

**Lab Manual- Container sample: Build and Run a Dotnet web application with Azure Container Instance (ACI)**

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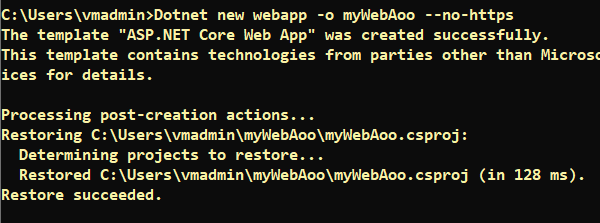
# Objective

Creating a Docker image for a simple .NET Core web application involves a few steps. Below is a basic example of creating a Docker image for a simple .NET Core web application, Publish on Docker hub and Pull this image in Azure Container Instance. Make sure you have Docker and .NET Core installed on your system.

# Create a Simple .NET Core Web Application:

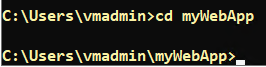
* Run Following command to create webapp

Dotnet new webapp -o myWebApp –-no-https



* Go Inside myWebApp directory

Cd myWebApp

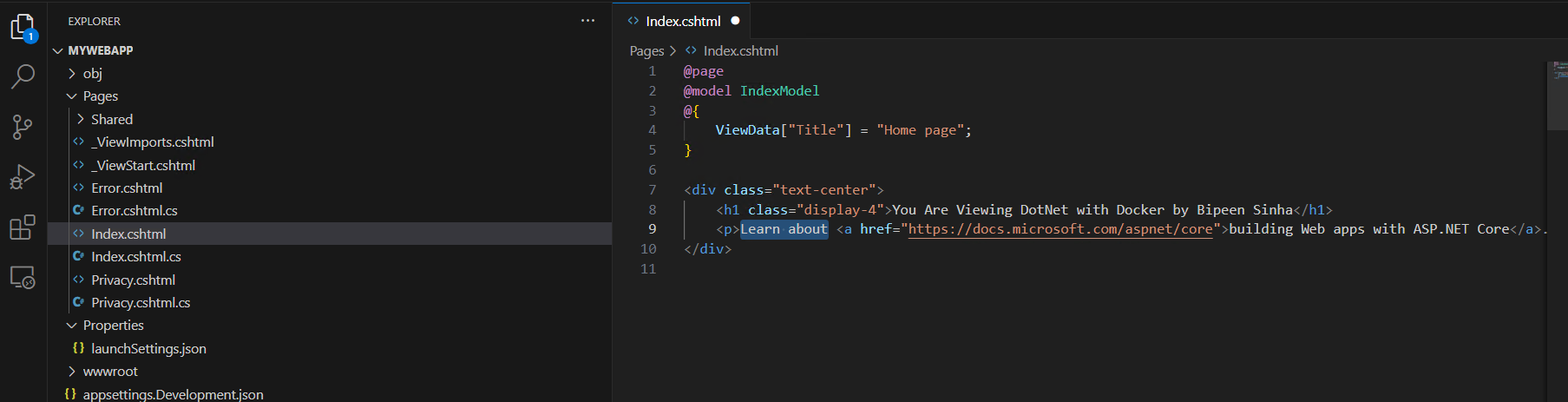


* Type Code . to open the project in VSCode

code .

