4.3 Push an Image to Docker Hub



This section will guide you to:

* Create and run the Docker file with the steps to deploy and push the image with tag and run it as a container, in Windows 10 operating system.

**Development Environment**

* Windows
* Docker

This guide has six subsections, namely:

4.3.1 Setting up Docker Desktop in Windows

4.3.2 Creating an Account on Docker Hub

4.3.3 Creating and tagging an image

4.3.4 Running the tagged the image

4.3.5 Pushing the Image with a tag

4.3.6 Pushing the code to GitHub repositories

**Step 4.3.1:** Setting up Docker Desktop in Windows

* Docker is already installed in your practice lab. Refer to **DotNet Lab guide: Phase 4** for more information.
* To test the installation, open the Windows Command Prompt and type *docker –version*
* This will show the installed version of Docker

**Step 4.2.2:** Creating an Account on Docker Hub

* You can skip to the next step (Step 4.2.3), if you already have a docker id and an account on Docker Hub.
* Open your browser and go to <https://hub.docker.com/signup>
* Provide a unique docker id and other necessary details. Store the docker id.
* Click on the sign up button and fill in the given fields, and click on create.
* Verify the email address using the verification link sent to your email address.

**Step 4.2.3:** Creating and tagging an image

* Open windows powershell and type in the following command:

*"FROM mcr.microsoft.com/windows/servercore:ltsc2016 `n CMD echo Hello World!" | docker build -t yourdockerid/helloworld -*

**Note:** Replace ‘yourdockerid’ with your actual docker id that you had created in the previous step.

* Check if the image has been tagged or not using the following command in the windows powershell:

*docker images*

* If the image has been tagged, it will be listed in the images list

**Step 4.2.4:** Running the tagged the image

* Run the following command in the windows powershell:

*docker run micky3321/helloworld*

* Hello World! will be displayed when you run the image

**Step 4.3.5:** Pushing the Image with a tag

* Run the following command in the Powershell to login to your Docker Hub

*docker login -u “yourdockerid” -p “yourpassword” docker.io*

**Note**: Replace ‘yourdockerid’ and ‘yourpassword’ with your actual docker id and actual password for docker hub account respectively.

* Push the image to Docker Hub using the following command in Powershell

*docker image push yourdockerid/helloworld*

**Note:** Replace *dockerid* with your actual id on Docker Hub

**Step 4.3.6:** 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:

git push -u origin master