DOCUMENTATION MANUAL FOR IIS HTTP SERVER

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ACTIVATING INTERNET INFORMATION SERVICES (IIS)

To be able to host websites using the IIS Manager, we need to activate the IIS Manager Feature.

1.To activate, open the Control Panel and click "Programs". Under program Features click on "Turn Windows Features on or off" as shown below.

A pop-up window will appear showing all windows features.

2.You will then check the box beside the "Internet Information Services" and click ok. To finish activating the feature restart your PC and search for the IIS.
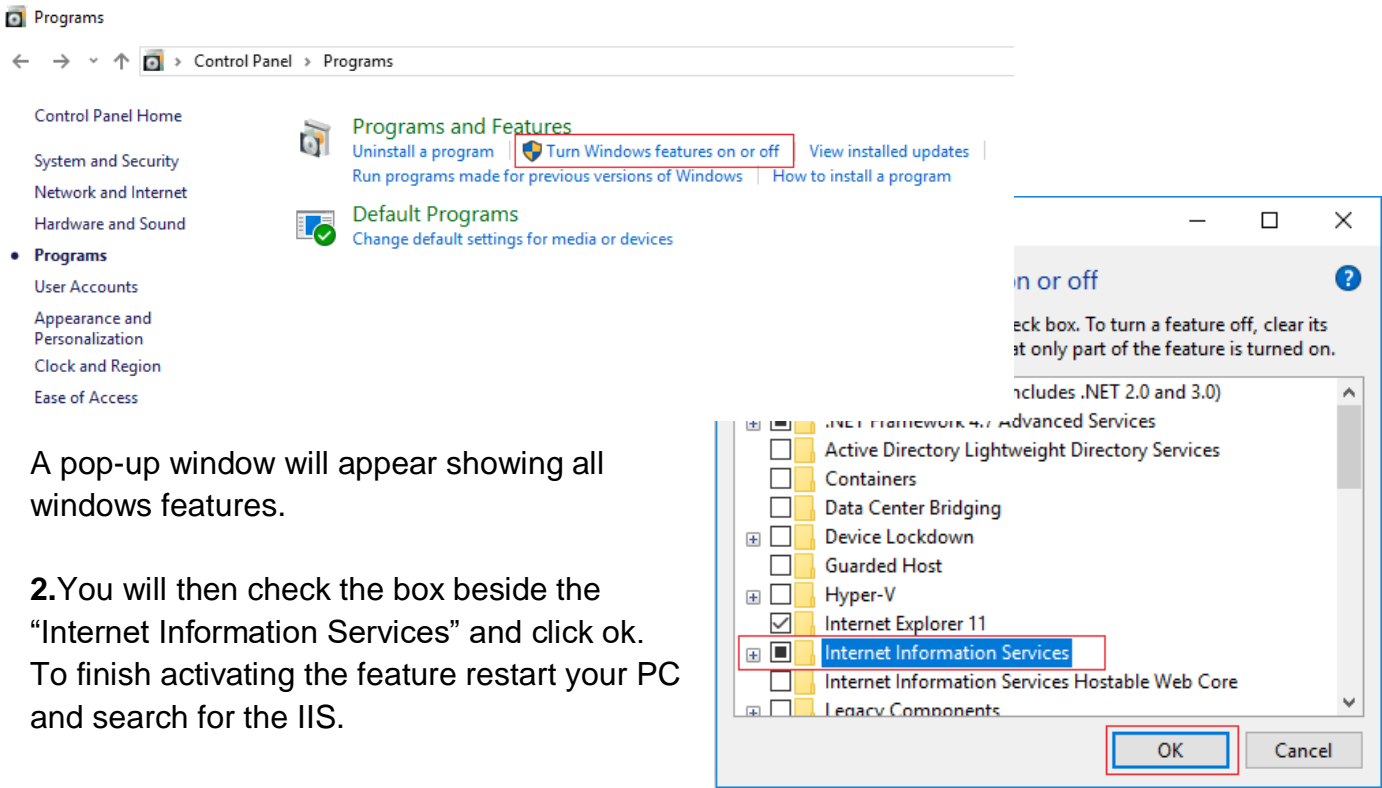
Figure 1.0 Activating IIS