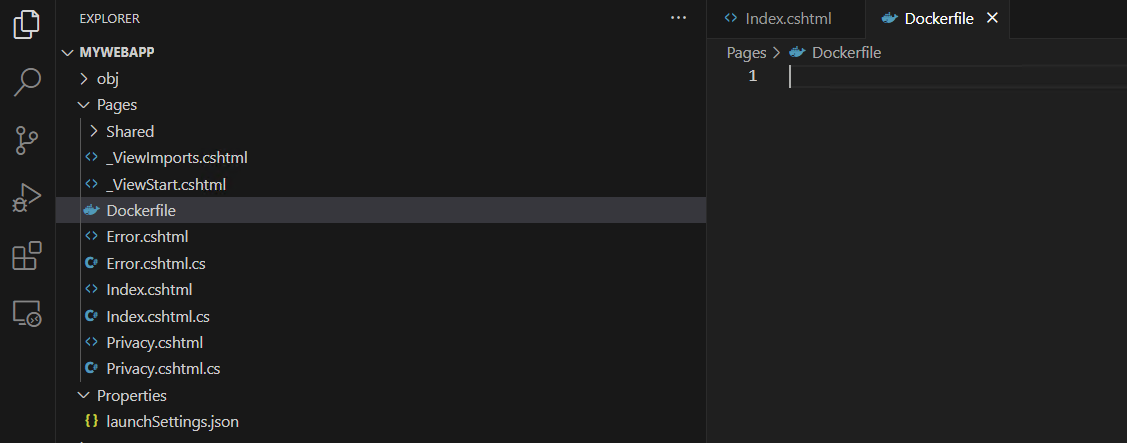


* Make the changes in index.chtml under **Pages** Directory and **Save**



# Create a Dockerfile:

* Create a file named Dockerfile (without any file extension) in the same directory as your project. Add the following content to the Dockerfile:



Type below lines in Dockerfile

FROM mcr.microsoft.com/dotnet/sdk:7.0 as build

WORKDIR /app

# Copy csproj and restore as distinct layers

COPY \*.csproj ./

RUN dotnet restore

# Copy everything else and build

COPY . ./

RUN dotnet publish -c Release -o out

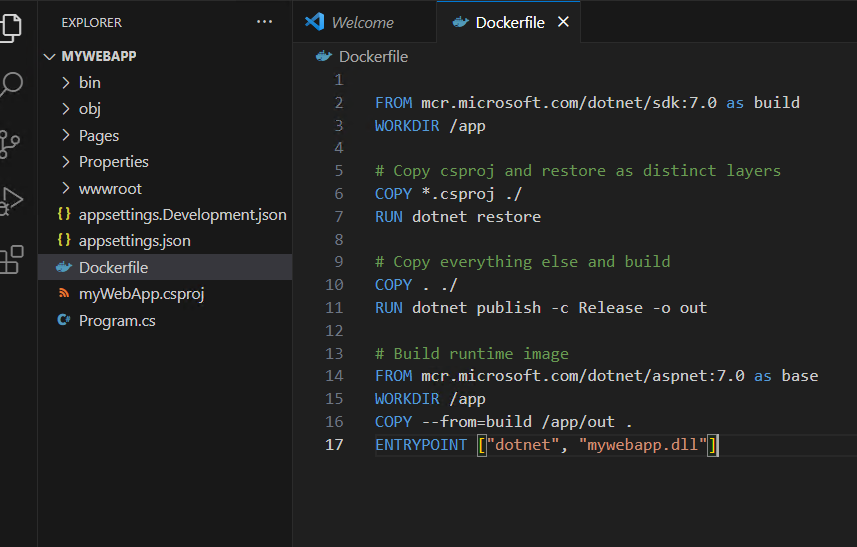
# Build runtime image

FROM mcr.microsoft.com/dotnet/aspnet:7.0 as base

WORKDIR /app

COPY --from=build /app/out .

ENTRYPOINT ["dotnet", "mywebapp.dll"]

