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ADocker Metadata and labels.

Procedure:

1) To add a label on a container user option -l while launching container. For example, docker run -l user=12345 -d redis.

```
$ docker run -l user=12345 -d redis
d8ef05b3924e6a4608c8bc124494d626622a1e76fd3ddd4b3aa69b539d7ce58e
$ docker ps
```

CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS	PORTS
d8ef05b3924e	redis	"docker-entrypoint.s..."	8 seconds ago	Up 6 seconds	6379/tcp
p	relaxed_hamilton				
e06767208df1	redis	"docker-entrypoint.s..."	14 minutes ago	Up 14 minutes	6379/tcp
p	rd				

```
$ ^C
```

2) We can also add labels from external file. For this, use option --label-file to provide file containing labels.

```
$
$ echo 'user=123461' >> labels && echo 'role=cache' >> labels
$ docker run --label-file=labels -d redis
82a2bf60268f38b4881a20749b15dbbb185a2ae0f14d295ff6c561337e9b9c6d
$
$ docker ps
```

CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS	PORTS
82a2bf60268f	redis	"docker-entrypoint.s..."	15 seconds ago	Up 14 seconds	6379/tcp
p	wonderful_tereshkova				
d8ef05b3924e	redis	"docker-entrypoint.s..."	2 minutes ago	Up 2 minutes	6379/tcp
p	relaxed_hamilton				
e06767208df1	redis	"docker-entrypoint.s..."	16 minutes ago	Up 16 minutes	6379/tcp
p	rd				

```
$
```

3) To see all the labels on a running container, use command **docker inspect**. But docker inspect will show other

information also. Using the `-f` option you can filter the JSON response to just the Labels section we're interested in.

```
        "Gateway": "172.18.0.1",
        "IPAddress": "172.18.0.2",
        "IPPrefixLen": 24,
        "IPv6Gateway": "",
        "GlobalIPv6Address": "",
        "GlobalIPv6PrefixLen": 0,
        "MacAddress": "02:42:ac:12:00:02",
        "DriverOpts": null
    }
}
}
]
$ docker inspect -f "{{json .Config.Labels }}" rd
{"com.katacoda.created":"automatically","com.katacoda.private-msg":"magic","user":"scrapbook"}
$
```

4) We can also see labels on images. For this command is **`docker inspect -f "{{json .ContainerConfig.Labels }}" katacoda-label-example`**.

```
$
$
$
$ docker inspect -f "{{json .ContainerConfig.Labels }}" katacoda-label-example
{"com.katacoda.build-date":"2015-07-01T10:47:29Z","com.katacoda.course":"Docker","com.katacoda.private-msg":"HelloWorld","com.katacoda.version":"0.0.5","vendor":"Katacoda"}
$
```

5) The command **`docker ps`** allows you to specify a filter based on a label name and value. For example, the query below will return all the containers which have a *user* label key with the value *katacoda*.

```
$
$ docker ps --filter "label=user=scrapbook"
CONTAINER ID        IMAGE               COMMAND             CREATED             STATUS              PORTS
e06767208df1       redis              "docker-entrypoint.s..." 24 minutes ago      Up 24 minutes      6379/tcp
$
```

6) The same filter approach can be applied to images based on the labels used when the image was built.

```
$  
$ docker images --filter "label=vendor=Katacoda"  
REPOSITORY          TAG          IMAGE ID          CREATED          SIZE  
katacoda-label-example  latest      52080a3a72b4     25 minutes ago  84.1MB  
$
```