

# Overview

The goal for this assignment is to containerize the PhotoManager (assignment 2) and run it in a container. And also allow us to pass data to the container to utilize the PhotoManager.

## Architecture

There are 4 items in the source code directory.

**src/** is where the PhotoManager sits

**photos/** contains all the example photos

**requirement** is the dependency required by PhotoManger

**Dockerfile** is the Dockerfile used to build the image

## Software Functions

PhotoManger is able to 1) upload images to S3 and 2) list the metadata of images on S3.

# Instructions

Go to the source code directory and run the following to build the image  
**docker build -t assignment4 .**

```
→ Assignment4 docker build -t assignment4 .
[+] Building 1.5s (11/11) FINISHED

=> [internal] load build definition from Dockerfile
    0.0s
=> => transferring dockerfile: 84B
    0.0s
=> [internal] load .dockerignore
    0.0s
=> => transferring context: 2B
    0.0s
=> [internal] load metadata for docker.io/library/python:3.7
    1.4s
=> [1/6] FROM docker.io/library/python:3.7@sha256:c8ab54d05f9795da69954bf1e6268f11f9c380f54eec75a0cd86effea1703aac
    0.0s
=> [internal] load build context
    0.0s
=> => transferring context: 1.17kB
    0.0s
=> CACHED [2/6] WORKDIR /code
    0.0s
=> CACHED [3/6] COPY requirement .
    0.0s
=> CACHED [4/6] RUN pip install -r requirement
    0.0s
=> CACHED [5/6] COPY src/ .
    0.0s
=> CACHED [6/6] COPY photos/ .
    0.0s
=> exporting to image
    0.0s
=> => exporting layers
    0.0s
=> => writing image sha256:eb165909d2a4d831f8526438ef77df555b09e9d1f16fd6af8ec74565810cbc9b
    0.0s
=> => naming to docker.io/library/assignment4
    0.0s

Use 'docker scan' to run Snyk tests against images to find vulnerabilities and learn how to fix them
```

`docker run assignment4 "unsupported"`

Will show usage

```
→ Assignment4 docker run assignment4 "unsupported"
Usage: list
List all images

Usage: upload IMAGE [...]
Upload images
```

`docker run assignment4`

No data pass will run the ListPhotos function by default.

```
[→ Assignment4 docker run assignment4
"No Contents"]
```

`docker run assignment4 "upload england-london-bridge.jpg  
germany-english-garden.jpg"`

Let the PhotoManager upload 2 example photos.

```
[→ Assignment4 docker run assignment4 "upload england-london-bridge.jpg germany-english-garden.jpg"
"england-london-bridge.jpg uploaded"
"germany-english-garden.jpg uploaded"]
```

**docker run assignment4 "list"**

Will list 2 photos we just uploaded

```
→ Assignment4 docker run assignment4 "list"
[
  {
    "Date Taken": "2018:08:22 13:13:41",
    "Device Used": "Pixel 2",
    "Location": "Butlers Wharf, 40 Shad Thames, London SE1 2YA, UK",
    "User File": "england-london-bridge.jpg",
    "url": "https://6225-photo-manager.s3.us-east-2.amazonaws.com/england-london-bridge.jpg"
  },
  {
    "Date Taken": "2018:11:04 12:09:44",
    "Device Used": "Pixel 2",
    "Location": "Schwabinger Bach, 80538 M\u00fcrnchen, Germany",
    "User File": "germany-english-garden.jpg",
    "url": "https://6225-photo-manager.s3.us-east-2.amazonaws.com/germany-english-garden.jpg"
  }
]
```

## Code

<https://github.com/joyce0216/CSYE6225/tree/main/Assignment4>