NET2008 - Fall 2022 - Assignment 4

Step 1:

Develop any Python application you like, There are no restriction on what you can create. For ideas you can visit these links:

1. https://mindmajix.com/python-projects (https://mindmajix.com/python-projects)
2. https://www.freecodecamp.org/news/python-projects-for-beginners/ (https://www.freecodecamp.org/news/python-projects-for-beginners/)

Step 2:

Make sure your application works on your computer.

Next, create a docker image for your application.

Resures for creating docker image:

1. https://docs.docker.com/language/python/build-images/ (https://docs.docker.com/language/python/build-images/)
2. https://www.youtube.com/watch?v=0UG2x2iWerk (https://www.youtube.com/watch?v=0UG2x2iWerk)
3. https://runnable.com/docker/python/dockerize-your-python-application (https://runnable.com/docker/python/dockerize-your-python-application)

Run your application through docker on your computer.

Step 3:

Create a free acount on docker hub. Visit this link to create docker hub account:

https://hub.docker.com/signup (https://hub.docker.com/signup)

Upload your local Docker Image of your application to docker hub.

Resources for uploading docker image to docker hub:

1. [https://www.techrepublic.com/article/how-to-build-a-docker-image-and-upload-it-to-docker-hub/ (https://www.techrepublic.com/article/how-to-build-a-docker-image-and-upload-it-to-docker-hub/)](https://www.techrepublic.com/article/how-to-build-a-docker-image-and-upload-it-to-docker-hub/)
2. [https://medium.com/codex/push-docker-image-to-docker-hub-acc978c76ad (https://medium.com/codex/push-docker-image-to-docker-hub-acc978c76ad)](https://medium.com/codex/push-docker-image-to-docker-hub-acc978c76ad)
3. [https://docs.docker.com/docker-hub/repos/#:~:text=To%20push%20an%20image%20to,docs%2Fbase%3Atesting%20 (https://docs.docker.com/docker-hub/repos/#:~:text=To%20push%20an%20image%20to,docs%2Fbase%3Atesting%20)](https://docs.docker.com/docker-hub/repos/#:~:text=To%20push%20an%20image%20to,docs%2Fbase%3Atesting%20)).

Step 4:

Create a text file and rename it to *README.txt*

Your README.txt file should have following details:

1. Short description of your app like what is it about, how can I run your app etc.
2. URL to your GitHub repository.
3. URL to your Docker Hub Image (You can get this from your docker hub account after you upload your image)

Create a GitHub repository (Public) and upload your *Python app files*, *Dockerfile*, *README.txt* file.

Submission

Create a Zip file which contains your Python App, Dockerfile and README.txt, Rename your zip file as *username-assignment4.zip* and submit your zip file.

NOTES:

1. Eventhough there are no restrictions on what you can create with Python, I will not consider simple "Hello World!" apps or one line print statement.
2. Your README.txt file *must* contain URL for your GitHub repo and Docker Hub repo.

Additional Resources

1. [https://docs.python.org/3/ (https://docs.python.org/3/)](https://docs.python.org/3/)
2. [https://docs.docker.com/ (https://docs.docker.com/)](https://docs.docker.com/)

3. https://www.freecodecamp.org/news/git-and-github-for-beginners/
(https://www.freecodecamp.org/news/git-and-github-for-beginners/)