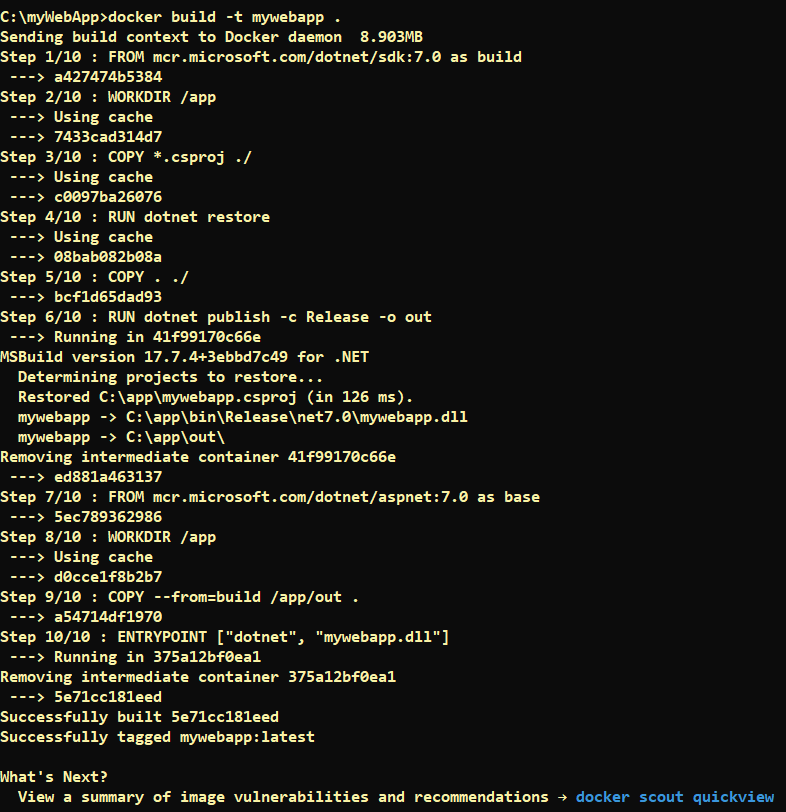


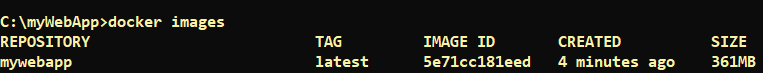
# Build the Docker Image:

* Open a terminal and navigate to the directory containing your Dockerfile. Run the following command to build the Docker image:

docker build -t mywebapp .

This command builds an image with the tag **mywebapp**.

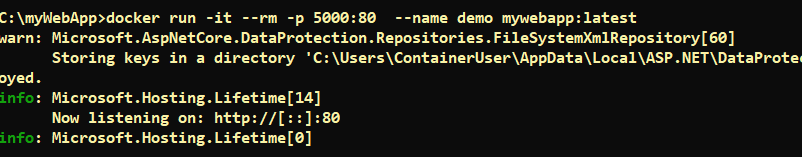




# Run the Docker Container:

Once the image is built, you can run a container based on that image:

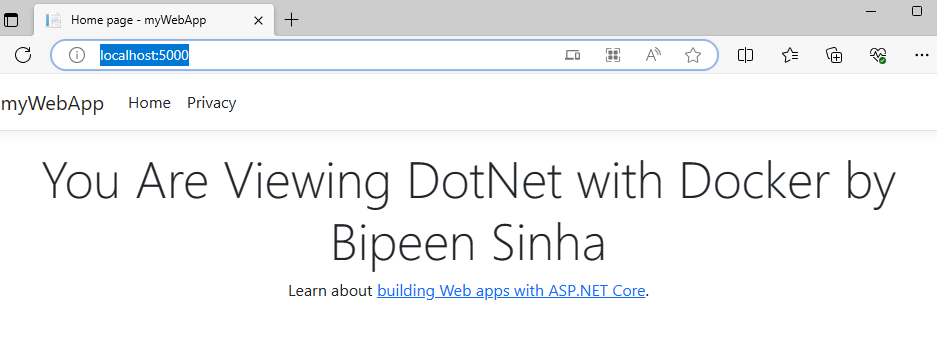
docker run -it --rm -p 5000:80 --name demo mywebapp:latest



# Test the Application running in Docker Container:

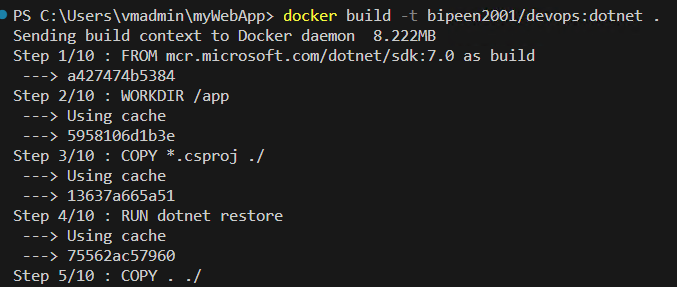
Launch the webapp by typing below in browser

