



docker

สถาบัน ไอเอ็มซี



บริษัท สยามชำนาญกิจ จำกัด และเพื่อนพ้องน้องพี่

Workshop

Docker with **web** application

Linking containers with Docker **networks**

Persist data to your Docker host

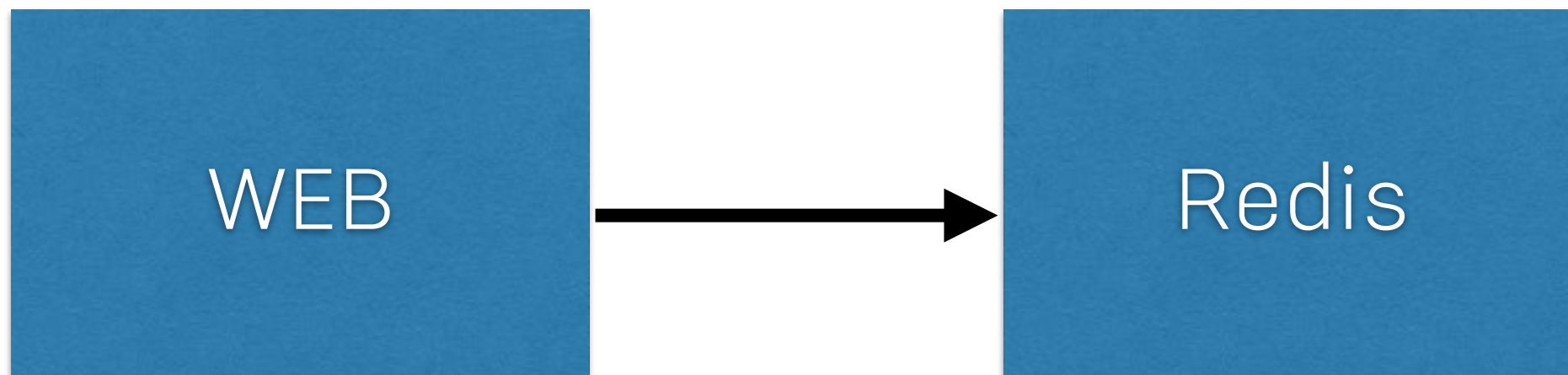
Share data between containers

Clean up



Web application with Python

Flask and Redis



Let's workshop



Problems

Python ?

