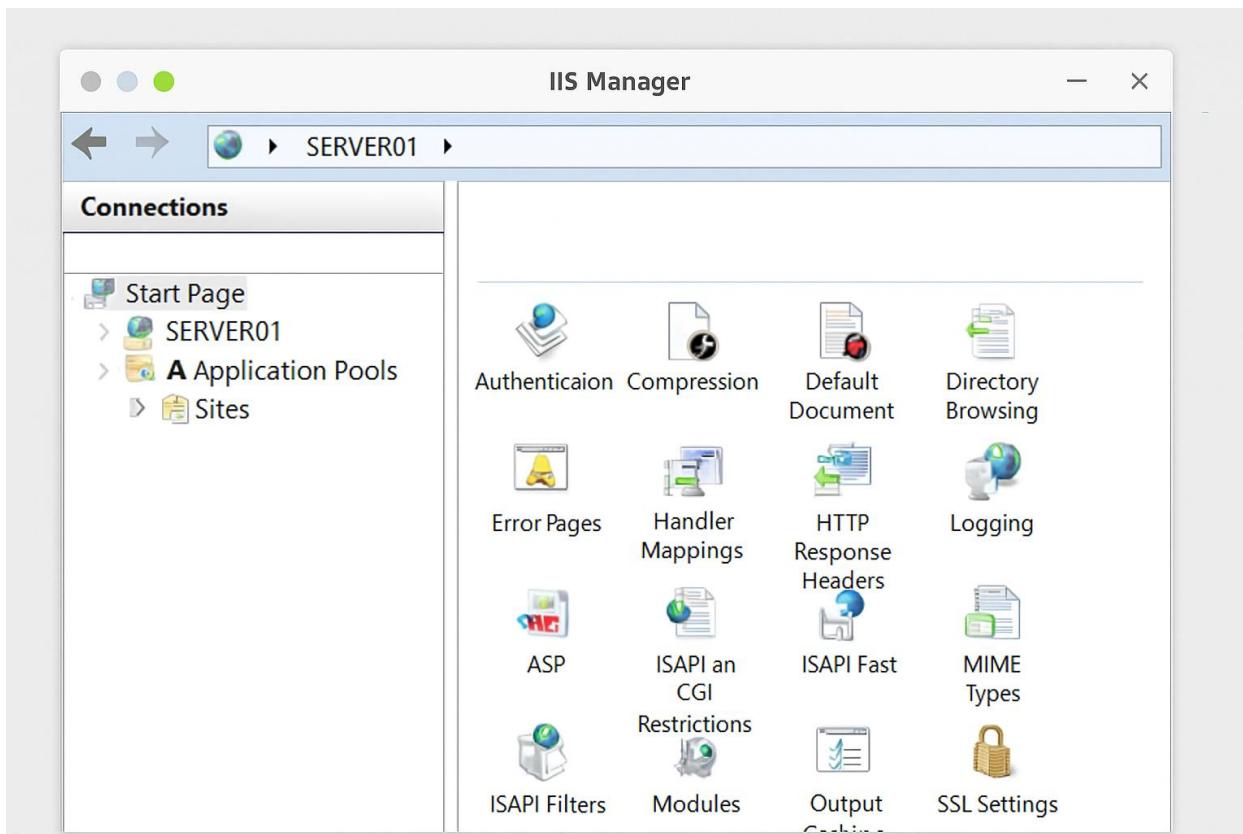


2. Install: ISNN. ImpTool\webabapp-eamd -Ile : All Figure 1. sourcesstholl



3. SunwardPortalAppPool Add | SunwardPortal added





3. Create Application Pool

1. Open **IIS Manager** (inetmgr).
 2. Select **Application Pools** → **Add Application Pool...**
 3. Name: SunwardPortalAppPool
 4. .NET CLR Version: No Managed Code (for ASP.NET Core) or v4.0 for .NET Framework
 5. Managed pipeline: Integrated
 6. Click **OK**.
- Screenshot:** new App Pool highlighted.

Internet Information Services (IIS) Manager

Connections > Application Pools

Application pools are used to group and separate sets of IIS worker processes that share the same configuration. By separating applications, you achieve the level of application isolation required by your environment.

