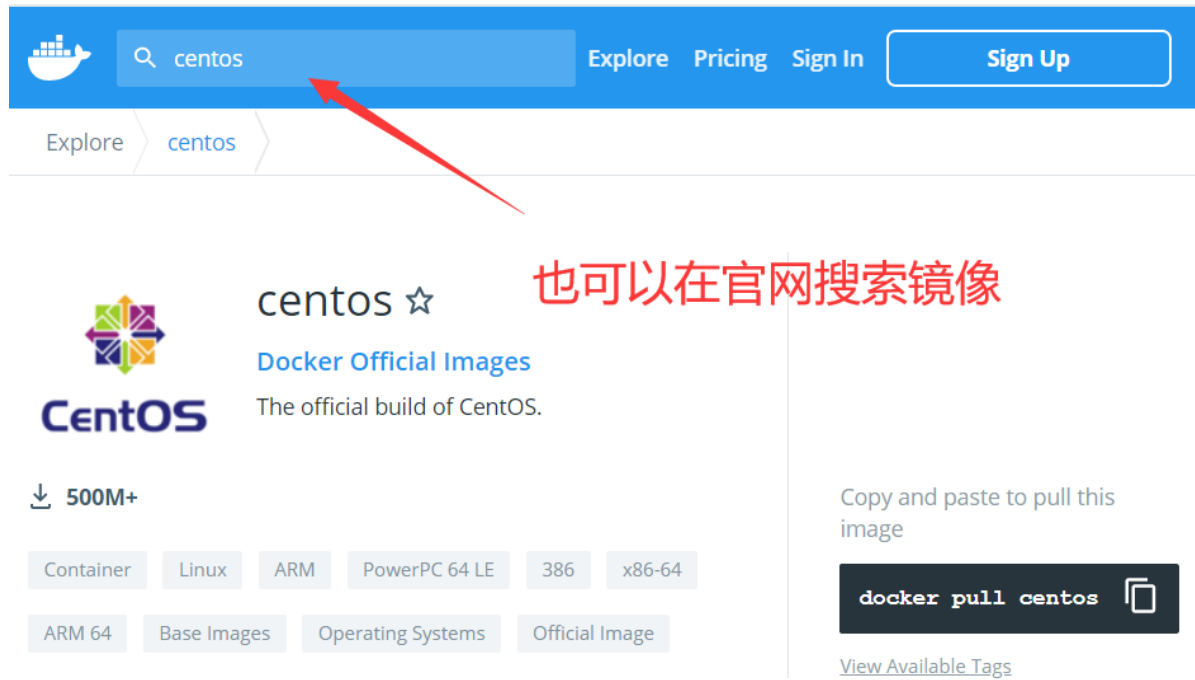


# 搜索镜像

```
1 [root@docker-server ~]# docker search centos
2 NAME                                DESCRIPTION
3 centos                              The official build of CentOS.
4 ansible/centos7-ansible             Ansible on Centos7
5 consol/centos-xfce-vnc              Centos container with "headless" VNC
6 jdeathe/centos-ssh                  OpenSSH / Supervisor / EPEL/IUS/SCL Repos
7 centos/systemd                      systemd enabled base container.
8 imagine10255/centos6-lamp-php56     centos6-lamp-php56
9 tutum/centos                        Simple CentOS docker image with SSH
10 kinogmt/centos-ssh                  CentOS with SSH
11 pivotaldata/centos-gpdb-dev         CentOS image for GPDB development. Tag
12 guyton/centos6                      From official centos6 container with full
13 centos/tools                         Docker image that has systems
14 drecom/centos-ruby                  centos ruby
15 pivotaldata/centos                  Base centos, freshened up a little with a
16 pivotaldata/centos-gcc-toolchain     CentOS with a toolchain, but unaffiliated
17 darksheer/centos                     Base Centos Image -- Updated hourly
18 mamohr/centos-java                  Oracle Java 8 Docker image based on
19 pivotaldata/centos-mingw             Using the mingw toolchain to cross-
20 miko2u/centos6                       CentOS6 日本語環境
21 indigo/centos-maven                  Vanilla CentOS 7 with Oracle Java
22 amd64/centos                         The official build of CentOS.
23 dokken/centos-7                      CentOS 7 image for kitchen-dokken
24 pivotaldata/centos6.8-dev            CentOS 6.8 image for GPDB development
25 blacklabelops/centos                 CentOS Base Image! Built and Updates
26 smartentry/centos                    centos with smartentry
```

