4.6 Deploy App to production Using Docker



This section will guide you to:

* Download a sample .NET APP test and deploy locally to a Windows Docker container which is used for production.

**Development Environment**

* Windows
* Docker

This guide has four subsections, namely:

4.6.1 Downloading a sample .NET APP

4.6.2 Testing and deploying locally

4.6.3 Deploying it to a Windows Docker container which is used for production

4.6.4 Pushing the code to GitHub repositories

**Step 4.6.1:** Downloading a sample .NET APP

* Go to the Windows command prompt
* Type the following git command to download the sample .net app: git clone [*https://github.com/dotnet/dotnet-docker*](https://github.com/dotnet/dotnet-docker)

**Step 4.6.2:** Testing and deploying locally

* Using the command prompt go to the following folder within the downloaded project: *dotnet-docker/samples/aspnetapp/aspnetapp*.
* Type *dotnet run* to build the app.
* In the default browser open the webapp at [*http://localhost:5000*](http://localhost:5000)

**Step 4.6.3:** Deploying it to a Windows Docker container which is used for production

* Set the default container type to Windows for the Docker installation
* In Powershell command prompt go to the folder dotnet-docker/samples/aspnetapp using the following command:

*cd dotnet-docker/samples/aspnetapp*

* To build the webapp in Docker container, use the following command:

*docker run --name aspnet\_sample --rm -it -p 8000:80 mcr.microsoft.com/dotnet/framework/samples:aspnetapp*

* We now need the IP address of the docker container to run the app from the docker node. For that type

*docker exec aspnet\_sample ipconfig*

* This will display the network information of that container. Look for the IP address for **IPV4 Address**.
* Use the IP address to run the webapp on the docker node. Open the browser and paste the IP address, hit enter.

**Step 4.6.4:** Pushing the code to your GitHub repositories

Open your command prompt and navigate to the folder where you have created your files.

cd <folder path>

Initialize your repository using the following command:

git init

Add all the files to your git repository using the following command:

git add .

Commit the changes using the following command:

git commit -m “Changes have been committed.”

Push the files to the folder you created initially using the following command:

it push -u origin master