

Docker Hub

Business Science

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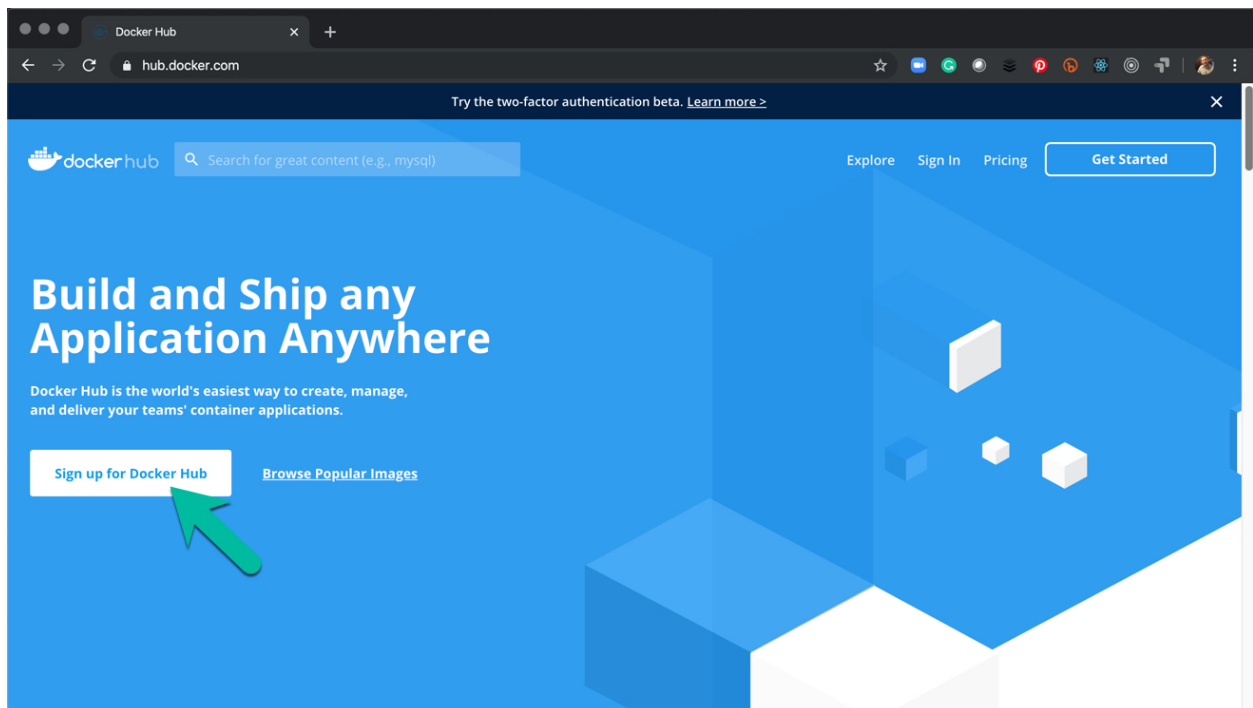
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Docker Hub

This document covers the using Docker Hub (<https://hub.docker.com/>) to find images that will help as a starting point for the software container fthat will run your application.

Create an Account

Create an account at Docker Hub (<https://hub.docker.com/>) to be able to **push** and **pull** Docker Hub images.



Log Into Docker via Command Line

Use `docker login` to log into DockerHub via the commandline.

1. `docker login --help` - Use this to see the options for logging in
2. `docker login -u your_user_name` - The `-u` option allows us to pass our user name.
3. Password - The prompt will request our password for DockerHub

```
mdancho@Matthews-MacBook-Pro-2 ~ % docker login --help
Usage:  docker login [OPTIONS] [SERVER]

Log in to a Docker registry.
If no server is specified, the default is defined by the daemon.

Options:
  -p, --password string      Password
  --password-stdin           Take the password from stdin
  -u, --username string      Username
mdancho@Matthews-MacBook-Pro-2 ~ % docker login -u mdancho
Password:
Login Succeeded
mdancho@Matthews-MacBook-Pro-2 ~ %
```

Searching Docker Hub

Use `docker search` to search for containers related to our project. Alternatively we can search on the DockerHub website.