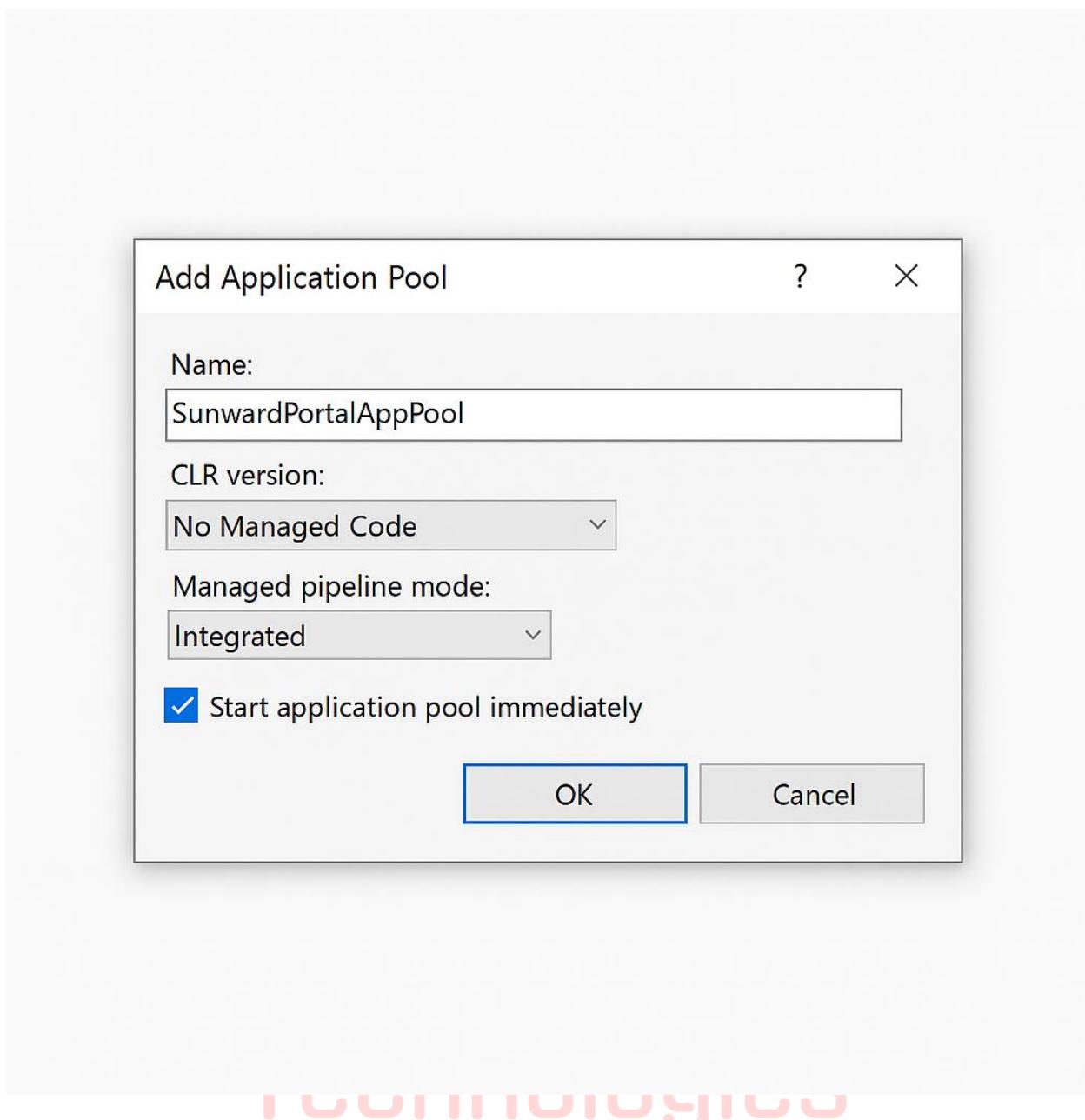
+ Add Application Pool...		Set Application Pool Defaults...			<input type="button" value="Filter"/>
Name	Status	.NET CLR Version	Managed Pipeline Mode	Start Auton	
SunwardPortalAppPool	Started	No Managed Code	Integrated	True	
.NET v4.5	Started	v4.0	Classic	True	
.NET v4.5 Classic	Started	v4.0.30319	Classic	True	
ASP.NET v4.0	Started	v4.0.30319	Classic	True	
ASP.NET v4.0 Classic	Started	v4.0	Integrated	True	
ASP.NET v4.0 Classic	Started	v4.0.30319	Classic	True	

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Filter ably ssearch terms.



