

FIXING TOOMANYREQUESTS ERROR WHEN USING DOCKER WITH TRAVIS-CI

<https://londonappdeveloper.com/fixing-toomanyrequests-error-when-using-docker-with-travis-ci/>

Students of our course [Build a Backend REST API with Python & Django – Advanced](#) have recently been getting the following issue when pulling Docker images in Travis-CI jobs:

ERROR: toomanyrequests: You have reached your pull rate limit. You may increase the limit by authenticating and upgrading: <https://www.docker.com/increase-rate-limit>
The command "docker-compose run --rm app sh -c "python manage.py wait_for_db && python manage.py test && flake8"" exited with 1.

```
295
296 10-alpine: Pulling from library/postgres
297 ERROR: toomanyrequests: You have reached your pull rate limit. You may increase the limit by
    authenticating and upgrading: https://www.docker.com/increase-rate-limit
298 The command "docker-compose run --rm app sh -c "python manage.py wait_for_db && python
    manage.py test && flake8"" exited with 1.
299
300
301 Done. Your build exited with 1.
```

OU

```
3252 An error occurred (ClientException) when calling the RegisterTaskDefinition operation: Invalid setting for container
    '[secure]'. At least one of 'memory' or 'memoryReservation' must be specified.
3253 $ echo "$DOCKER_PASSWORD" | docker login -u "$DOCKER_USERNAME" --password-stdin
3254 Must provide --username with --password-stdin
3255 The command "echo "$DOCKER_PASSWORD" | docker login -u "$DOCKER_USERNAME" --password-stdin" failed and exited with 1 during .
3256
3257 Your build has been stopped.
```

Error showing toomanyrequests rate limit from Docker.

The problem occurs because Docker is now [rate limiting image pulls](#).

There is a limit of 100 pulls for anonymous users, which are tracked via their IP address. Since services like Travis-CI may serve thousands of customers from the same IP, the free allocation is quickly consumed.

How to fix it?

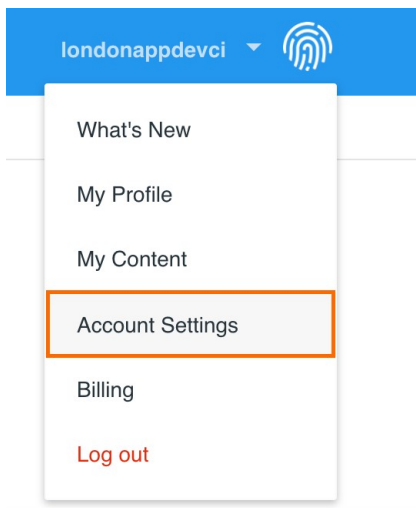
Fortunately, Docker provide a generous 200 pulls every 6 hours to those with a registered account, which should be more than enough for your average project. However, in order to use Docker on a shared CI/CD service (like Travis-CI), you need to make a few changes to authenticate.

In this guide, I'll show you how to do that!

Create an account on Docker Hub

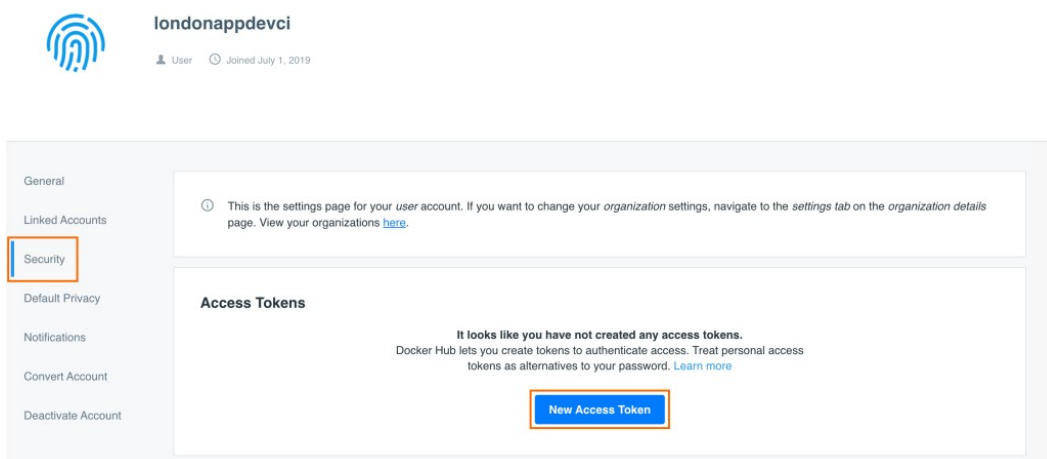
First, create a new free account at hub.docker.com.