可以看到返回了很多包含关键字的镜像，其中包括镜像名字、描述、点赞数（表示该镜像的受欢迎程度）、是否官方创建、是否自动创建。默认输出结果按照星级评价进行排序。



也可以在官网搜索镜像

## 下载镜像

可以使用docker pull命令直接下载镜像，语法为：

```
1 docker pull NAME:TAG
```

其中，NAME是镜像名称，TAG是镜像的标签（往往用来表示版本信息），通常情况下，描述一个镜像需要包括名称+标签，如果不指定标签，标签的值默认为latest。

- 下载nginx、centos、hello-world镜像

```
1 [root@docker-server ~]# docker pull nginx
2 [root@docker-server ~]# docker pull centos
3 [root@docker-server ~]# docker pull hello-world
```

## 查看镜像信息

### docker images

- 列出本地所有镜像

```
1 [root@docker-server ~]# docker images
2 REPOSITORY      TAG       IMAGE ID       CREATED        SIZE
3 nginx           latest    d1a364dc548d   2 weeks ago    133MB
4 hello-world     latest    d1165f221234   3 months ago   13.3kB
5 centos         latest    300e315adb2f   6 months ago   209MB
```

在列出的信息中可以看到几个字段：

- REPOSITORY：镜像仓库名称

- TAG: 镜像的标签信息
- 镜像ID: 唯一用来标识镜像, 如果两个镜像的ID相同, 说明他们实际上指向了同一个镜像, 只是具有不同标签名称而已
- CREATED: 创建时间, 说明镜像的最后更新时间
- SIZE: 镜像大小, 优秀的镜像往往体积都较小

## docker tag

为了方便在后续工作中使用特定镜像, 可以使用docker tag命令来为本地镜像任意添加新的标签

```
1 [root@docker-server ~]# docker tag centos:latest mycentos:latest
2 [root@docker-server ~]# docker images
3 REPOSITORY      TAG          IMAGE ID      CREATED        SIZE
4 nginx           latest      d1a364dc548d  2 weeks ago   133MB
5 hello-world     latest      d1165f221234  3 months ago  13.3kB
6 centos          latest      300e315adb2f  6 months ago  209MB
7 mycentos        latest      300e315adb2f  6 months ago  209MB
```