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Import-Module WebAdministration

```
New-WebAppPool -Name "SunwardPortalAppPool"
```

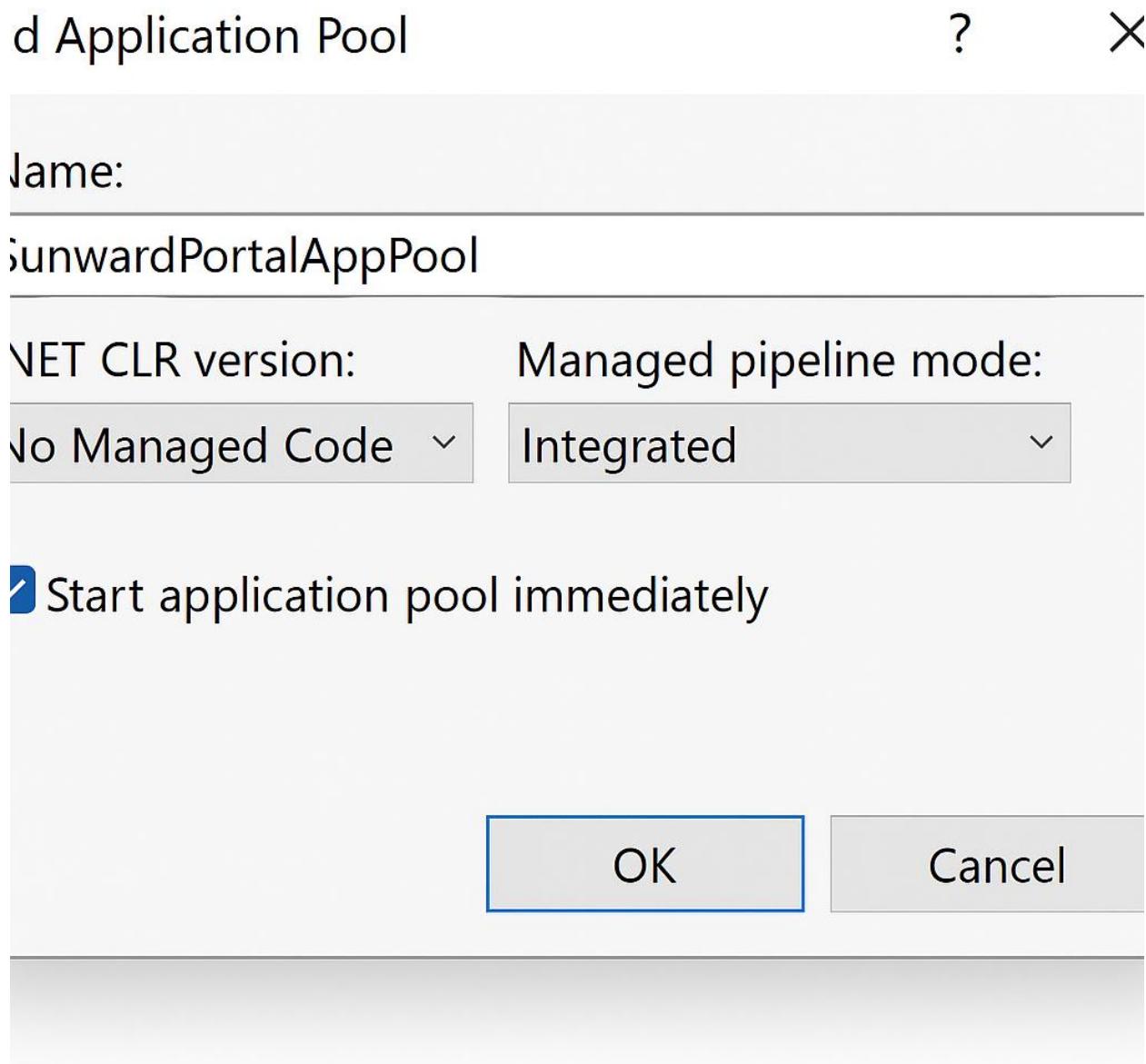
```
Set-ItemProperty IIS:\AppPools\SunwardPortalAppPool -Name processModel.identityType -Value "ApplicationPoolIdentity"
```

```
# If .NET Framework site:
```

```
Set-ItemProperty IIS:\AppPools\SunwardPortalAppPool -Name managedRuntimeVersion -Value "v4.0"
```

4. Create Physical Folder & Copy Files

1. On the server create folder: C:\inetpub\wwwroot\SunwardPortal.
2. Copy your published web app files there (index, web.config, bin, wwwroot, etc). For ASP.NET Core, ensure the web.config is present (or configure reverse-proxy).
3. **Tip:** If files are coming from CI, you can use FTP, SMB, or copy over via RDP.