Once logged in, click on your username (top right) and Account Settings:



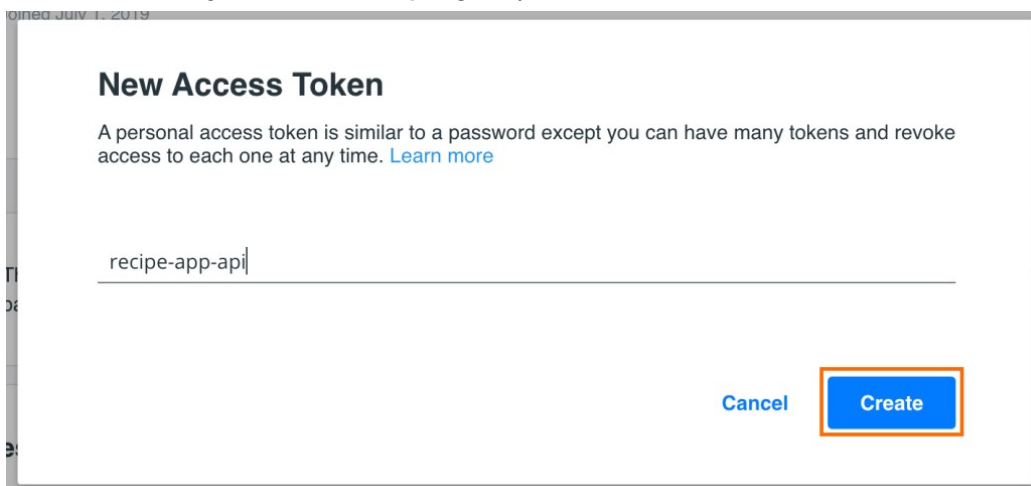
Account settings option in Docker Hub

From the Account Settings page, choose **Security** and then click **New Access Token**.

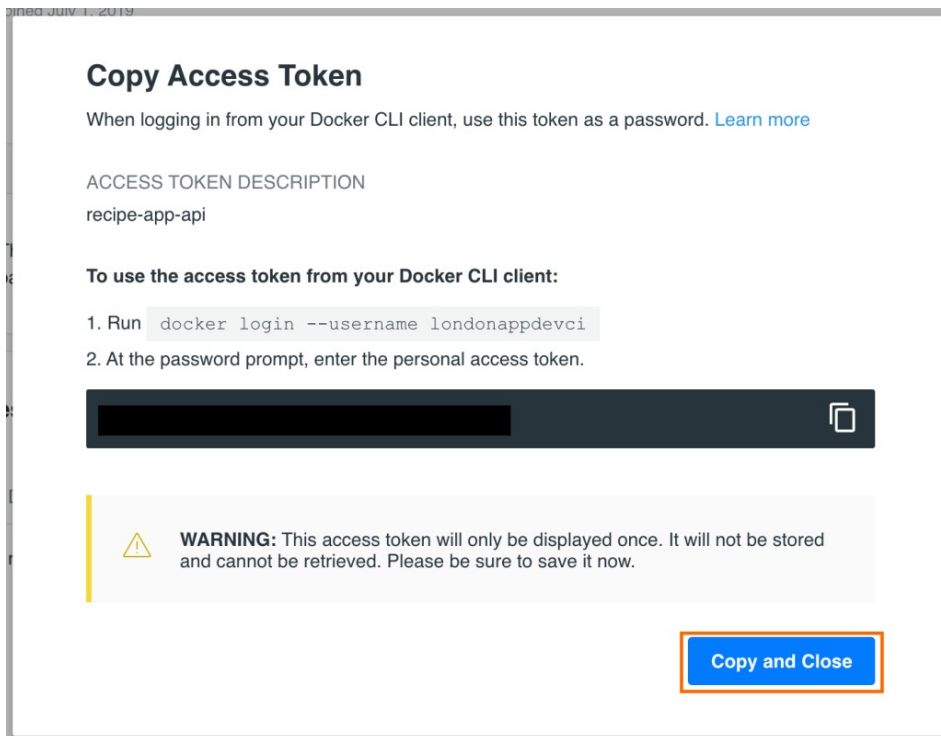


New Access Token option

On the *New Access Token* screen, enter a name for your token (I suggest using the name of your GitHub project), and click **Create**.