CREATING VIRTUAL HOSTS

After activating the IIS feature, open the ISS to start hosting a website.
1.You can add a website to host in the Connections pane at the left side of the application. Click on the "+" button in the connections pain to expand its contents. Right-click on the sites folder and choose "Add Website" as shown below.
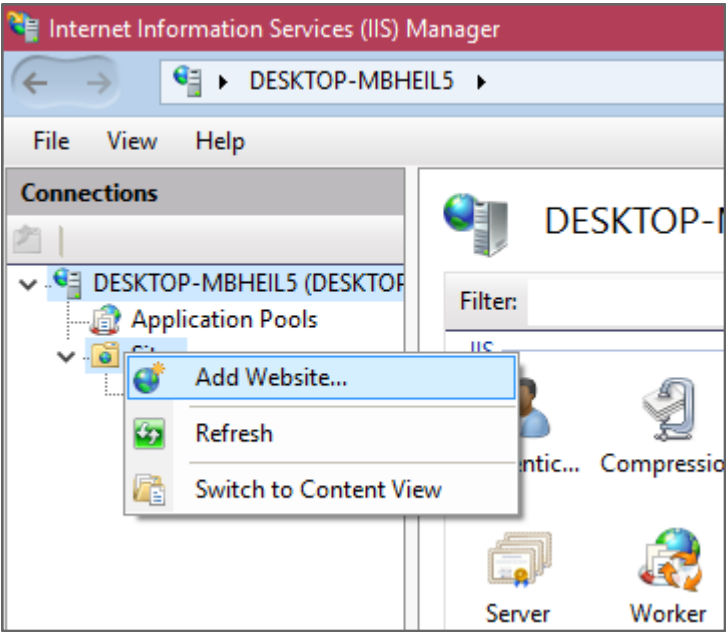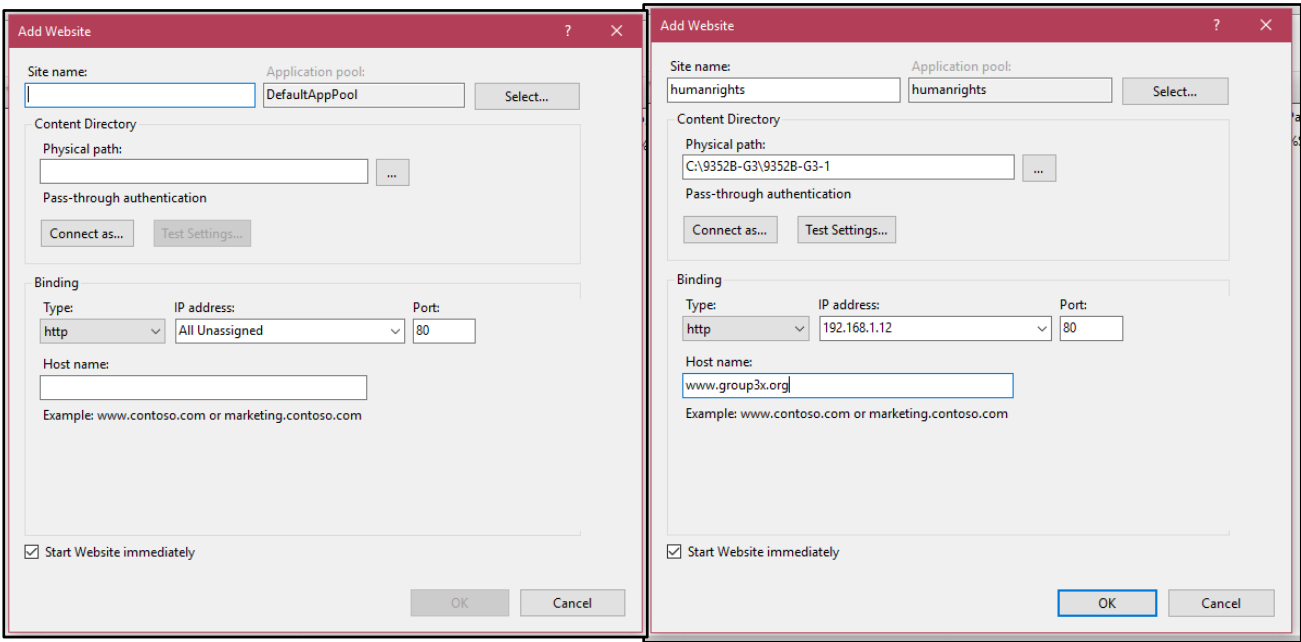
Figure 2.0 Adding website

2.A pop-up window will appear. You will need to fill in the needed information as

specified in the   window. Like so:

Figure 2.1 Entering information for the virtual host

*Note: To be able to host multiple websites with a single IP address, the IP address that you will be specifying should be the IP address of your computer. You can do this by running the Command prompt and entering the command **ipconfig:***

Figure 2.2 Determining the IP address of the host machine

3.To view the hosted website that you have just created, you have to modify the host file of your host machine first.

Add the following line/s to your host file:

<IP Address of the website to be hosted> <space> <Host Name>

Figure 2.3 Entering virtual host for client

Then to browse the website, just right-click on your website in the connections pane and click browse as so:

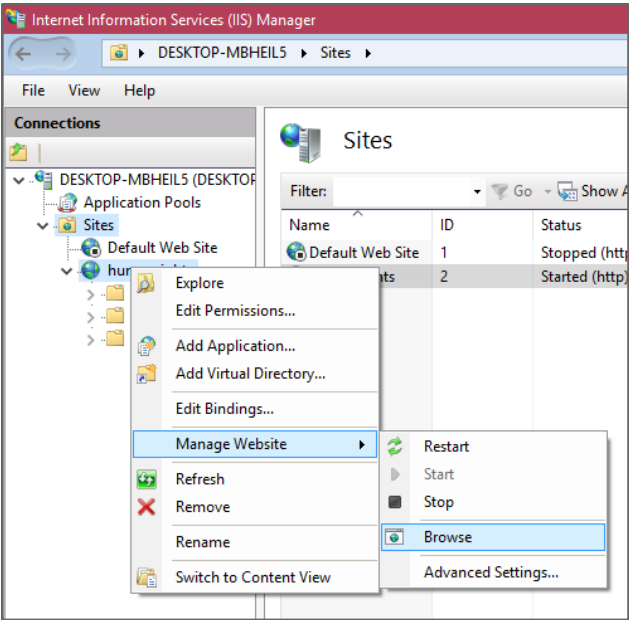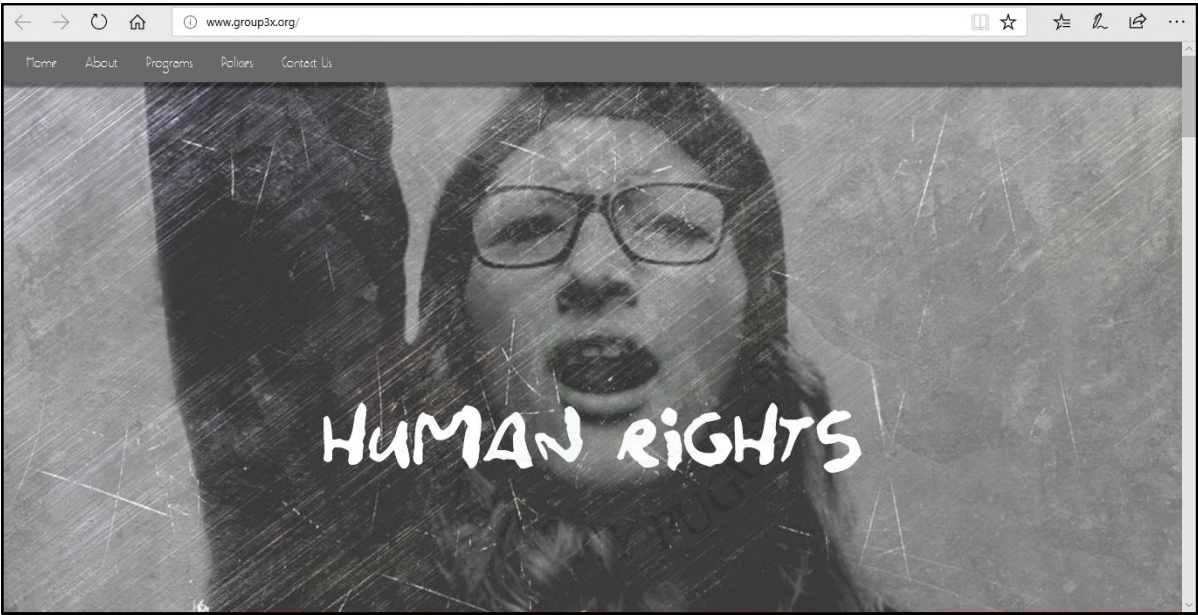*Figure 2.4 Accessing the website created*

CONTENT COMPRESSION

1.For the compression of the content for the client, just right click to open the features and you can see that there's a two content compression which is the dynamic and static.
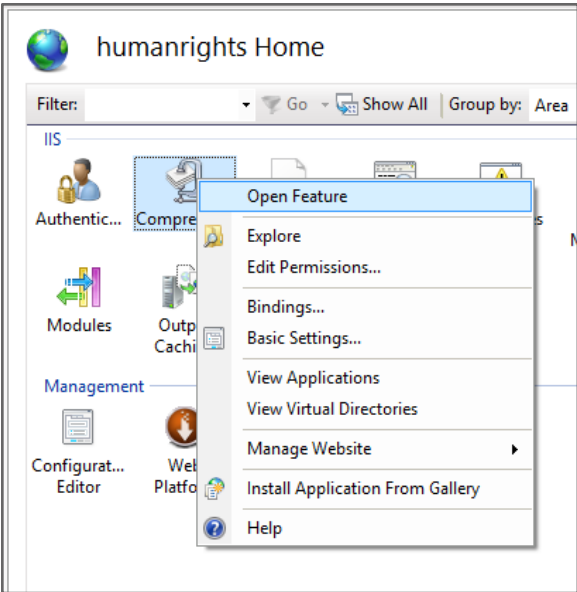
Figure 3.0 Opening the compression feature in IIS