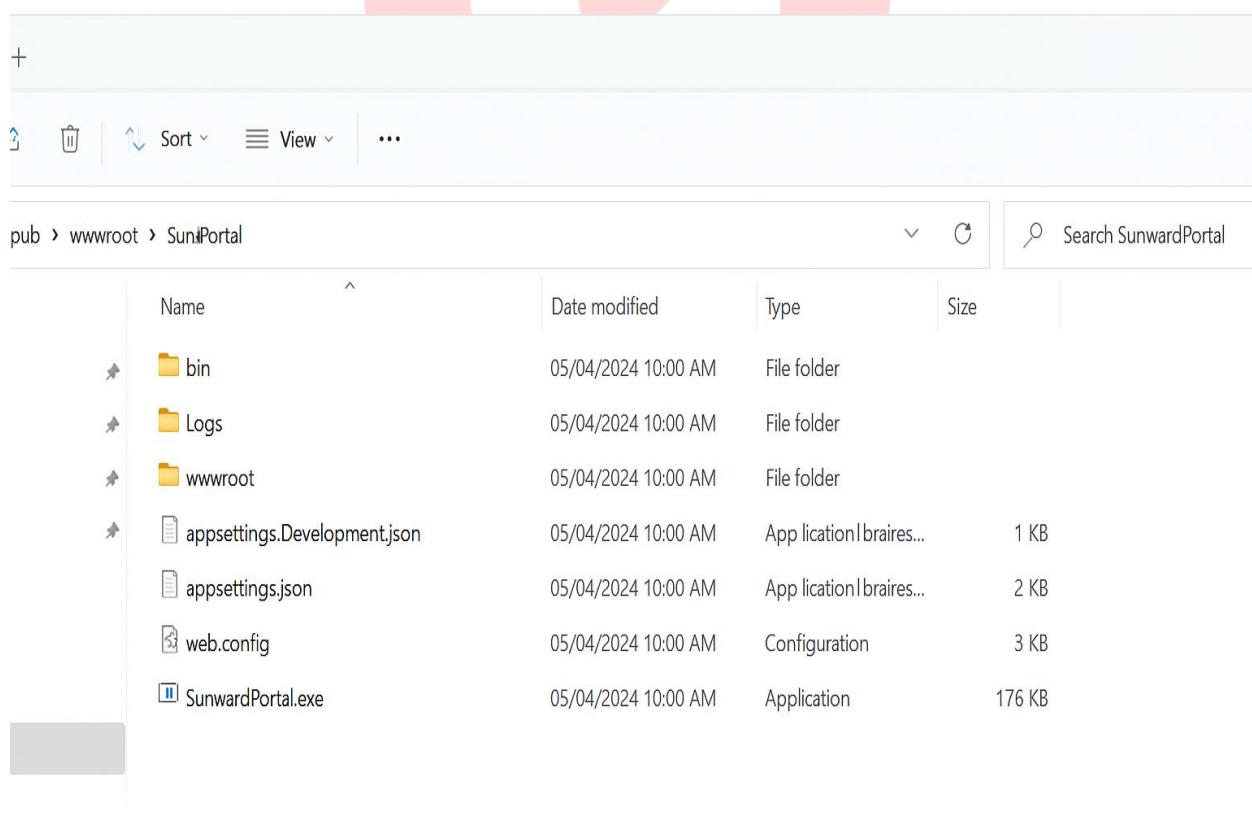


5. Create Site in IIS

5.1. In IIS Manager → right-click Sites → Add Website

Site name: SunwardPortal

1. Physical path: C:\inetpub\wwwroot\SunwardPortal
2. Application pool: SunwardPortalAppPool
3. Binding:
 - Type: http (or https)
 - IP address: All Unassigned (or specific)
 - Port: 8080
 - Host name: portal.example.com
 - Click OK.