On the *Copy Access Token* screen, take note of the access token and store it somewhere securely (we'll need this further down), and click **Copy and Close**.



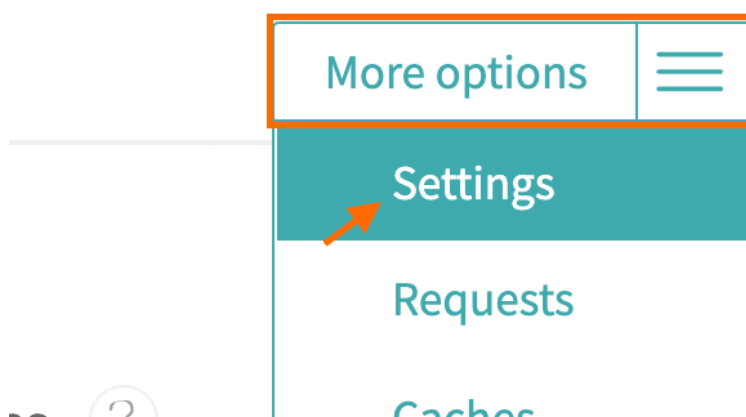
Note: *There is no way to retrieve the token once this screen is closed. If you lose it, simply delete the token and create a new one.*

Remember your **username** and **token**, because you're going to need that next!

Add credentials to Travis-CI

Login to travis-ci.com.

Then select your project, and choose **More options** > **Settings**.



Settings option for repository on Travis-CI

Locate the **Environment Variables** section, then add two new variables:

- **DOCKERHUB_USER** – The username for your Docker Hub account.
- **DOCKERHUB_TOKEN** – The token for your Docker Hub account.

Ensure you leave **DISPLAY VALUE IN BUILD LOG** *unchecked* for both values.

When done, it should look something like this:

Environment Variables

Customize your build using environment variables. For secure tips on generating private keys [read our documentation](#)

DOCKERHUB_TOKEN	••••••••••	Available to all branches	🗑️
DOCKERHUB_USER	••••••••••	Available to all branches	🗑️

📢 If your secret variable has special characters like `&`, escape them by adding `\` in front of each special character. For example, `ma&w!doc` would be entered as `ma&w\!doc`.

NAME	VALUE	BRANCH		DISPLAY VALUE IN BUILD LOG	Add
<input type="text" value="Name"/>	<input type="text" value="Value"/>	<input type="text" value="All branches"/>	▼	<input type="checkbox"/>	

Environment Variables section in Travis-CI

Modify Travis-CI Config

In your project, open the **.travis-ci.yml** file, and add the following block:

```
before_install:
  - echo $DOCKERHUB_TOKEN | docker login --username $DOCKERHUB_USER --password-stdin
```

This will do the following:

- `echo $DOCKER_PASSWORD` prints the password to the screen, and the `|` (pipe) will send that output to the proceeding command.
- `docker login --username $DOCKER_USERNAME` will call the `docker login` command with the **username** we set in the environment variables.
- `--password-stdin` is used to accept the **password** in a way that prevents it being printed to the screen (it's required with the `|` syntax).

If you're following our course, the full **.travis-ci.yml** file would look something like this:

```
language: python
python:
  - "3.6"
```

```
services:
  - docker

before_install:
  - echo $DOCKERHUB_TOKEN | docker login --username $DOCKERHUB_USER --password-stdin

before_script: pip install docker-compose

script:
  - docker-compose run --rm app sh -c "python manage.py wait_for_db && python manage.py
test && flake8"
```

Now your Docker build should work as expected.