2.Check the **Enable Static Content Compression** and click **Apply** to enable the static content compression.
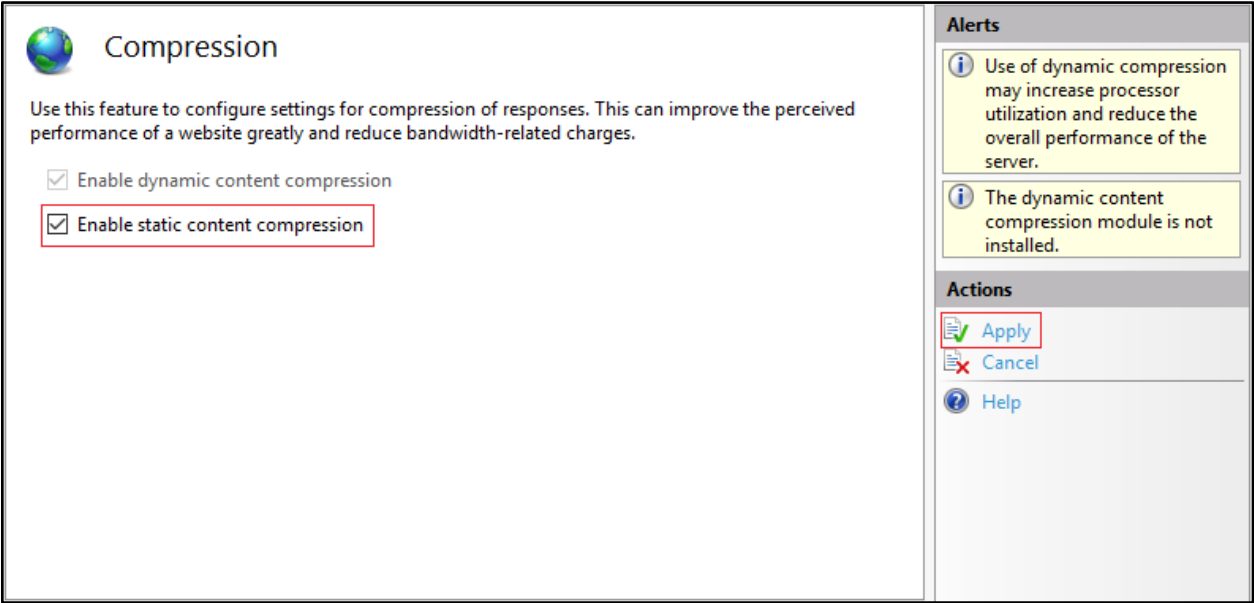

Figure 3.1 Enabling static content compression

3.A **web.config** file should appear in the document root of your html file. Check the web.config file to see the generated compression code. Refer to the image below.

```xml
<?xml version="1.0" encoding="UTF-8"?>
<configuration>
    <system.webServer>
        <urlCompression doStaticCompression="true" />
    </system.webServer>
</configuration>
```
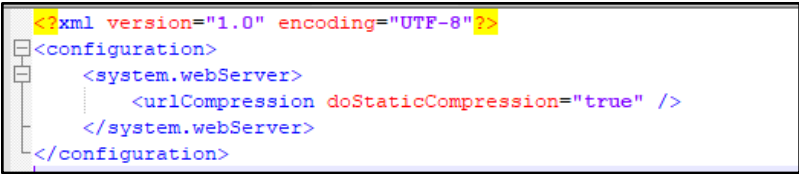
Figure 3.2 The web.config file

4.To enable compression only on "**.html**" and "**.css**" files then add the following on the **web.config** file:

```
<httpCompression directory="%SystemDrive%\inetpub\temp\IIS Temporary Compressed Files">
    <scheme name="gzip" dll="%Windir%\system32\inetsrv\gzip.dll" />
    <staticTypes>
        <add mimeType="text/html" enabled="true" />
        <add mimeType="text/css" enabled="true" />
    </staticTypes>
</httpCompression>
```

