

Docker Registry

Agenda



In this session, you will learn about:

- Understanding Docker Registry
- How to Setup Local Docker Registry
- Working with Local Docker Registry
- Working with Docker Hub

What is Docker Registry?

- The Registry is a stateless, highly scalable server side application that stores and lets you distribute Docker images.
- It serves as a target for your **docker image push** & **docker image pull** commands.

What is the use-case?

- You should use the Registry if you want to:
 - Tightly control where your images are being stored
 - Fully own your images distribution pipeline
 - Integrate image storage and distribution tightly into your in-house development workflow

Terminology - Docker Registries

- **Image**

- An image is essentially a template for Docker containers. It consists of a manifest and an associated series of layers.

- **Layer**

- A layer represents a filesystem difference.
- An image's layers are combined together into a single image that forms the base for a container's filesystem.

Terminology - Docker Registries (Cont.)

- **Registry**

- A registry is a content delivery and storage system for named Docker images.

- **Repository**

- A repository is simply a collection of different versions for a single Docker image.
- Similar to a git repository.

Run the local Registry

- The registry Docker image is configured to start on port 5000 in the container, so we will expose the host port also as 5000.
- You can launch the registry via the following command:

```
docker container run -d -p 5000:5000 --name  
localregistry registry
```

Basic Commands ..

- Tag the image so that it points to your registry
 - `docker image tag ubuntu localhost:5000/myfirstimage`
- Push it
 - `docker image push localhost:5000/myfirstimage`
- Pull it back
 - `docker image pull localhost:5000/myfirstimage`

Remove Local Registry

- Stop Registry and Remove all data
 - `docker container stop localregistry`
 - `docker container rm -v localregistry`

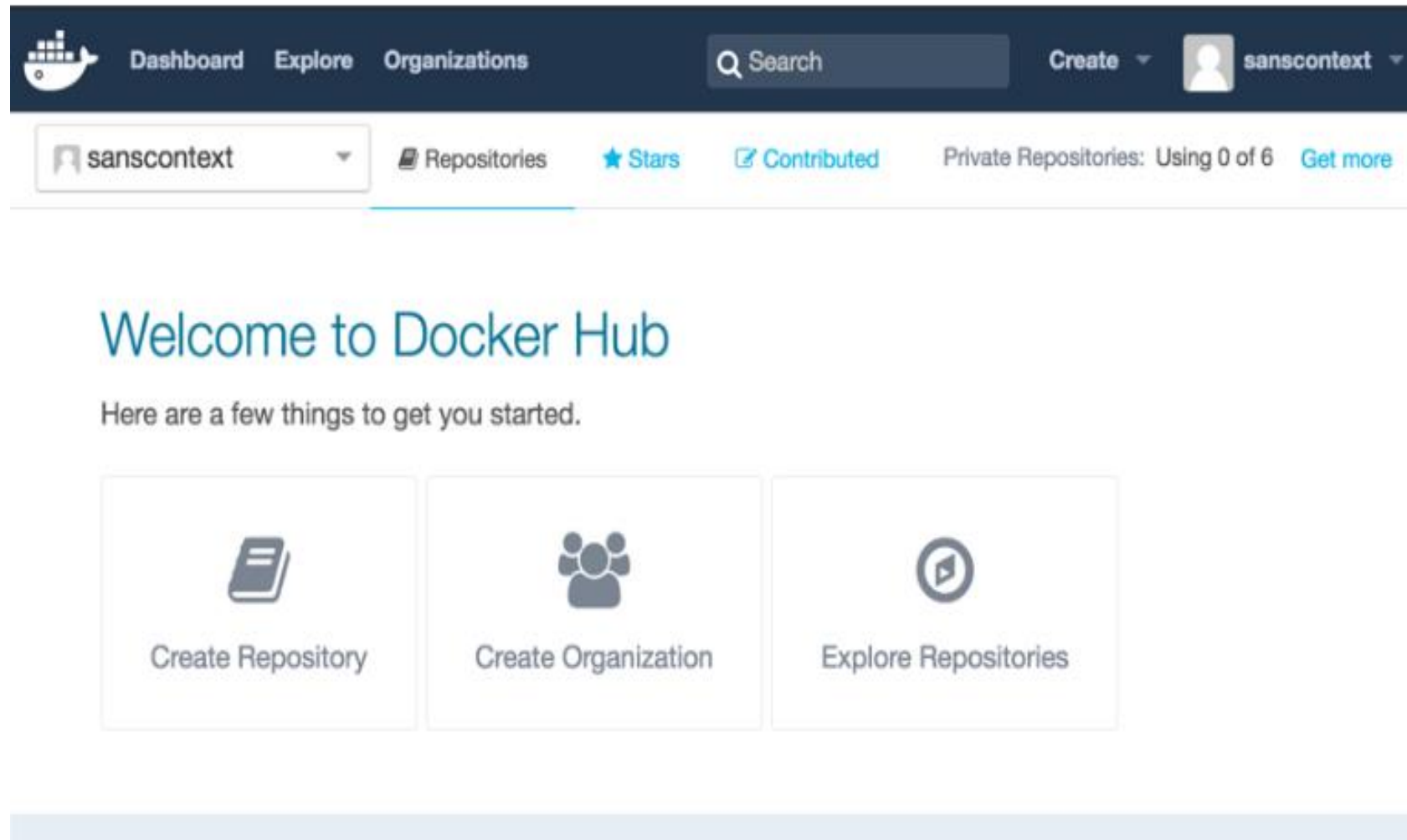
Docker Hub

- Docker Hub is a cloud-based registry service which allows you to:
 - Link to code repositories
 - Build your images and Test them
 - Stores manually pushed images
- Docker Hub is the default registry used when you docker image push or docker image pull.

Features

- **Image Repositories:** Find, manage, push and pull images from community, official
- **Automated Builds:** Automatically create new images when you make changes to a source code repository
- **Webhooks:** A feature of Automated Builds, Webhooks let you trigger actions after a successful push to a repository
- **Organizations:** Create work groups to manage access to image repositories

Docker Hub- Dashboard



Pushing & Pulling to Docker Hub

- **Getting an image to Docker Hub**

- Log in on <https://hub.docker.com/>
- Click on *Create Repository*.
- Choose a name and a description for your repository and click *Create*.
- Log into the Docker Hub from the command line
 - `docker login --username=yourhubusername --email=youremail@company.com`

Lab – Configuring Local Registry