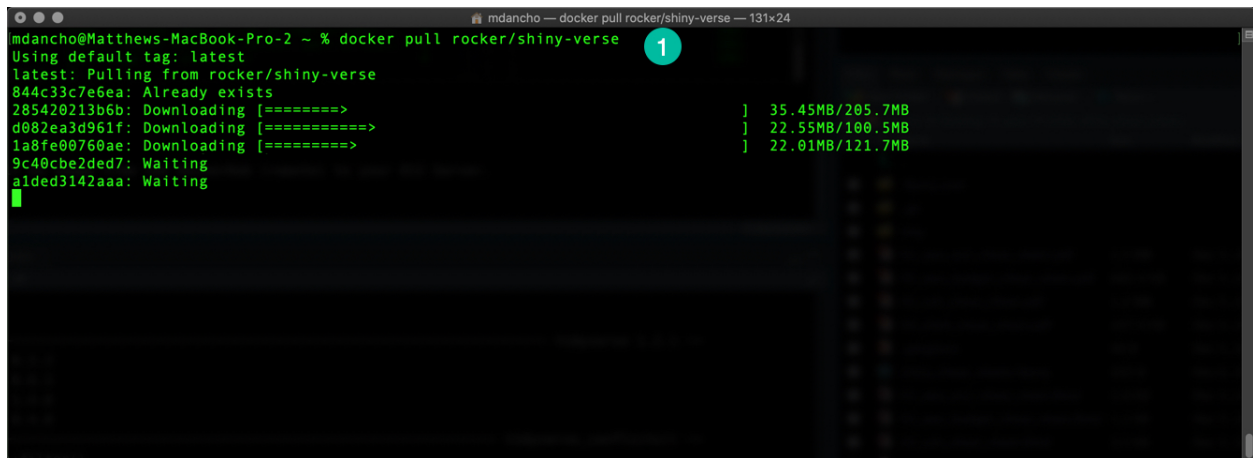
1. `docker search shiny` - Searches all instances where “shiny” is present. Sorts by DockerHub Stars.
2. NAME - Docker registry name
3. STARS - Docker Hub Star count

```
mdancho@Matthews-MacBook-Pro-2 ~ % docker search shiny
NAME                DESCRIPTION                STARS    OFFICIAL    AUTOMATED
rocker/shiny        Rocker Shiny image + Tidyverse R packages. U... 129      [OK]
rocker/shiny-verse  Image to demo how to deploy Shiny apps using... 17       [OK]
openanalytics/shinyproxy-demo  ShinyServer plus HadleyVerse plus my favorit... 13
shrektan/shiny      RStudio + VS Code + Shiny Server, driven by ... 9
dm3ll3n/shinystudio  Image to demo how to run ShinyProxy in a con... 4
openanalytics/shinyproxy  This is the Dockerized Shiny App [Wordcloud]... 4
flaviobarrros/shiny-wordcloud  Shiny server 1
dashboardsfhi/shiny  Multi-platform build of debian, gnuradio and... 1
jeffersonjhunt/shinysdr  Started with the base shiny build "rocker/sh... 0
novachild/shiny        extends shinyredrobot/tutum-apache with the ... 0
shinyredrobot/tutum-apache-php  A ShinyProxy instance running in docker 0
seabbs/shinyproxy-in-docker  Base image for Shiny apps on the Saagie Plat... 0
saagie/shiny4saagie  Shiny server + Python3 TensorFlow 0
challisa/shiny-object  Shiny Server for CyVerse VICE 0
cyversevice/shiny-verse  NRGi Shiny App sever. 0
nrqi/shiny  A lightweight, containerized implementation ... 0
dcal12/shinyproxy-alpine  Docker for student project. See: https://git... 0
mapic/shiny-auth0  Ausvet Shiny base image 0
sllvester/shinylabview  Base image for Shiny TDMore 0
ausvet/shiny  Build of gnuradio + shinysdr server 0
rfaelens/shinytdmore  Node.js server able to run as unprivileged u... 0
chrismetcal/shinysdr-docker  Docker Images for Shiny Server, part of Anal... 0
shinydocker/node  base image for shiny apps 0
b2bwebid/shiny-server
wkmor1/shiny-app
```

Pulling an Image

Use `docker pull` to pull an image from the DockerHub (remote) to your EC2 Server.