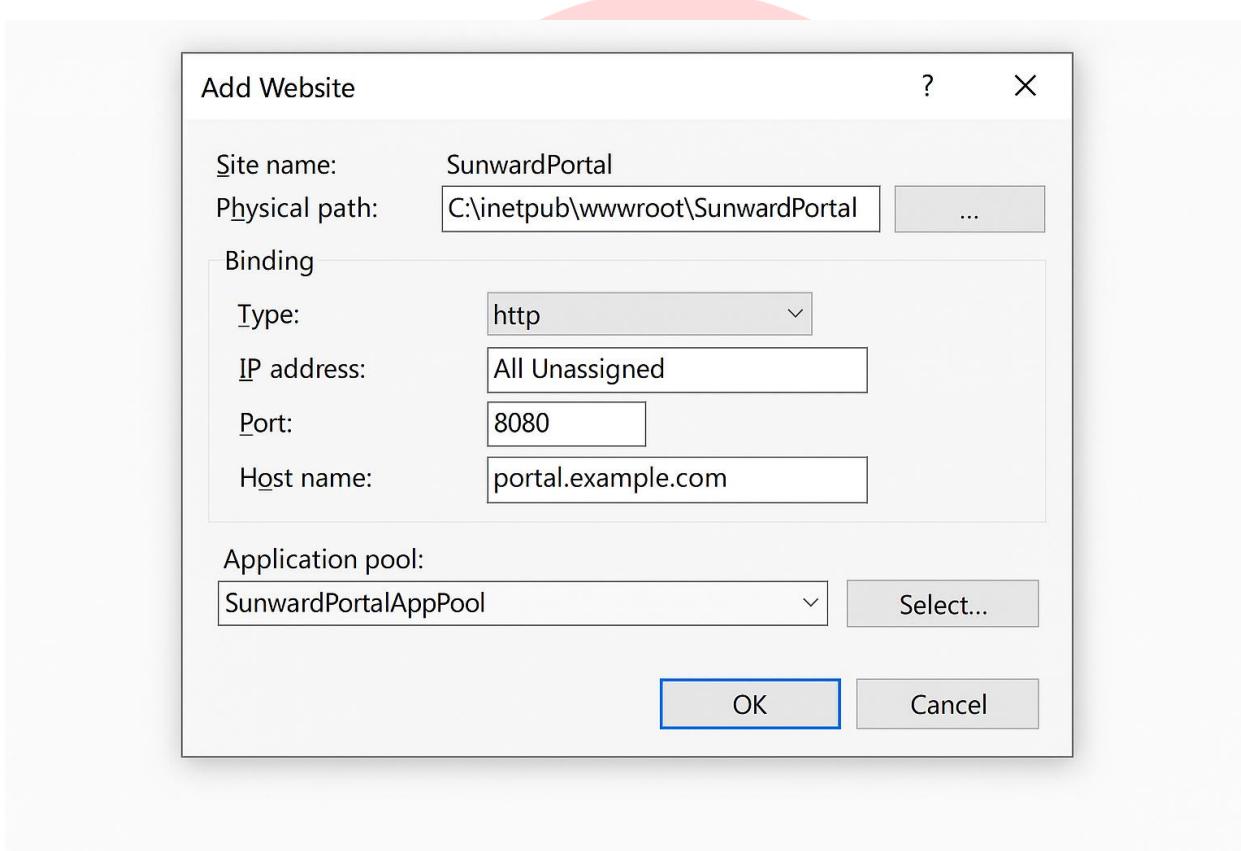
The screenshot shows the Windows File Explorer interface displaying the contents of the SunwardPortal website's wwwroot folder. The path shown is pub > wwwroot > SunwardPortal. The folder structure includes subfolders like bin, Logs, and wwwroot, and files like appsettings.Development.json, appsettings.json, web.config, and SunwardPortal.exe. All items were modified on 05/04/2024 at 10:00 AM.

Name	Date modified	Type	Size
bin	05/04/2024 10:00 AM	File folder	
Logs	05/04/2024 10:00 AM	File folder	
wwwroot	05/04/2024 10:00 AM	File folder	
appsettings.Development.json	05/04/2024 10:00 AM	Application/json	1 KB
appsettings.json	05/04/2024 10:00 AM	Application/json	2 KB
web.config	05/04/2024 10:00 AM	Configuration	3 KB
SunwardPortal.exe	05/04/2024 10:00 AM	Application	176 KB

5.2.(Optional) Create Virtual Directory / Application under an existing site

Expand Sites → select the site (e.g., Default Web Site) → right-click → **Add Application** (or Add Virtual Directory).

1. Alias: SunwardPortal
2. Physical path: C:\inetpub\wwwroot\SunwardPortal
3. Application pool: SunwardPortalAppPool
 - Click **OK**.