http://localhost:5000/

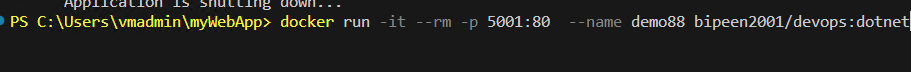


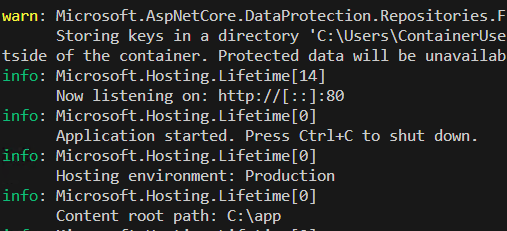
# Build Own Image for Docker Hub

docker build -t bipeen2001/devops:dotnet .

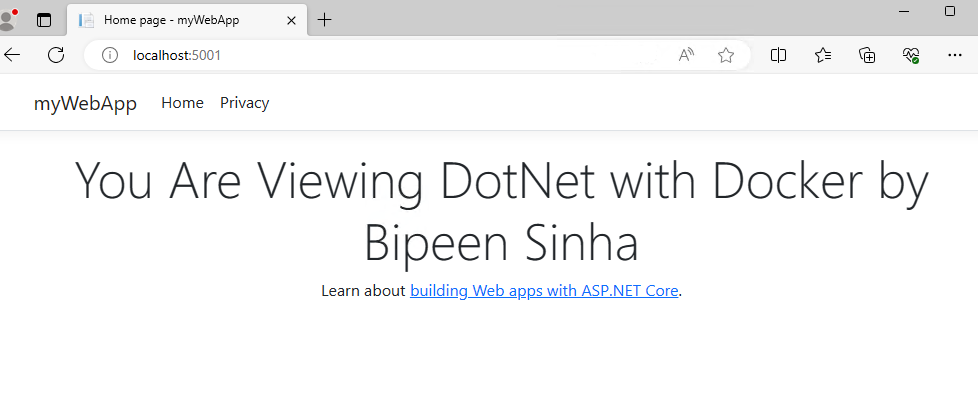


