Getting Started with Redcan in Docker

How to set up, manage and stop a Redcan Docker container.

Overview

Redcan can be pulled from Dockerhub and run as a container.

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Steps

Please note some commands will require superuser privilege.

Pulling the Image

1. Pull the image from Dockerhub.

   ```
   sudo docker pull lfranc/redcan:1.1
   ```

   ```
   lfranc@francis:~/redcanary/redcan-1.1-docker$ sudo docker pull lfranc/redcan:1.1
   1.1: Pulling from lfranc/redcan
   da7391352a9b: Already exists
   14428a6d4bcd: Already exists
   2c2d948710f2: Already exists
   46a05b144c2c: Already exists
   Digest: sha256:fbc188bab23b797a3cbe71b84db9a54ce408af0166aad44065545796ac3ef93e
   Status: Downloaded newer image for lfranc/redcan:1.1
   docker.io/lfranc/redcan:1.1
   lfranc@francis:~/redcanary/redcan-1.1-docker$ sudo docker images
   REPOSITORY          TAG          IMAGE ID          CREATED          SIZE
   lfranc/redcan       1.1          15e8a3634838      24 hours ago     74.9MB
   ubuntu              latest       f643c72bc252      9 days ago       72.9MB
   hello-world         latest       bf756fb1ae65      11 months ago    13.3kB
   lfranc@francis:~/redcanary/redcan-1.1-docker$ _
   ```

Running the Image

1. Run the image as a container.
   a. In the foreground.

   sudo docker run lfranc/redcan:1.1

   ```
   lfranc@francis:~/redcanary/redcan-1.1-docker$ sudo docker run lfranc/redcan:1.1
   Running as a service. Waiting for SIGTERM or SIGKILL...
   Still waiting on SIGTERM or SIGKILL...
   Still waiting on SIGTERM or SIGKILL...
   Still waiting on SIGTERM or SIGKILL...
   Still waiting on SIGTERM or SIGKILL...
   Still waiting on SIGTERM or SIGKILL...
   ```

   b. In the background.

   sudo docker run --detach lfranc/redcan:1.1

   ```
   lfranc@francis:~/redcanary/redcan-1.1-docker$ sudo docker run --detach lfranc/redcan:1.1
   dfe055f0021627c39ec92804669252a97492503cba39a39ded549940e586806a
   ```

Checking the Container Status

1. List all containers.

   sudo docker ps

   ```
   lfranc@francis:~/redcanary/redcan-1.1-docker$ sudo docker ps
   CONTAINER ID        IMAGE               COMMAND             CREATED             STATUS
       PORTS               NAMES
   90e23e1a2cf2        lfranc/redcan:1.1   "/usr/bin/tam-hw -s"  6 minutes ago      Up 6 minutes
                       festive_perlman
   lfranc@francis:~/redcanary/redcan-1.1-docker$
   ```

Stopping the Container

1. Get container name from **docker ps** output.

   sudo docker ps

   ```
   CONTAINER ID        IMAGE               COMMAND             CREATED             STATUS
       PORTS               NAMES
   90e23e1a2cf2        lfranc/redcan:1.1   "/usr/bin/tam-hw -s"  6 minutes ago      Up 6 minutes
                       festive_perlman
   ```

2. Stop the container using its name.

   sudo docker stop *container_name*

   ```
   lfranc@francis:~/redcanary/redcan-1.1-docker$ sudo docker stop festive_perlman
   festive_perlman
   lfranc@francis:~/redcanary/redcan-1.1-docker$ sudo docker ps
   CONTAINER ID        IMAGE               COMMAND             CREATED             STATUS
   PORTS               NAMES
   ```

Checking Redcan Docker Logs

1. Access logs, different methods below.
   a. Dump all Redcan logs to output.

      sudo docker logs *container_name*

      ```
      Still waiting on SIGTERM or SIGKILL...
      Still waiting on SIGTERM or SIGKILL...
      Still waiting on SIGTERM or SIGKILL...
      Still waiting on SIGTERM or SIGKILL...
      Still waiting on SIGTERM or SIGKILL...
      Still waiting on SIGTERM or SIGKILL...
      Still waiting on SIGTERM or SIGKILL...
      Still waiting on SIGTERM or SIGKILL...
      Still waiting on SIGTERM or SIGKILL...
      Still waiting on SIGTERM or SIGKILL...
      Still waiting on SIGTERM or SIGKILL...
      lfranc@francis:~/redcanary/redcan-1.1-docker$ _
      ```

   b. Pipe log output to **less** for easy viewing.

      sudo docker logs *container_name* **| less**

      ```
      Still waiting on SIGTERM or SIGKILL...
      Still waiting on SIGTERM or SIGKILL...
      Still waiting on SIGTERM or SIGKILL...
      Still waiting on SIGTERM or SIGKILL...
      Still waiting on SIGTERM or SIGKILL...
      Still waiting on SIGTERM or SIGKILL...
      Still waiting on SIGTERM or SIGKILL...
      Still waiting on SIGTERM or SIGKILL...
      Still waiting on SIGTERM or SIGKILL...
      Still waiting on SIGTERM or SIGKILL...
      Still waiting on SIGTERM or SIGKILL...
      Still waiting on SIGTERM or SIGKILL...
      (END)
      ```

   c. Redirect log output to file.

      sudo docker logs *container_name* **>** *container_name***.log**

      ```
      lfranc@francis:~/redcanary/redcan-1.1-docker$ sudo docker logs objective_lovelace > objective_lovela
      ce.log
      lfranc@francis:~/redcanary/redcan-1.1-docker$ ls -l objective_lovelace.log
      -rw-rw-r-- 1 lfranc lfranc 21350 Dec  5 03:42 objective_lovelace.log
      ```

Common Questions	**Why did my container's name change?**
	Docker randomly generates each container's name. If the name changed, then the container was stopped and restarted.
	Why doesn't my container run when I've specified the correct name?
	The tag should be included with the image name in order to run.

```
lfranc@francis:~/redcanary/redcan-1.1-docker$ sudo docker run --detach lfranc/redcan
Unable to find image 'lfranc/redcan:latest' locally
docker: Error response from daemon: manifest for lfranc/redcan:latest not found: manifest
anifest unknown.
See 'docker run --help'.
lfranc@francis:~/redcanary/redcan-1.1-docker$ sudo docker run --detach lfranc/redcan:1.1
37a4ec7b5b6b5efdfe3c29edf655a675f45605971832933a81bc5b625cae5f3c
```

How do I navigate log output using less?

Reference this article for details.