



docker

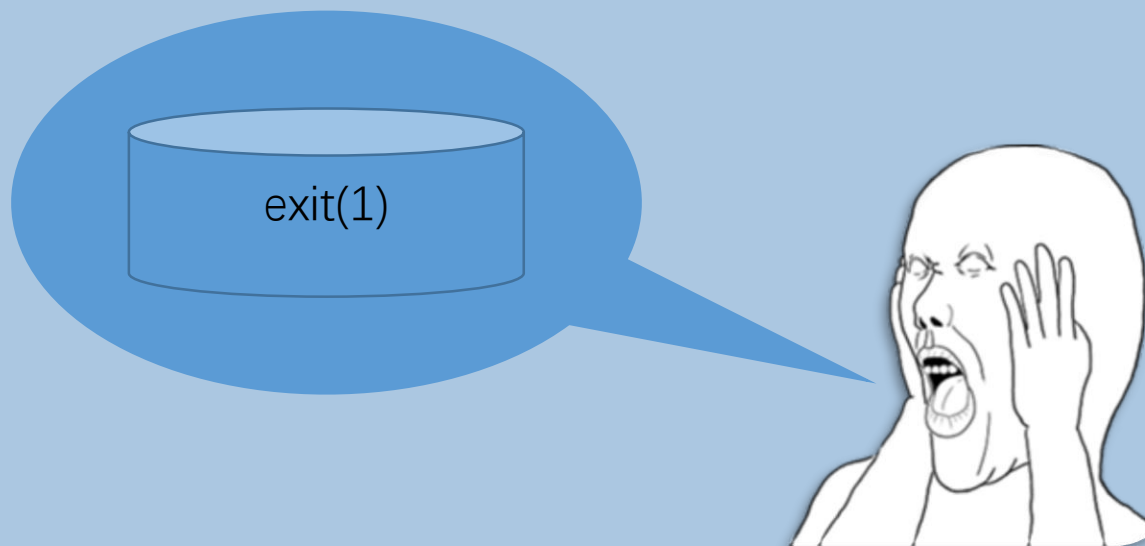
## Docker Tutorials

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# Ensuring Uptime

# Introduction

在之前的案例里面，我们已经启动了一些容器，但是和其他进程一样，容器也可能可能会崩溃/宕机。这个案例将探索如何保持容器一直保持处于活动状态，并在意外崩溃时自动重启它们。



# Step 1 - Stop On Fail❶

- Docker设置了“任何容器崩溃以非零代码退出”。默认情况下，一个崩溃的容器将处于停止状态。
- 专门启动一个存在异常的容器，使用 *docker ps* 可以看到容器状态
  - *docker run -d --name restart-default scrapbook/docker-restart-example*
  - *docker ps -a*

```
$ docker run -d --name restart-default scrapbook/docker-restart-example
cf12df6c3eb92220be7d1c9fbec58ccce9d02db9592647be487036e6a7c62037
$ docker ps -a
```

CONTAINER ID	IMAGE	COMMAND	CREATED
cf12df6c3eb9	scrapbook/docker-restart-example	"/bin/sh -c ./laun..."	28 seconds ago
Exited (1) 26 seconds ago		restart-default	

# Step 1 - Stop On Fail②

- While the logs will output our message, which in real-life would hopefully indicate information to help us diagnose the issue.

- *docker logs restart-default*

- ```
$ docker logs restart-default  
Mon Nov 20 07:07:10 UTC 2017 Booting up...
```

# Step 2 - Restart On Fail

- Step1的情况，可以尝试通过重启容器失败的进程来解决问题。在停止尝试之前， Docker可以自动设置重启Docker特定的次数。
- The option *--restart=on-failure:#* allows you to say how many times Docker should try again. In the example below, Docker will restart the container three times before stopping.
  - *docker run -d --name restart-3 --restart=on-failure:3 scrapbook/docker-restart-example*

```
$ docker run -d --name restart-3 --restart=on-failure:3 scrapbook/docker-restart-example
1e703df915ef0cba2af6e99462d1e8d1ba8b8657d2e22b34294cf947c8704ad5
$ docker logs restart-3
Mon Nov 20 07:14:03 UTC 2017 Booting up...
Mon Nov 20 07:14:05 UTC 2017 Booting up...
Mon Nov 20 07:14:06 UTC 2017 Booting up...
Mon Nov 20 07:14:08 UTC 2017 Booting up...
```

# Step 3 - Always Restart

- Docker can always restart a failed container, in this case, Docker will keep trying until the container it is explicitly told to stop.
- Use the *always* flag to automatically restart the container when it crashes.
  - *docker run -d --name restart-always --restart=always scrapbook/docker-restart-example*

```
$ docker logs restart-always
Mon Nov 20 07:16:48 UTC 2017 Booting up...
Mon Nov 20 07:16:49 UTC 2017 Booting up...
Mon Nov 20 07:16:51 UTC 2017 Booting up...
Mon Nov 20 07:16:52 UTC 2017 Booting up...
Mon Nov 20 07:16:54 UTC 2017 Booting up...
Mon Nov 20 07:16:57 UTC 2017 Booting up...
Mon Nov 20 07:17:01 UTC 2017 Booting up...
```

# Reference

- <https://www.katacoda.com/courses/docker/9>