5.To check if the compression is working, press **F12** and click on **Network** then click on **Headers**. The **Content-Encoding** header value must be equal to **gzip** under the **Response headers**.
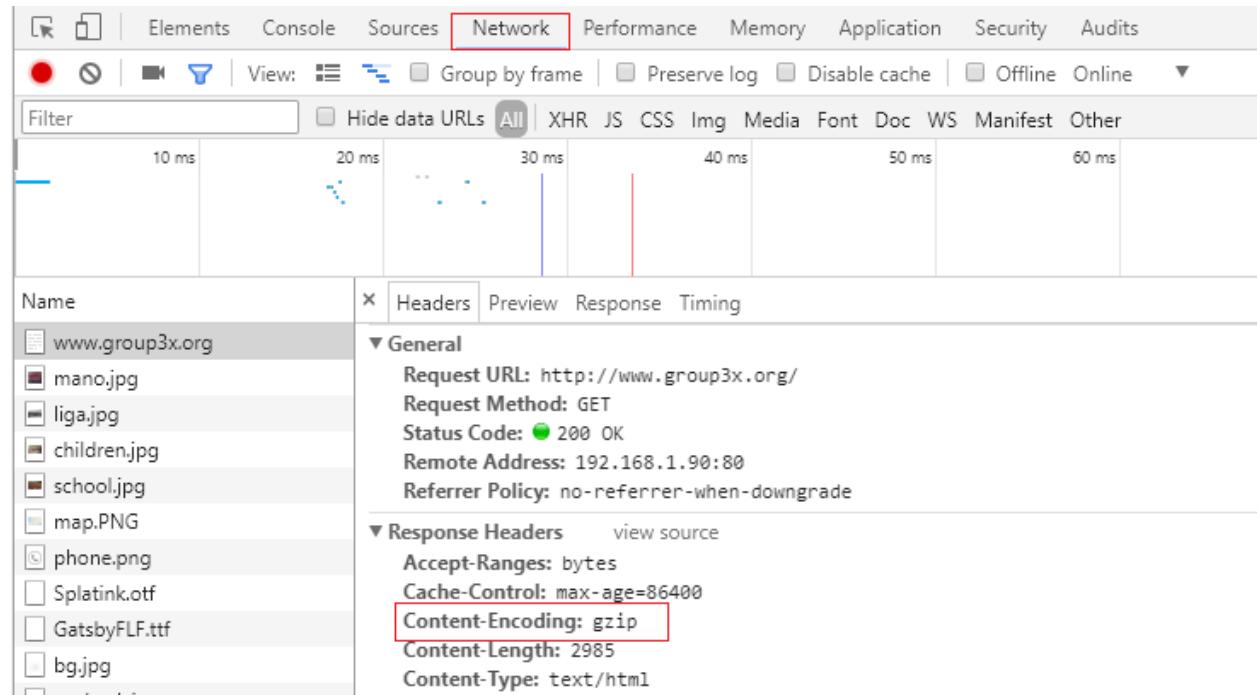

Figure 3.3 Checking if the compression works

CACHING

1.To cache images in both "**.html**" and "**.css**" files, open the **Output Caching** feature.
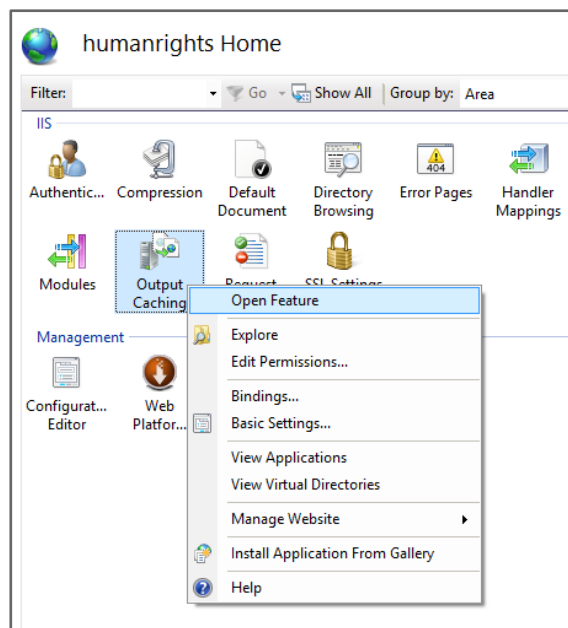

Figure 4.0 Opening the cache feature of IIS

2.After you open the feature you can see that there are no specific file name extension's to be cached. You can add file extensions that you'd like to cache by clicking on the **Add** button at the **Actions** pane found at the right side of the window. See the figure 1.1.
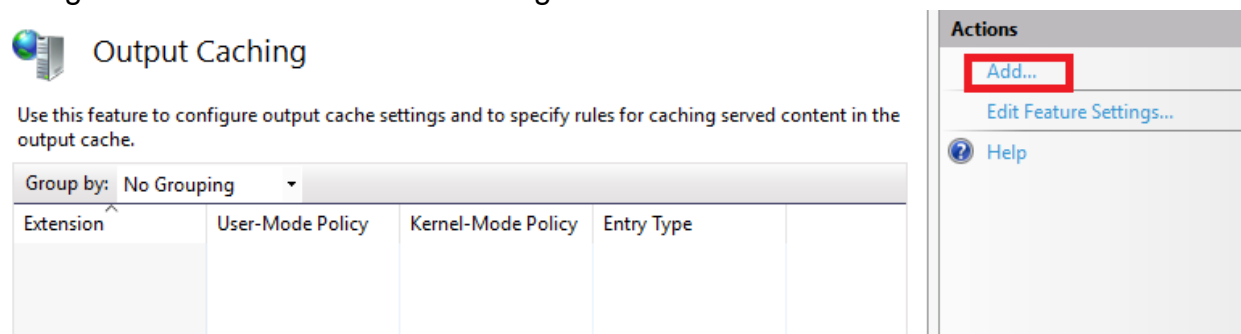
Figure 4.1 Adding filename extensions to be cached