## docker inspect

可以使用docker inspect命令获取该镜像的详细信息

```
1 [root@docker-server ~]# docker inspect centos:latest
2 [
3     {
4         "Id":
5         "sha256:300e315adb2f96afe5f0b2780b87f28ae95231fe3bdd1e16b9ba606307728f55",
6         "RepoTags": [
7             "centos:latest",
8             "mycentos:latest"
9         ],
10        "RepoDigests": [
11            "centos@sha256:5528e8b1b1719d34604c87e11dcd1c0a20bedf46e83b5632cdeac91b8c04efc1"
12        ],
13        "Parent": "",
14        "Comment": "",
15        "Created": "2020-12-08T00:22:53.076477777Z",
16        "Container":
17        "395e0bfa7301f73bc994efe15099ea56b8836c608dd32614ac5ae279976d33e4",
18        "ContainerConfig": {
19            "Hostname": "395e0bfa7301",
20            "Domainname": "",
21            "User": "",
22            "AttachStdin": false,
23            "AttachStdout": false,
24            "AttachStderr": false,
25            "Tty": false,
26            "OpenStdin": false,
27            "StdinOnce": false,
28            "Env": [
29                "PATH=/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin"
```

```

30         "/bin/sh",
31         "-c",
32         "#(nop) ",
33         "CMD [\"/bin/bash\"]"
34     ],
35     "Image":
36     "sha256:6de05bdfbf9a9d403458d10de9e088b6d93d971dd5d48d18b4b6758f4554f451",
37     "Volumes": null,
38     "WorkingDir": "",
39     "Entrypoint": null,
40     "OnBuild": null,
41     "Labels": {
42         "org.label-schema.build-date": "20201204",
43         "org.label-schema.license": "GPLv2",
44         "org.label-schema.name": "CentOS Base Image",
45         "org.label-schema.schema-version": "1.0",
46         "org.label-schema.vendor": "CentOS"
47     },
48     "DockerVersion": "19.03.12",
49     "Author": "",
50     "Config": {
51         "Hostname": "",
52         "Domainname": "",
53         "User": "",
54         "AttachStdin": false,
55         "AttachStdout": false,
56         "AttachStderr": false,
57         "Tty": false,
58         "OpenStdin": false,
59         "StdinOnce": false,
60         "Env": [
61
62         "PATH=/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin"
63     ],
64     "Cmd": [
65         "/bin/bash"
66     ],
67     "Image":
68     "sha256:6de05bdfbf9a9d403458d10de9e088b6d93d971dd5d48d18b4b6758f4554f451",
69     "Volumes": null,
70     "WorkingDir": "",
71     "Entrypoint": null,
72     "OnBuild": null,
73     "Labels": {
74         "org.label-schema.build-date": "20201204",
75         "org.label-schema.license": "GPLv2",
76         "org.label-schema.name": "CentOS Base Image",
77         "org.label-schema.schema-version": "1.0",
78         "org.label-schema.vendor": "CentOS"
79     },
80     "Architecture": "amd64",
81     "Os": "linux",
82     "Size": 209348104,
83     "VirtualSize": 209348104,
84     "GraphDriver": {
85         "Data": {

```

```

85         "MergedDir":
            "/var/lib/docker/overlay2/fc171623b3190077aec6cf1fdd969e635e7a5144b30ad8ca9
            4204d02739b1e9e/merged",
86         "UpperDir":
            "/var/lib/docker/overlay2/fc171623b3190077aec6cf1fdd969e635e7a5144b30ad8ca9
            4204d02739b1e9e/diff",
87         "WorkDir":
            "/var/lib/docker/overlay2/fc171623b3190077aec6cf1fdd969e635e7a5144b30ad8ca9
            4204d02739b1e9e/work"
88     },
89     "Name": "overlay2"
90 },
91 "RootFS": {
92     "Type": "layers",
93     "Layers": [
94
95         "sha256:2653d992f4ef2bfd27f94db643815aa567240c37732cae1405ad1c1309ee9859"
96     ],
97     "Metadata": {
98         "LastTagTime": "2021-06-09T10:18:13.630764623+08:00"
99     }
100 }
101 ]

```

## docker history

镜像由多层组成，可以使用history子命令，该命令将列出各层创建信息

```

1 [root@docker-server ~]# docker history centos:latest
2 IMAGE          CREATED          CREATED BY
3 300e315adb2f   6 months ago    /bin/sh -c #(nop)  CMD ["/bin/bash"]
4 <missing>      6 months ago    /bin/sh -c #(nop)  LABEL org.label-schema.sc...
5 <missing>      6 months ago    /bin/sh -c #(nop)  ADD file:bd7a2aed6ede423b7...