6. Set Folder Permissions (important)

1. • Right click C:\inetpub\wwwroot\SunwardPortal → **Properties** → **Security** → **Edit** → **Add**.

2. • Add user: IIS AppPool\SunwardPortalAppPool and give **Read & execute, List folder contents, Read**. Add write only if app writes to folder.
3. • Click OK.

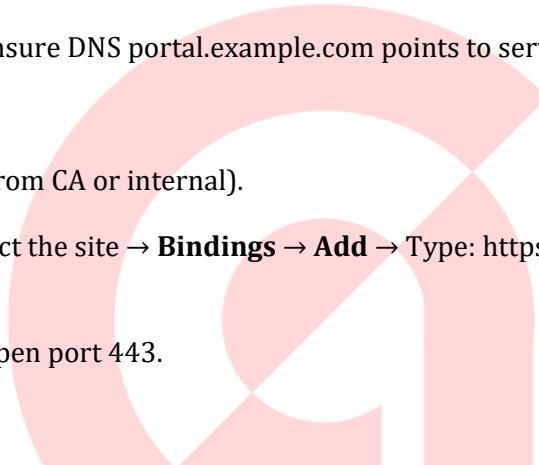
7. Bind Domain & (Optional) Configure HTTPS

For HTTP:

Site binding set in step 4. Ensure DNS portal.example.com points to server IP.

For HTTPS:

1. Obtain certificate (from CA or internal).
2. In **IIS Manager** select the site → **Bindings** → **Add** → Type: https → IP/Host/Port 443 → select SSL cert.
3. If using a firewall, open port 443.



Bindings			?	X
Type	Host Name	Port	Add... Edit... Remove	
https	portal.example.com	443		
			Add...	Edit...
			Remove	Close

Security

X

General Sharing Security Previous Versions

Object name: C:\inetpub\wwwroot\SunwardPortal

Group or user names:

- SYSTEM
- Administrators (WEBSERVER01\Administrators)
- Interactive
- IIS AppPool\SunwardPortalAppPool

To change permissions, click Edit.

Edit...

Permissions for IIS AppPool\	Allow	Deny
Full control		
Modify		
Read & execute	✓	
List folder contents	✓	
Read	✓	
Write		

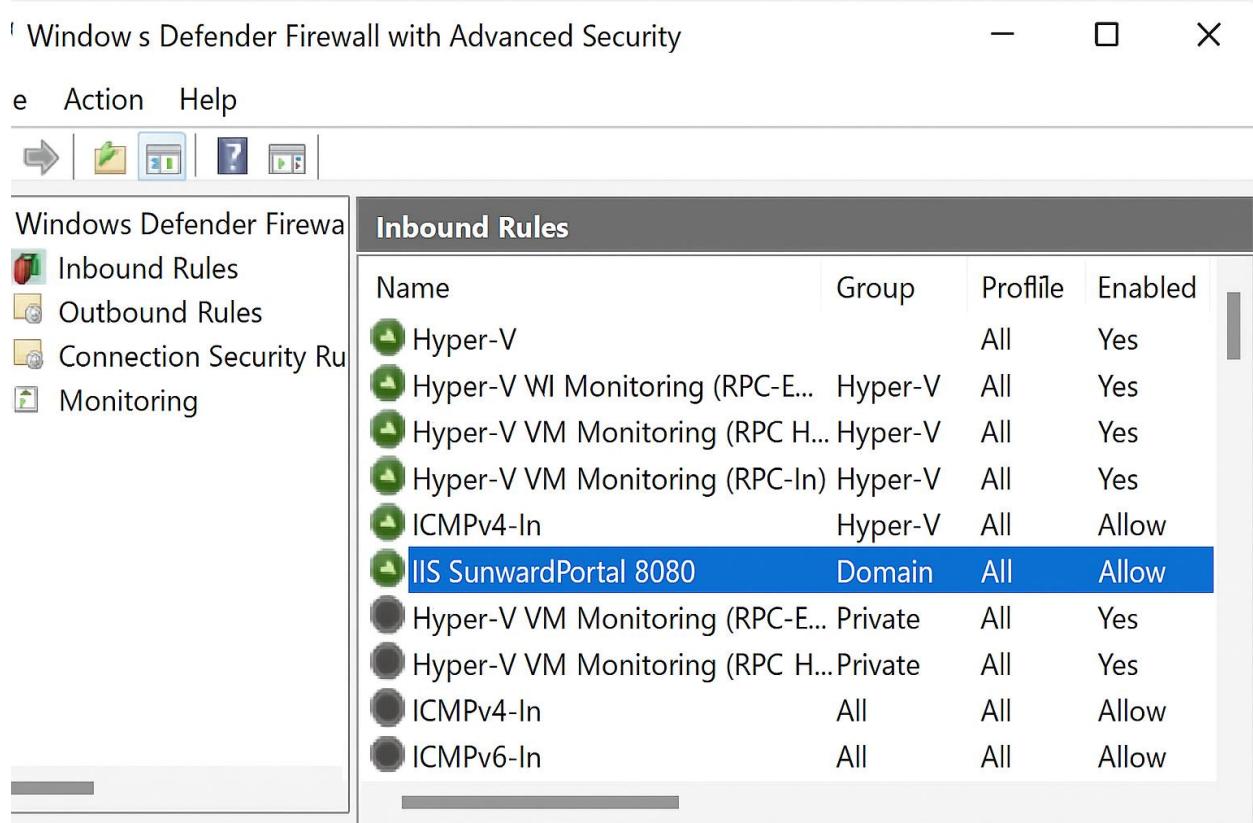
To change permissions, click Edit. To view the properties for a specific user or group, click Advanced.