3. A pop-up window will appear asking for the following(**See figure 4.3**) and fill in the required information(**See figure 4.4**) then press **OK**:
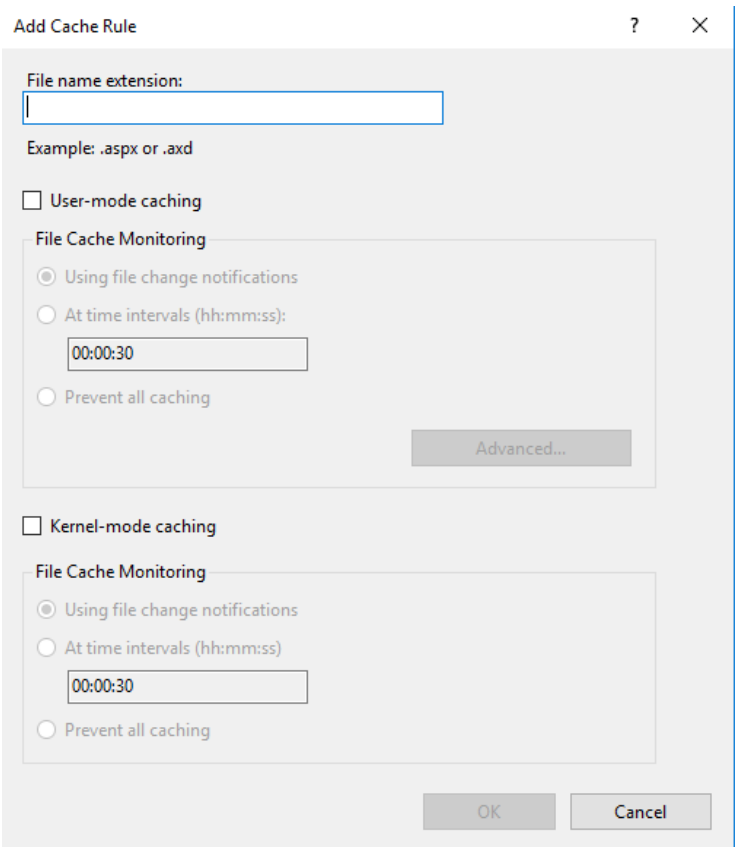

Figure 4.2 Adding necessary information for caching

Do the same process to the other filename extensions namely, ".png" and ".gif".

Figure 4.3 The added extensions to be cached

You will then see the following(**See figure 4.4**) in the web.config:

```
<caching>
    <profiles>
        <add extension=".gif" policy="DontCache" kernelCachePolicy="CacheForTimePeriod" duration="1.00:00:00" />
        <add extension=".jpg" policy="DontCache" kernelCachePolicy="CacheForTimePeriod" duration="1.00:00:00" />
        <add extension=".png" policy="DontCache" kernelCachePolicy="CacheForTimePeriod" duration="1.00:00:00" />
    </profiles>
</caching>
```

Figure 4.4 The web.config file

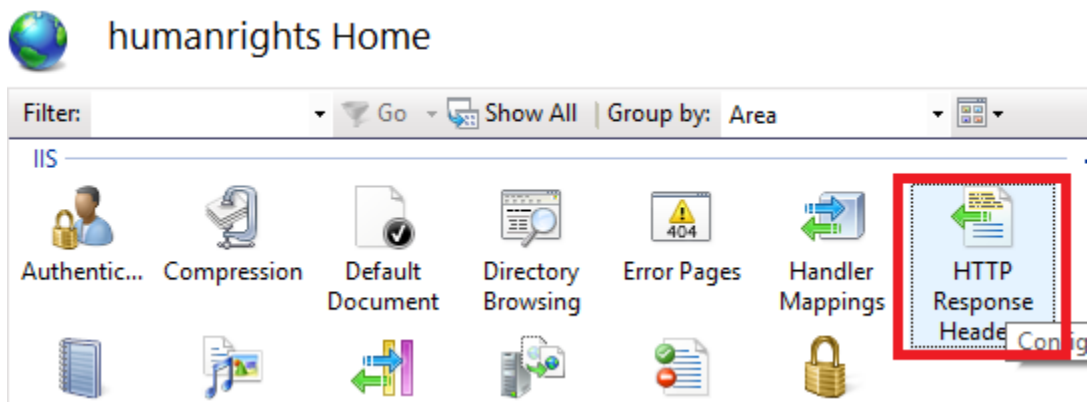4. Then open the HTTP Response Headers feature.

Figure 4.5 Open HTTP response header feature

5. After you have open the feature, click on **Set Common Headers** button at the right side of the window.
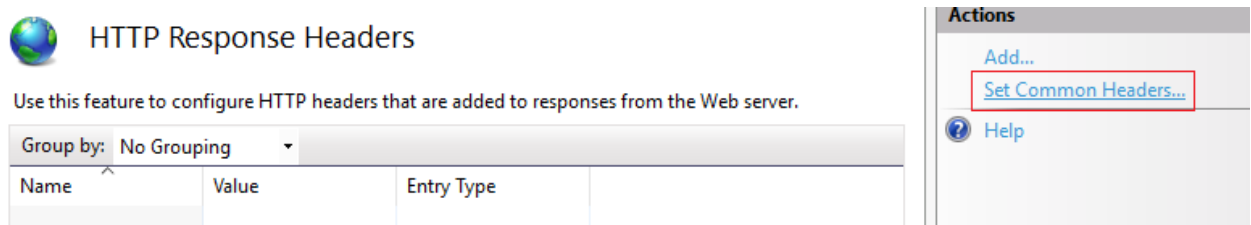

