Python API for Docker

## Introduction to Docker

Docker is a container management program.

A container is a standardized unit to develop, ship, and deploy an application or an application suite (group of programs). (Docker, 2023)

A container contains all the apps and dependencies required to run an app. An image is a template that downloads and/or assembles the missing pieces. (Amazon, 2024)

## Introduction to Docker API

Python API for Docker: <https://docker-py.readthedocs.io/en/stable/> (Docker SDK, n.d.)

The Python SDK is a Python module that can be used in Python scripts to manipulate Docker, such as running a container, creating a service and terminating containers and images.

## 10/04/2024

Never had a clue what to do so here are the note I wrote in the Python file:

check if docker is running, raise exception if false.

Or don't and just go through a bunch of files per step.

Things one can do:

list containers:

client.containers.list()

run containers:

client.containers.run("fedora:latest", "echo hello world")

building containers:

docker build -t getting-started .

is the same as

client.images.build(path = "./", tag = "getting-started")

pulling:

client.images.pull(fedora:39) doesn't work

client.images.pull(platform="fedora:39") doesn't work

client.images.pull("fedora:latest") DOES

## 11/04/2024

At least I’m getting somewhere…

go to YouTube for Docker tutorials

follow videos and do your own thing

i.e. what can be done in Docker SHOULD be doable in PyDocker

PyDocker examples and tutorial

maybe install Anaconda or another useful program

this class two weeks time presentation (25th?)

## Bibliography

Amazon, 2024. *Docker Image vs Container - Difference Between Application Deployment Technologies - AWS*. [online] Amazon Web Services, Inc. Available at: <https://aws.amazon.com/compare/the-difference-between-docker-images-and-containers/> [Accessed 10 April 2024].

Docker, 2023. *What is a Container?* [online] Docker. Available at: <https://www.docker.com/resources/what-container/>.

Docker SDK, 2024. *Docker SDK for Python — Docker SDK for Python 4.4.4 documentation*. [online] docker-py.readthedocs.io. Available at: <https://docker-py.readthedocs.io/en/stable/> [Accessed 10 April 2024].