Advanced

OK Cancel Apply

8. Application Settings & web.config (for ASP.NET / .NET Core)

1. Ensure `web.config` exists and has correct `processPath` & arguments for ASP.NET Core (if using ANCM module).
2. For connection strings or app settings, either put them in `appsettings.Production.json` or App Settings in Azure / environment variables. For IIS, you can set environment variables in system settings or in `web.config`.



9. Firewall / Network

1. Open port 8080 (or port used) on server firewall and network firewall.
2. Windows firewall example (PowerShell):

fig - Notepad

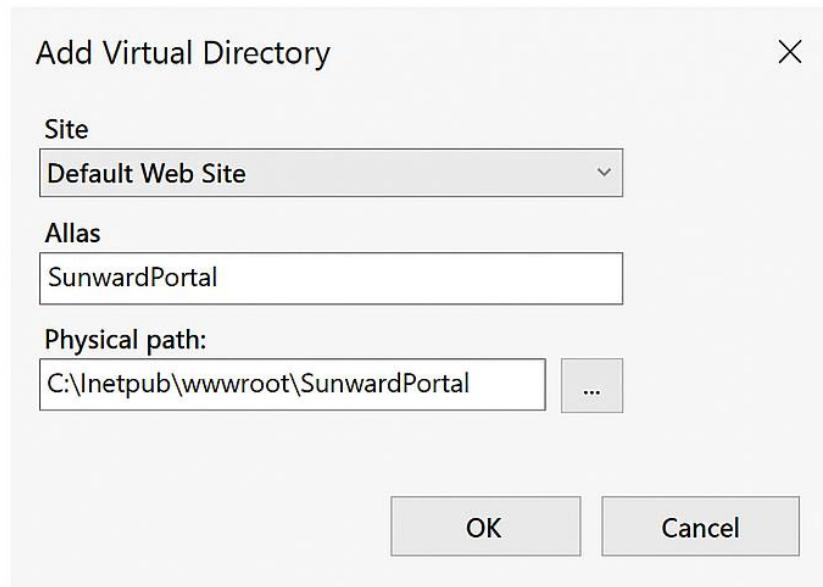
- □ ×

Format View Help

```
:Core>
)NetCore processPath=".\\SunwadPortal.exe" stdoutLogEnabled="false"
)outLogFile=".logs\\slogs\\stdout" hostingModel="inprocess">
vironmentVariables>
environmentVariable 'ASPNETCORE_ENVIRONMENT' value="Production" />
)inetCore>
)NetCore>
```