Figure 4.6 Setting common headers

6.A pop-up window will appear and you will check **Expire Web Content** checkbox and choose the **After** radio button then set the values to **1 Day**(**See figure 4.9**). Then click **OK.**
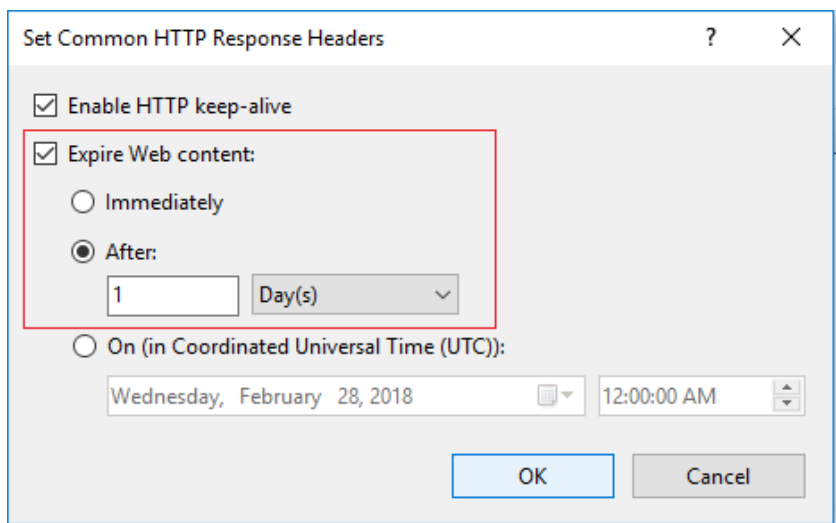

Figure 4.7 Setting up time for cache expiration date

7.To see if the configurations are working, start your website. After that stop the hosting of that particular website (**See figure 4.10)** and refresh your website in the browser and your website should still look the same. Press F12 and and Click on Network, you should see that the images are cached.**(4.11)**.
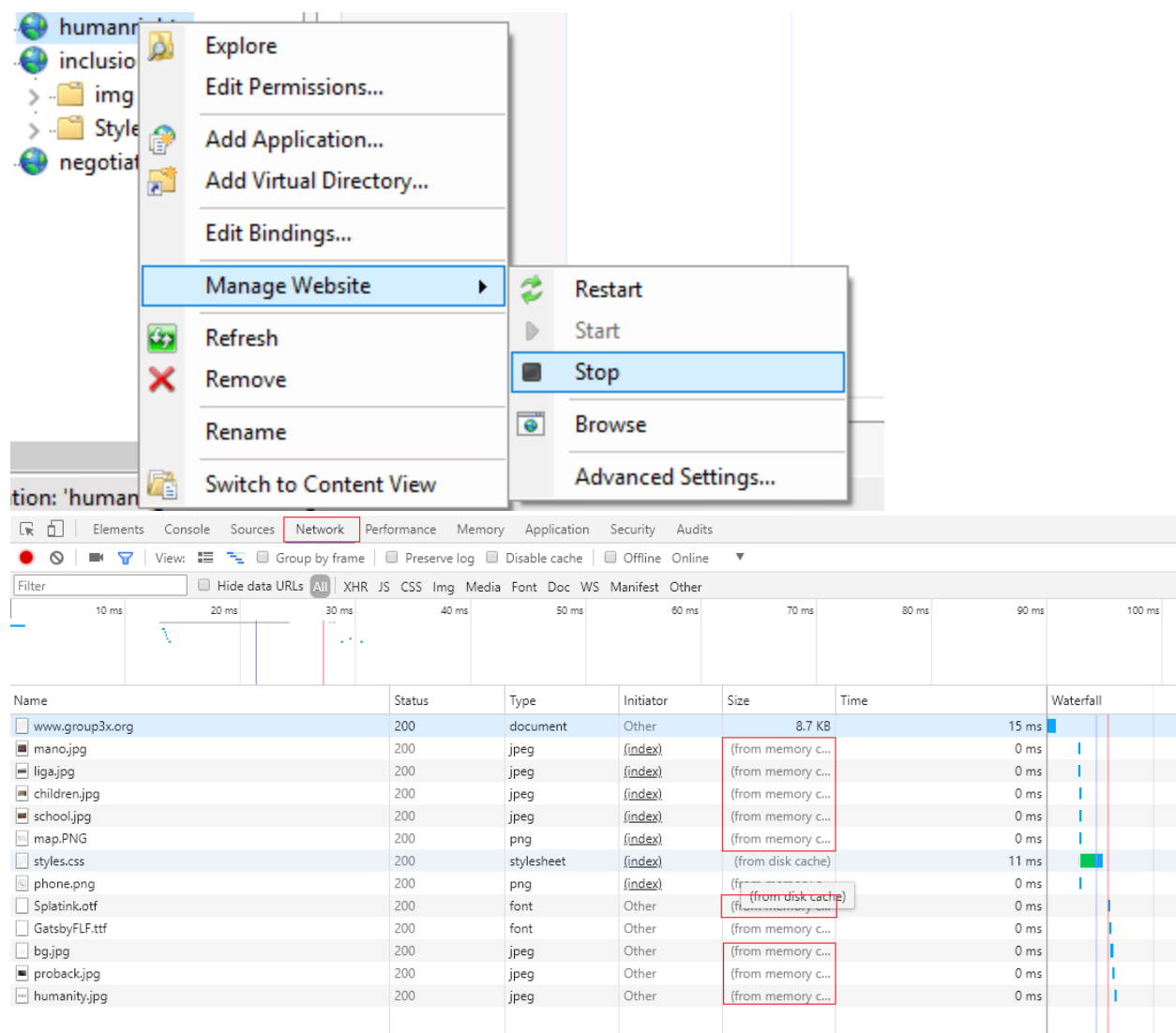
Figure 4.8 Checking if the website is cached

