

# Connecting to Running Containers

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To access a container that is already running, docker provides `docker exec` command

```
docker run -it --name apache httpd /bin/bash````
```

After executing it, you will be presented with a prompt inside the container and hostname `root@container-id:/path/to/working/directory`

- `-it` options are required if you want to use an interactive shell
- `/bin/bash` es el comando para ejecutar dentro del container. Analogo a la instruccion CMD del Dockerfile
- Se puede utilizar `dit` de igual manera

## Connecting to Containers

```
docker run -it --name enter_redis redis /bin/bash
bash -version
exit
docker ps -a
# Container status EXITED
```

# Docker Logging

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```
docker run -dit --name busylogs -p 8080:8080 -p 50000:50000
jenins/jenkins:lts
docker logs busylogs
```

```

gfi@xenla:~$ docker logs -t 1
2022-06-27 13:29:38.169+0000 [id=1] INFO org.eclipse.jetty.server.Server:doStart: jetty-9.4.46.v20220331; built: 2022-03-31T16:38:08.030Z; git: bcl7a0309a1fec40b092e839b0ef0a8ac50ea18; jvm 11.0.15+10
2022-06-27 13:29:38.311+0000 [id=1] INFO o.e.j.w.StandardDescriptorProcessor:visitServlet: NO JSP Support for /, did not find org.eclipse.jetty.jsp.JettyJspServlet
2022-06-27 13:29:38.332+0000 [id=1] INFO o.e.j.s.s.DefaultSessionIdManager:doStart: DefaultSessionIdManager workerName=node0
2022-06-27 13:29:38.332+0000 [id=1] INFO o.e.j.s.s.DefaultSessionIdManager:doStart: No SessionScavenger set, using defaults
2022-06-27 13:29:38.333+0000 [id=1] INFO o.e.j.server.session.HouseKeeper:doStartScavenging: node0 Scavenging every 660000ms
2022-06-27 13:29:38.594+0000 [id=1] INFO hudson.WebAppMain:contextInitialized: Jenkins home directory: /var/jenkins_home found at: EnvVars.masterEnvVars.get("JENKINS_HOME")
2022-06-27 13:29:38.793+0000 [id=1] INFO o.e.j.s.handler.ContextHandler:doStart: Started w.@68217d41{Jenkins v2.356.0;file:///var/jenkins_home/war/AVAILABLE}[/var/jenkins_home/war]
2022-06-27 13:29:38.719+0000 [id=1] INFO o.e.j.server.AbstractConnector:doStart: Started ServerConnector@625c44e7{HTTP/1.1, (http/1.1)}{0.0.0.0:8080}
2022-06-27 13:29:38.720+0000 [id=1] INFO org.eclipse.jetty.server.Server:doStart: Started @1443ms
2022-06-27 13:29:38.720+0000 [id=25] INFO winstone.Logger:logInternal: Winstone Servlet Engine running: controlPort=disabled
2022-06-27 13:29:38.843+0000 [id=32] INFO jenkins.InitReactorRunner$1:onAttained: Started initialization
2022-06-27 13:29:38.950+0000 [id=43] INFO jenkins.InitReactorRunner$1:onAttained: Listed all plugins
2022-06-27 13:29:39.349+0000 [id=44] INFO jenkins.InitReactorRunner$1:onAttained: Prepared all plugins
2022-06-27 13:29:39.352+0000 [id=32] INFO jenkins.InitReactorRunner$1:onAttained: Started all plugins
2022-06-27 13:29:39.356+0000 [id=32] INFO jenkins.InitReactorRunner$1:onAttained: Augmented all extensions
2022-06-27 13:29:39.681+0000 [id=31] INFO jenkins.InitReactorRunner$1:onAttained: System config loaded
2022-06-27 13:29:39.682+0000 [id=30] INFO jenkins.InitReactorRunner$1:onAttained: System config adapted
2022-06-27 13:29:39.682+0000 [id=30] INFO jenkins.InitReactorRunner$1:onAttained: Loaded all jobs
2022-06-27 13:29:39.683+0000 [id=30] INFO jenkins.InitReactorRunner$1:onAttained: Configuration for all jobs updated
2022-06-27 13:29:39.690+0000 [id=58] INFO hudson.model.AsyncPeriodicWork.lambda$doRun$1: Started Download metadata
2022-06-27 13:29:39.700+0000 [id=58] INFO hudson.util.Retrier:start: Attempt #1 to do the action check updates server
WARNING: An illegal reflective access operation has occurred
WARNING: Illegal reflective access by org.codehaus.groovy.vmplugin.v7.Java7$1 (file:/var/jenkins_home/war/WEB-INF/lib/groovy-all-2.4.21.jar) to constructor java.lang.invoke.MethodHandles$Lookup(java.lang.Class,java.lang.Object)
WARNING: Please consider reporting this to the maintainers of org.codehaus.groovy.vmplugin.v7.Java7$1
WARNING: Use --illegal-access=warn to enable warnings of further illegal reflective access operations
WARNING: All illegal access operations will be denied in a future release
2022-06-27 13:29:40.044+0000 [id=35] INFO jenkins.install.SetupWizard:doInit:

*****
*****
*****

Jenkins initial setup is required. An admin user has been created and a password generated.
Please use the following password to proceed to installation:

377c56035b4b40b6a9a9e9533821511

This may also be found at: /var/jenkins_home/secrets/initialAdminPassword

*****
*****
*****

2022-06-27 13:29:57.421+0000 [id=35] WARNING hudson.model.UpdateCenter:updateDefaultSite: Upgrading Jenkins. Failed to update the default Update Site 'default'. Plugin upgrades may fail.
java.nio.file.FileAlreadyExistsException: /var/jenkins_home/updates
    at java.base/sun.nio.fs.UnixException.translateToIOException(UnixException.java:94)
    at java.base/sun.nio.fs.UnixException.rethrowAsIOException(UnixException.java:111)
    at java.base/sun.nio.fs.UnixException.rethrowAsIOException(UnixException.java:116)
    at java.base/sun.nio.fs.UnixFileSystemProvider.createDirectory(UnixFileSystemProvider.java:389)
    at java.base/java.nio.file.Files.createDirectory(Files.java:690)
    at hudson.util.CreateDirectoriesUtil.createDirectories(Util.java:1791)
    at hudson.util.CreateDirectoriesUtil.createDirectories(Util.java:1405)

```

- Follow the changes: `-f`
- Timestamps: `-t`
  - `docker logs -t nombrecontainer`
  - `docker logs -t nombrecontainer --since 2022-01-01`
  - Logs recorded in `/var/log` directory

## External Logging

Docker engine creates logs, sends its to the host machine syslog system - Linux: `/var/log/messages` - Debian/Ubuntu: `/var/log/syslog`

## Journal Command

displays the last 20 entries in the logs from all the service on the system

```

journalctl -n 20
journalctl -u docker.service -n 20 # Filter for service
journalctl --no-pager -u docker.service -n 20

```