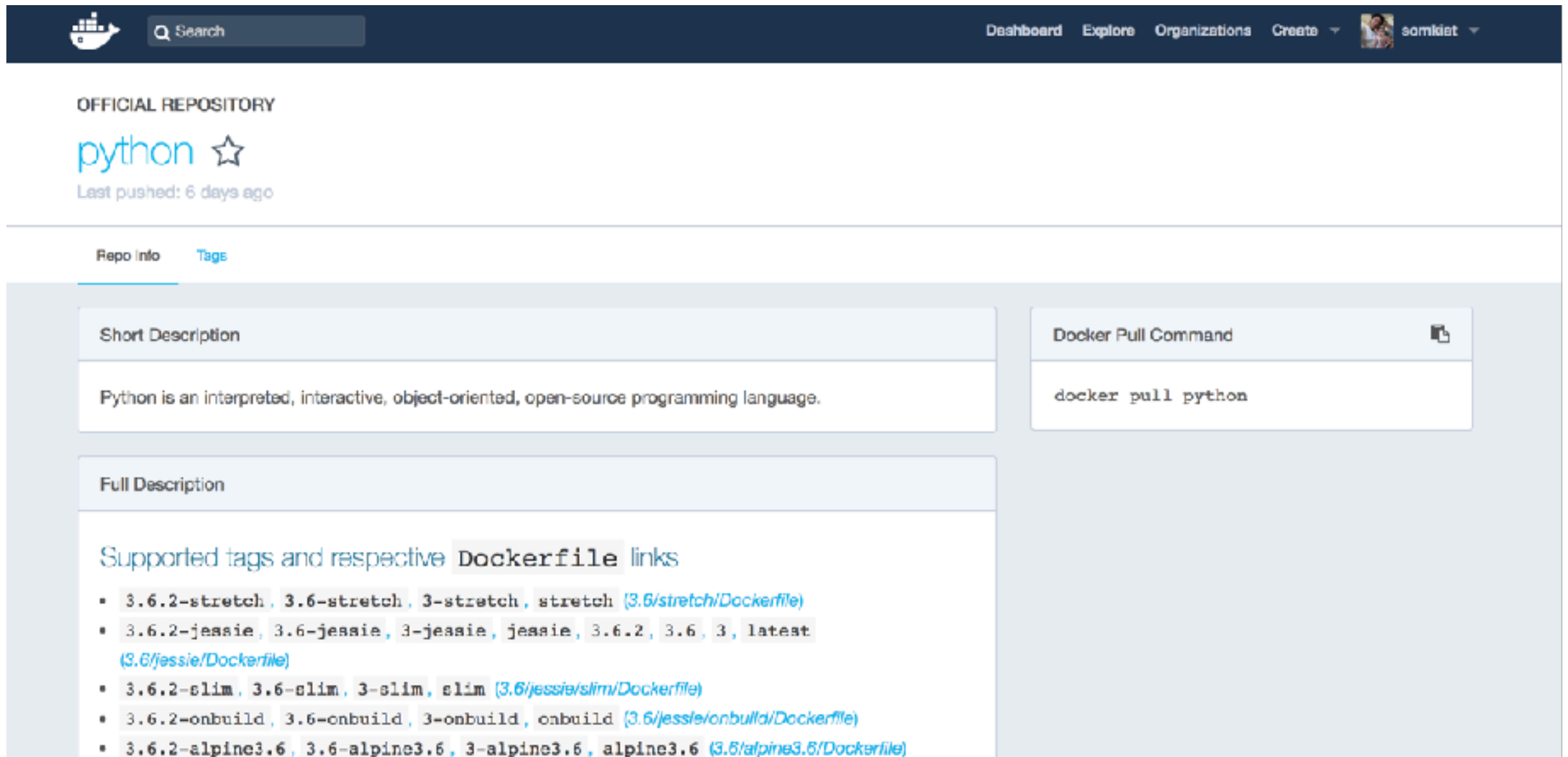
Flask ?

Redis ?

Base Docker images ?



