

Tutorial of Dockerized App Registration on OpenNEX

0: Download prepared python-equipped docker container

#Pull docker to local machine

```
docker pull cmusvsc/opennex-python
```

1. Install docker

2.Run docker

```
docker run -it cmusvsc/opennex-python /bin/bash
```

You will see something as follows, which means you have entered the docker container:

```
root@05c1e43d5a42:/home....
```

3. Install environment and code in the docker container as if you are in a local Ubuntu environment.

4. Prepare a script that can auto start your docker container:

4.1 Install a text editor (such as vim):

```
apt-get install vim
```

4.2 Edit the auto starter script:

```
vim /root/.bashrc
```

4.3 Enter your bash command lines for automatically kick-start upon docker launch in the future.

E.g. If you need to automatically start Mysql once the docker is running, append the following code into the .bashrc file:

```
'service mysql start'
```

4.4 Save the .bashrc file.

5. Enter 'exit' to stop your current docker container.

6. Find id of your docker container:

6.1 List all closed docker processes:

```
sudo docker ps -a
```

You will get a list of closed docker processes as shown below:

2454a17aee0c	qihaobao/envjava:fall2017	"/bin/bash"	23 hours ago	Exited (0) 3 seconds ago
0b987f725cdf	qihaobao/envjava:fall2017	"/bin/bash"	23 hours ago	Exited (0) 23 hours ago
suspicious_euler				
3e1b3fb846e8	qihaobao/envjava:fall2017	"/bin/bash"	23 hours ago	Exited (0) 23 hours ago
sleepy_hugle				

6.2 Pick up the id of the docker processes with the latest timestamp.

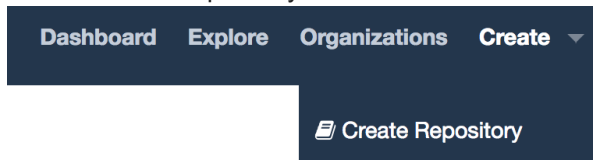
E.g., "2454a17aee0c" refers to your prepared docker id since it is timestamped 3 seconds ago.

7. Upload your filled docker container to docker hub:

7.1 Create your own docker hub repository:

7.1.1 Go to docker hub (<https://hub.docker.com>), create an account if you did not have one.

7.1.2 Create a repository as below:



Create Repository

A screenshot of the 'Create Repository' form on Docker Hub. On the left, there is a list of instructions: 1. Choose a namespace (Required), 2. Add a repository name (Required), 3. Add a short description, 4. Add markdown to the full description field, 5. Set it to be a private or public repository. The form itself has a light blue background and contains the following fields: a dropdown menu for the namespace (currently showing 'qihaobao'), a text input for the repository name (placeholder 'Enter Name'), a text input for the short description (placeholder 'Short Description (100 Characters)'), a larger text input for the full description (placeholder 'Full Description'), and a dropdown menu for visibility (currently showing 'public'). At the bottom of the form is a blue 'Create' button.

7.2 commit your modified docker image to your recently created docker repo (you could write a comment here):

docker commit <docker id> cmusvsc/opennex-python:<tag>

E.g. `docker commit 2454a17aee0c <Your_Docker_ID>/<Your_repo>:v1`

7.3 push your committed docker image to docker hub physically:

E.g `docker push <Your_Docker_ID>/<Your_repo>:v1`