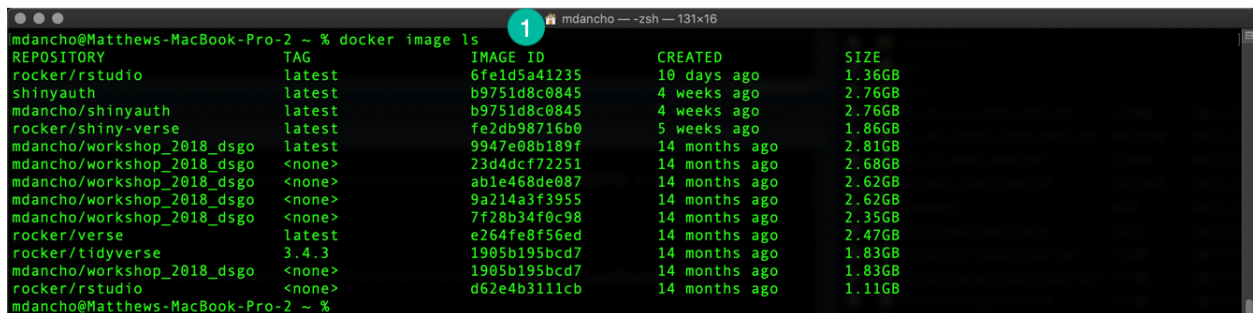
1. `docker pull rocker/shiny-verse` - Pulls an image that contains `shiny` server and the `tidyverse` R packages
2. `docker pull rocker/tidyverse` (Not shown) - Pulls an image that contains `RStudio` server and `tidyverse` R packages



```
mdanco@Matthews-MacBook-Pro-2 ~ % docker pull rocker/shiny-verse
Using default tag: latest
latest: Pulling from rocker/shiny-verse
844c33c7e6ea: Already exists
285420213b6b: Downloading [=====] 35.45MB/205.7MB
d082ea3d961f: Downloading [=====] 22.55MB/100.5MB
1a8fe00760ae: Downloading [=====] 22.01MB/121.7MB
9c40cbe2ded7: Waiting
a1ded3142aaa: Waiting
```

List the Docker Images

1. `docker image ls` - List the local docker images installed on the EC2 Server.
 - Note that you will likely have fewer images
 - **Size** - If you install many images, you can quickly eat up server space



```
mdanco@Matthews-MacBook-Pro-2 ~ % docker image ls
REPOSITORY          TAG                 IMAGE ID            CREATED             SIZE
rocker/rstudio       latest             6fe1d5a41235       10 days ago        1.36GB
shinyauth            latest            b9751d8c0845       4 weeks ago        2.76GB
mdanco/shinyauth     latest            b9751d8c0845       4 weeks ago        2.76GB
rocker/shiny-verse   latest            fe2db98716b0       5 weeks ago        1.86GB
mdanco/workshop_2018_dsgo latest          9947e08b189f       14 months ago      2.81GB
mdanco/workshop_2018_dsgo <none>          23d4dcf72251       14 months ago      2.68GB
mdanco/workshop_2018_dsgo <none>          ab1e468de087       14 months ago      2.62GB
mdanco/workshop_2018_dsgo <none>          9a214a3f3955       14 months ago      2.62GB
mdanco/workshop_2018_dsgo <none>          7f28b34f0c98       14 months ago      2.35GB
rocker/verse         latest            e264fe8f56ed       14 months ago      2.47GB
rocker/tidyverse     3.4.3            1905b195bcd7       14 months ago      1.83GB
mdanco/workshop_2018_dsgo <none>          1905b195bcd7       14 months ago      1.83GB
rocker/rstudio       <none>            d62e4b3111cb       14 months ago      1.11GB
mdanco@Matthews-MacBook-Pro-2 ~ %
```

Wrapup

Now you have the following Docker Images successfully installed on your EC2 Server:

1. `rocker/shiny-verse` - Contains `shiny` server and the `tidyverse` R packages
2. `rocker/tidyverse` - Contains `rstudio` server and the `tidyverse` R packages