Python image



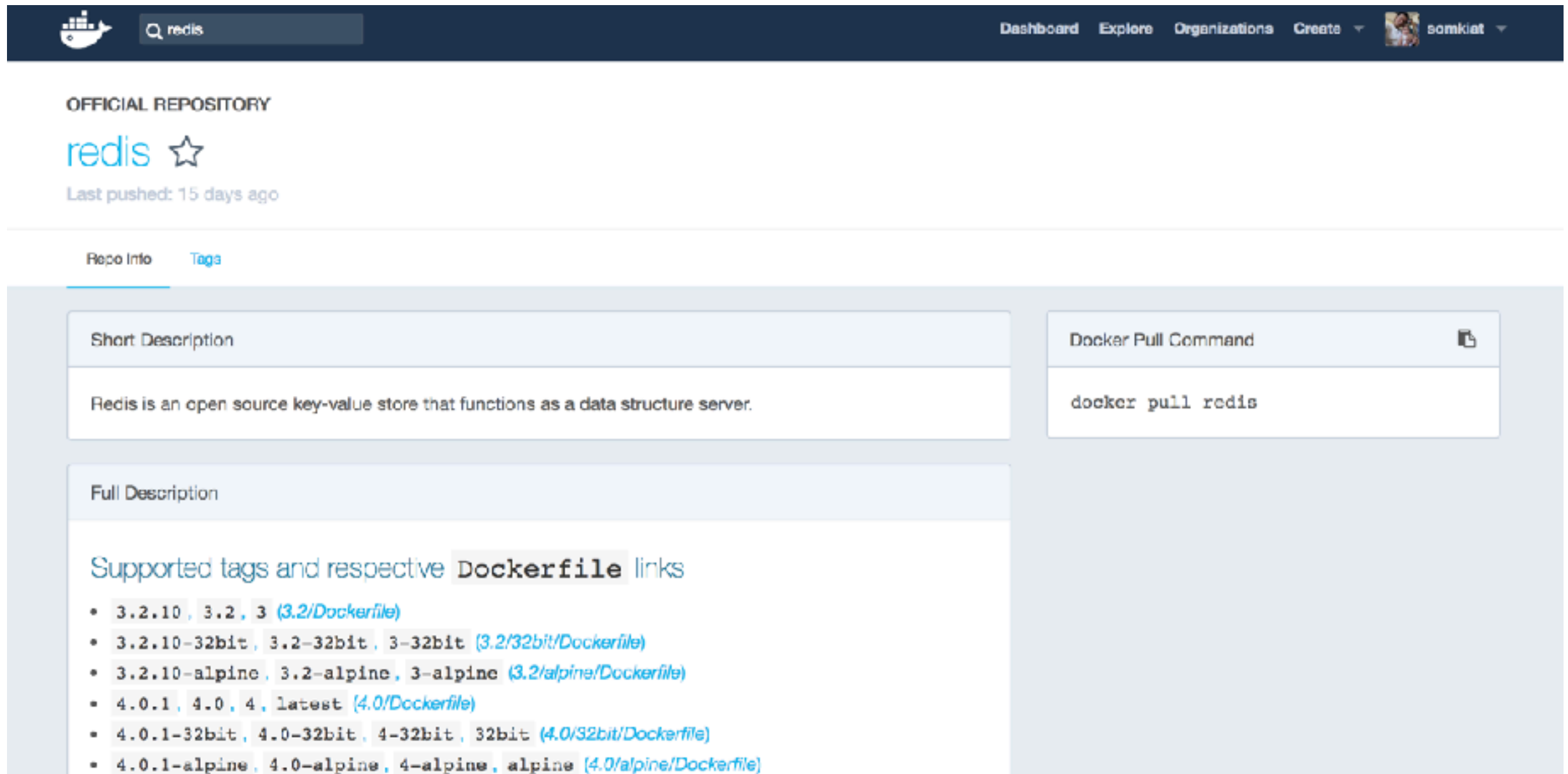
The screenshot shows the Docker Hub interface for the official Python repository. At the top, there's a dark blue navigation bar with the Docker logo, a search bar, and links to Dashboard, Explore, Organizations, Create, and a user profile (somiak). Below this, the repository is identified as the 'OFFICIAL REPOSITORY' for 'python', with a star icon and a note 'Last pushed: 6 days ago'. The main content area has two tabs: 'Repo info' (selected) and 'Tags'. Under 'Repo info', there are two sections: 'Short Description' and 'Full Description'. The 'Short Description' states: 'Python is an interpreted, interactive, object-oriented, open-source programming language.' To the right of this is a 'Docker Pull Command' box showing the command: `docker pull python`. The 'Full Description' section contains a list of supported tags and their respective Dockerfile links:

- 3.6.2-stretch, 3.6-stretch, 3-stretch, stretch ([3.6/stretch/Dockerfile](#))
- 3.6.2-jessie, 3.6-jessie, 3-jessie, jessie, 3.6.2, 3.6, 3, latest ([3.6/jessie/Dockerfile](#))
- 3.6.2-slim, 3.6-slim, 3-slim, slim ([3.6/jessie/slim/Dockerfile](#))
- 3.6.2-onbuild, 3.6-onbuild, 3-onbuild, onbuild ([3.6/jessie/onbuild/Dockerfile](#))
- 3.6.2-alpine3.6, 3.6-alpine3.6, 3-alpine3.6, alpine3.6 ([3.6/alpine3.6/Dockerfile](#))

https://hub.docker.com/_/python/



Redis image



The screenshot shows the Docker Hub interface for the official Redis repository. At the top, there's a navigation bar with the Docker logo, a search bar containing 'redis', and links for Dashboard, Explore, Organizations, and Create. A user profile 'somkiat' is visible on the right. Below the navigation bar, the repository is identified as 'OFFICIAL REPOSITORY' for 'redis', with a star icon and a note 'Last pushed: 15 days ago'. The main content area has tabs for 'Repo Info' and 'Tags'. Under 'Repo Info', there's a 'Short Description' section stating 'Redis is an open source key-value store that functions as a data structure server.' and a 'Full Description' section titled 'Supported tags and respective Dockerfile links'. This section lists several tags and their corresponding Dockerfile links, including 3.2.10, 3.2, 3, 3.2.10-32bit, 3.2-32bit, 3-32bit, 3.2/alpine, 3-alpine, 4.0.1, 4.0, 4, latest, 4.0/32bit, 4-32bit, 32bit, and 4.0/alpine. To the right of the description, there's a 'Docker Pull Command' section showing the command 'docker pull redis'.