docker run -it --rm -p 5001:80 --name demo88 bipeen2001/devops:dotnet

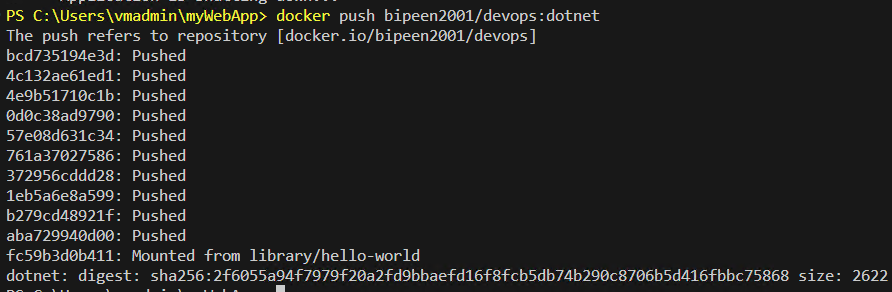


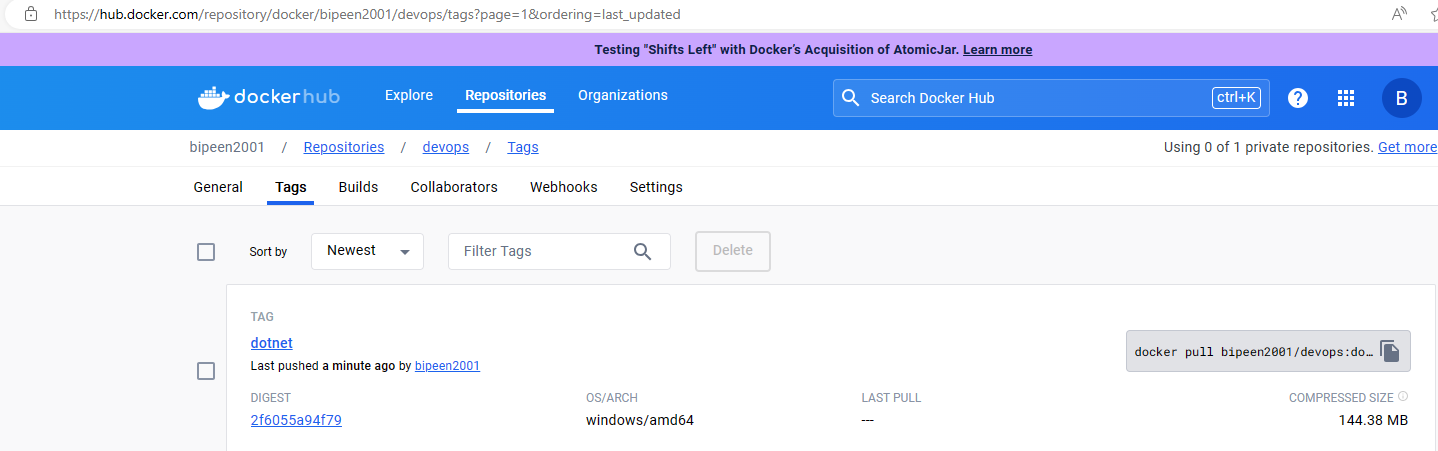


**http://localhost:5001/**

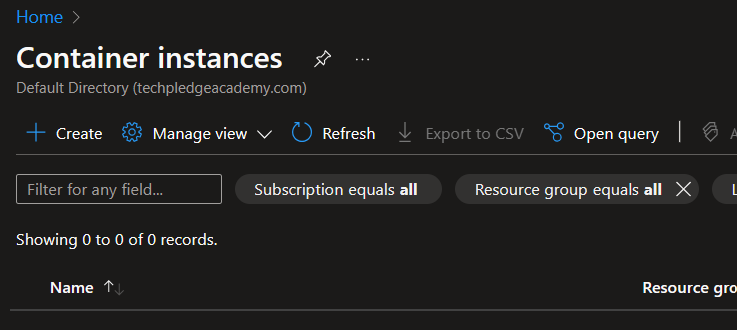