Server-Side Includes

1. First, create your working folder for the SSI.
2. Open the IIS application and add a website named (webtech2.ssi.org).Follow the steps in "CREATING VIRTUAL HOSTS" mentioned above. See pages 1-3.
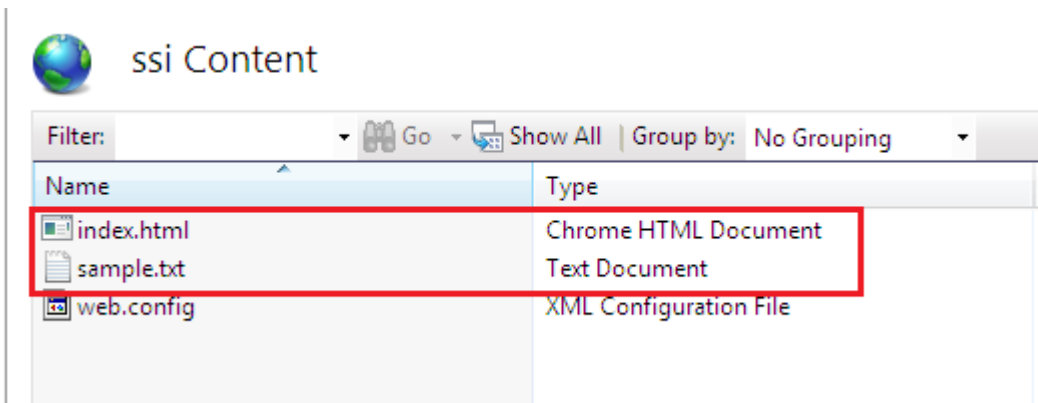3. Add two dummy files in the created folder in step 1.

Figure 5.0 Creating dummy files

4. In the "index.html", add the following code to display the content of "sample.txt". Refer to the image below:
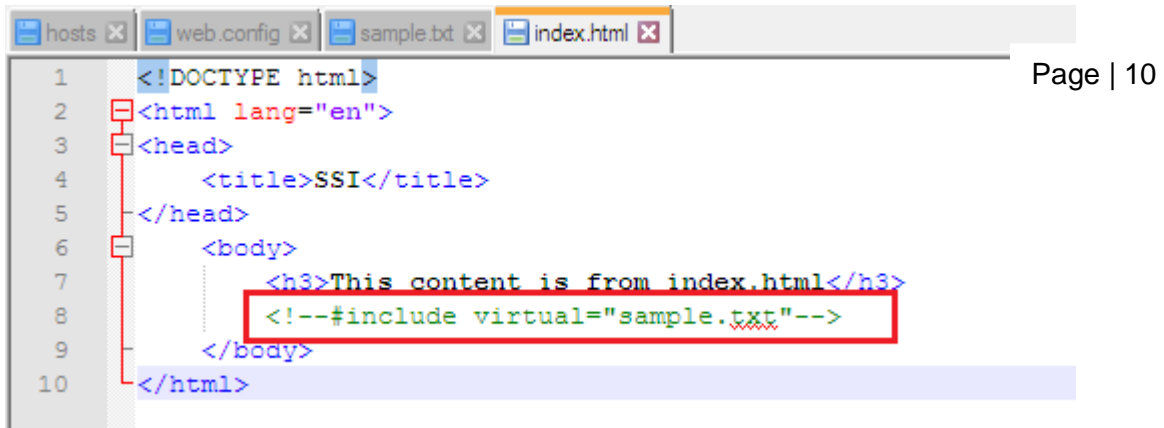
Figure 5.1 Adding necessary code for SSI

The <!--#include virtual="sample.txt"--> is essential because it is the command that calls the sample.txt to the html file.

4. Finally, access your website in the IIS application to test if the SSI is working. The content of "sample.txt" must be seen in "index.html". Refer to the image below:

Figure 5.2 Checking if the SSI is working