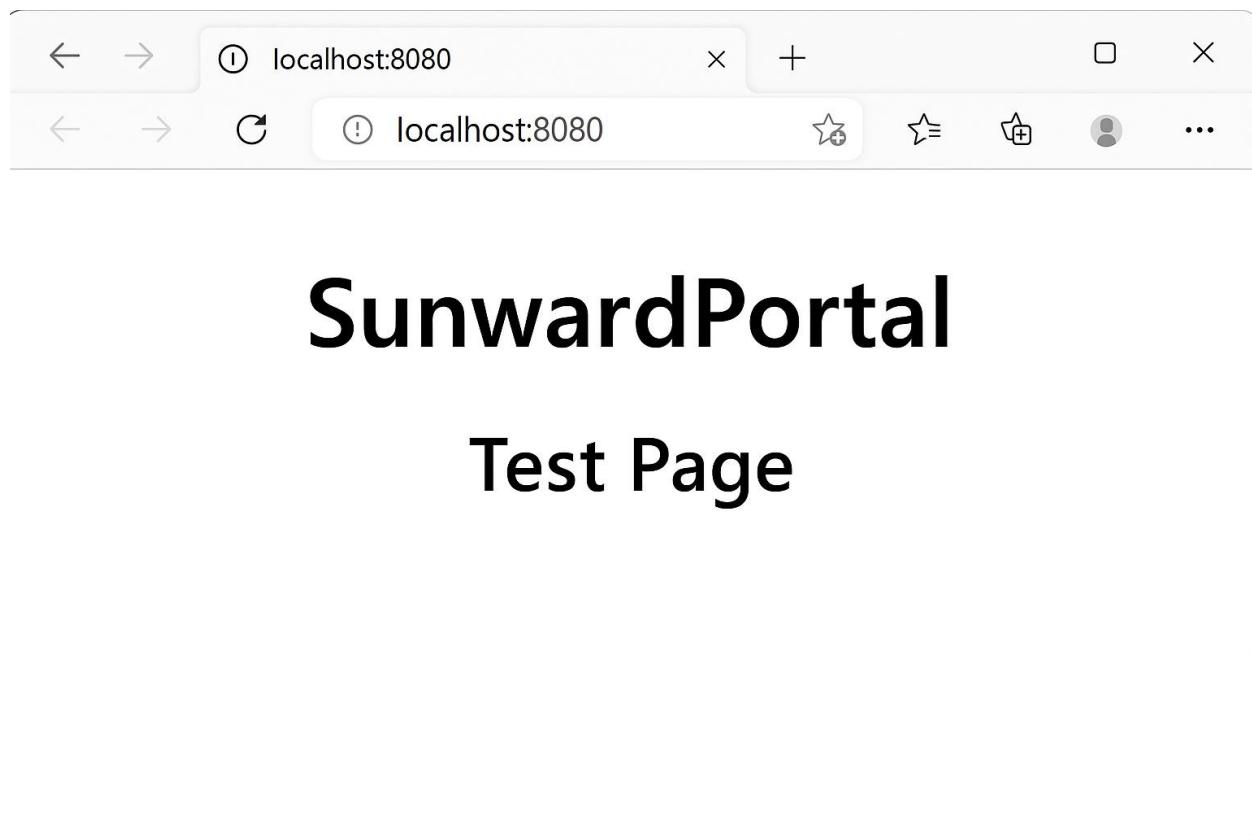


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10. Start / Restart & Smoke Test

1. In IIS Manager select site → **Start** (if not started) or **Restart**.
2. From server browser: `http://localhost:8080` (or `http://portal.example.com:8080`)
3. From remote machine: `http://portal.example.com:8080`
4. Check for expected home page and verify logs (Event Viewer or application logs).



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trator: Windows PowerShell

```
s/Administrator>.\deploy_sunward.ps1
```

ion Process

ory: C:\inetpub\wwwroot\SunwardPortal

LastWriteTime	Length	Name
4/10/2024 6:23 PM		SunwardPortal

ion Process

State	Applications

```
rlertalcdAppPool
```

te: (IIS Application Pool\SunwardPortalAppPool)
tion pool Initialized (No Managed Code)
plicationHost\Sites): Site initialized dk(#1)

ID	State	Physical Path	Bindings
---	-----	-----	-----

```
tal 1 Started C:\inetpub\wwwroot\SunwardPortal : p 8080 (http/1.1*)
```

ion Process

displayName	Enabled	Profile	Direction	Action
----	-----	-----	-----	-----

```
5 SunwardPortal 8080 True Any Inbound Allow
```

```
s/Administrator>
```

11. Common Issues & Troubleshooting

1. **HTTP 500** → check web.config and application logs. Turn on stdoutLog temporarily for ASP.NET Core.
2. **HTTP 502 (Bad Gateway)** → ANCM could not start .NET Core process — check event log.
3. **Permission denied errors** → re-check folder ACLs and app pool identity.
4. **Host name binding not working** → ensure DNS is properly pointed and port is open.
5. **SSL handshake error** → certificate mismatch, check CN/SAN and certificate chain.

12. Example PowerShell Script (all-in-one, adapt values)