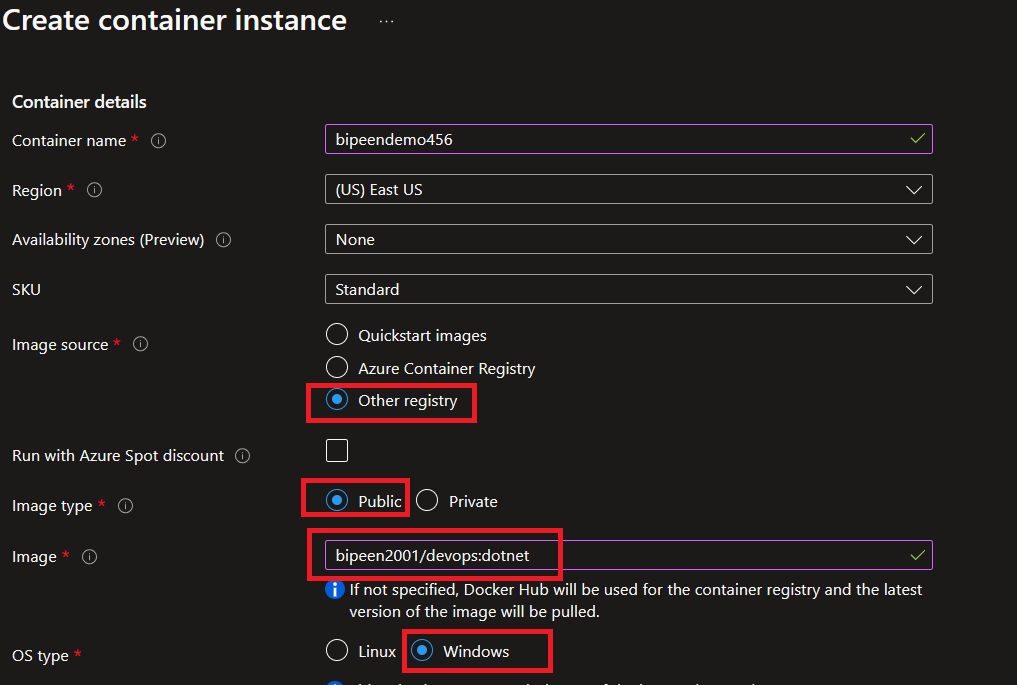
docker push bipeen2001/devops:dotnet

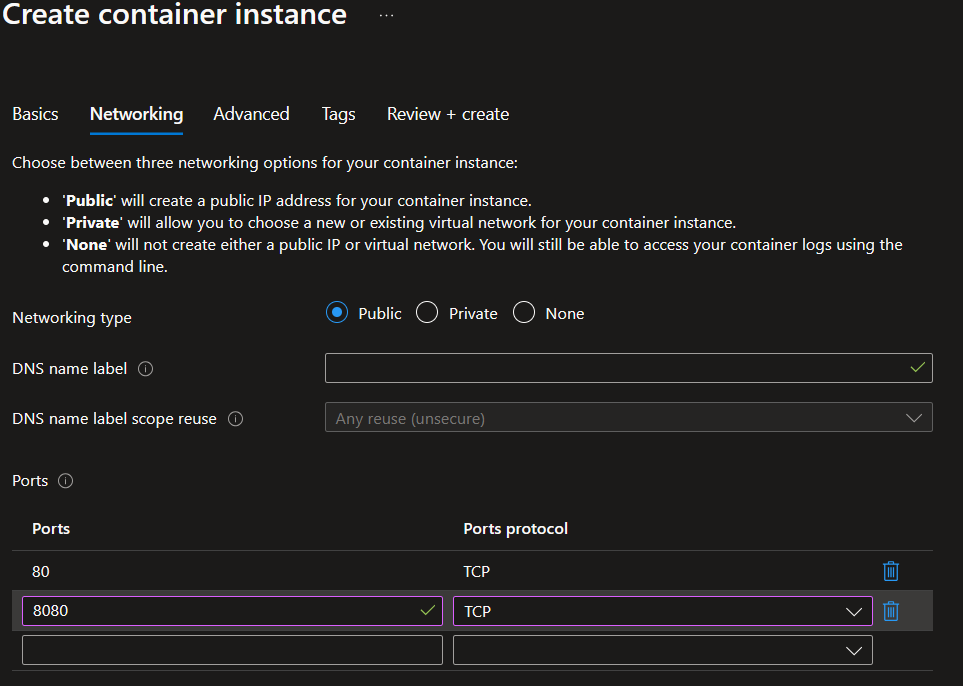


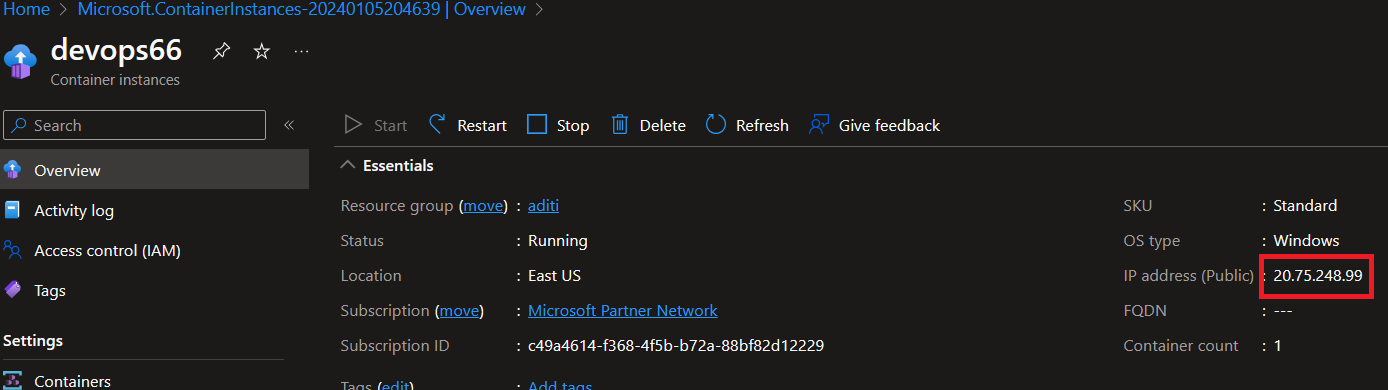


# Create Azure Container Instance









<http://20.75.248.99/>