Short Description

Redis is an open source key-value store that functions as a data structure server.

Full Description

Supported tags and respective Dockerfile links

- 3.2.10, 3.2, 3 (3.2/Dockerfile)
- 3.2.10-32bit, 3.2-32bit, 3-32bit (3.2/32bit/Dockerfile)
- 3.2.10-alpine, 3.2-alpine, 3-alpine (3.2/alpine/Dockerfile)
- 4.0.1, 4.0, 4, latest (4.0/Dockerfile)
- 4.0.1-32bit, 4.0-32bit, 4-32bit, 32bit (4.0/32bit/Dockerfile)
- 4.0.1-alpine, 4.0-alpine, 4-alpine, alpine (4.0/alpine/Dockerfile)

Docker Pull Command

```
docker pull redis
```

https://hub.docker.com/_/redis/



Step to run web

Install Python and PIP

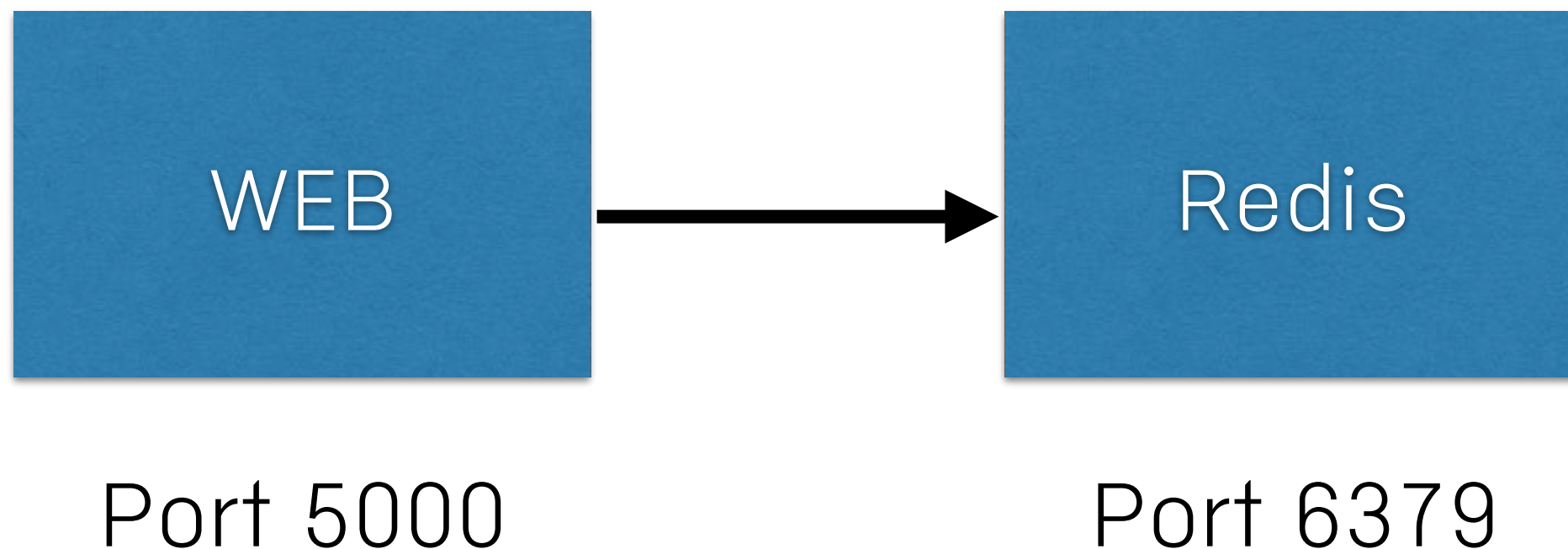
Download libraries with PIP

Start web server with Flask



Web application with Python

Flask and Redis



Persist data to Docker host



Create volume

```
$docker volume create web_redis
```



Detail of volume

`$docker volume ls`

`$docker volume inspect web_redis`



Add volume to container

```
$docker container run ...  
-v web_redis:/data
```



Resources

<https://github.com/up1/course-introduction-docker>