```

## 镜像导入导出

### 导出

可以将镜像从本地导出为一个压缩文件，然后复制到其他服务器进行导入使用

- 导出方法一

```

1 [root@docker-server ~]# docker save centos:latest -o /opt/centos.tar.gz
2 [root@docker-server ~]# ll /opt/centos.tar.gz
3 -rw----- 1 root root 216535040 6月  9 10:33 /opt/centos.tar.gz

```

- 导出方法二

```
1 [root@docker-server ~]# docker save centos:latest > /opt/centos-1.tar.gz
2 [root@docker-server ~]# ll /opt/centos-1.tar.gz
3 -rw-r--r-- 1 root root 216535040 6月 9 10:35 /opt/centos-1.tar.gz
```

## 导入

先将导出的镜像发到需要导入的docker服务器中

- 导入方法一

```
1 [root@docker-server ~]# docker load -i /opt/centos.tar.gz
2 Loaded image: centos:latest
```

- 导出方法二

```
1 [root@docker-server ~]# docker load < /opt/centos.tar.gz
2 Loaded image: centos:latest
```

## 删除镜像

- 使用镜像名称+标签

```
1 [root@docker-server ~]# docker images
2 REPOSITORY      TAG          IMAGE ID      CREATED        SIZE
3 nginx           latest      d1a364dc548d  2 weeks ago   133MB
4 hello-world     latest      d1165f221234  3 months ago  13.3kB
5 centos          latest      300e315adb2f  6 months ago  209MB
6 mycentos        latest      300e315adb2f  6 months ago  209MB
7 [root@docker-server ~]# docker rmi nginx:latest
8 Untagged: nginx:latest
9 Untagged:
  nginx@sha256:6d75c99af15565a301e48297fa2d121e15d80ad526f8369c526324f0f7ccb75
  0
10 Deleted:
  sha256:d1a364dc548d5357f0da3268c888e1971bbdb957ee3f028fe7194f1d61c6fdee
11 Deleted:
  sha256:fcc8faba78fe8a1f75025781c8fa1841079b75b54fce8408d039f73a48b7a81b
12 Deleted:
  sha256:a476b265974ace4c857e3d88b358e848f126297a8249840c72d5f5ea1954a4bf
13 Deleted:
  sha256:56722ee1ee7e73a5c6f96ea2959fa442fb4db9f044399bcd939bb0a6eb7919dc
14 Deleted:
  sha256:c657df997c75f6c1a9c5cc683e8e34c6f29e5b4c1dee60b632d3477fd5fdd644
15 Deleted:
  sha256:e9e1f772d2a8dbbeb6a4a4dcb4f0d07ff1c432bf94fac7a2db2216837bf9ec5b
16 Deleted:
  sha256:02c055ef67f5904019f43a41ea5f099996d8e7633749b6e606c400526b2c4b33
```

- 使用镜像id

```
1 [root@docker-server ~]# docker images
2 REPOSITORY      TAG          IMAGE ID      CREATED        SIZE
3 hello-world     latest      d1165f221234  3 months ago  13.3kB
4 centos          latest      300e315adb2f  6 months ago  209MB
```

```
5 mycentos      latest      300e315adb2f    6 months ago    209MB
6 [root@docker-server ~]# docker rmi 300e315adb2f
7 Error response from daemon: conflict: unable to delete 300e315adb2f (must be
  forced) - image is referenced in multiple repositories
8 [root@docker-server ~]# docker rmi 300e315adb2f -f
9 Untagged: centos:latest
10 Untagged:
   centos@sha256:5528e8b1b1719d34604c87e11dcd1c0a20bedf46e83b5632cdeac91b8c04ef
   c1
11 Untagged: mycentos:latest
12 Deleted:
   sha256:300e315adb2f96afe5f0b2780b87f28ae95231fe3bdd1e16b9ba606307728f55
13 Deleted:
   sha256:2653d992f4ef2bfd27f94db643815aa567240c37732cae1405ad1c1309ee9859
14 [root@docker-server ~]# docker images
15 REPOSITORY      TAG          IMAGE ID        CREATED          SIZE
16 hello-world      latest       d1165f221234    3 months ago    13.3kB
17
```