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# *Install A Local Docker Registry*

## **Step 1: Install Docker**

*First, ensure Docker is installed on your system. If you don't have it installed, follow the instructions from Docker's official website.*

## **Step 2: Run a Local Docker Registry**

*Docker provides an official registry image that you can run locally. To set it up:*

***Pull the Registry image:***

**`docker pull registry:2`**

*This will download the official registry image from Docker Hub.*

***Run the Registry container:***

*You can run the registry using this command:*

**`docker run -d -p 5000:5000 --restart=always --name registry registry:2`**

*-d: Run in detached mode (in the background).*

*-p 5000:5000: Expose port 5000 of the container to port 5000 on the host.*

*--restart=always: Automatically restart if it crashes*

*--name registry: Name the container "registry."*

*registry:2: Use the version 2 of the official Docker registry.*

***Verify the Registry is Running:***

*You can check if the registry is running by accessing it via a browser or using curl:*

**curl http://localhost:5000/v2/**

**\* localhost = IP Address \***

*If the registry is running, it will return a JSON response:*

*{*

### **Step 3: Configure Docker to Trust Your Local Registry**

*By default, Docker is not configured to push to a registry that's not secured with HTTPS. However, for a local setup, you can configure Docker to allow pushing to an insecure registry.*

#### ***Edit Docker Daemon Configuration:***

*On most systems, you will need to modify the Docker daemon configuration file to allow pushing to the local registry.*

*Linux: Edit /etc/docker/daemon.json and add the following:*

**sudo nano /etc/docker/daemon.json**

```
{  
  "insecure-registries" : ["localhost:5000"]  
}
```

**\* localhost = IP Address \***

#### ***Restart Docker:***

*After modifying the configuration file, restart the Docker daemon:*

```
sudo systemctl restart docker
```

## **Step 4: Tag and Push an Image to Your Local Registry**

*Before you can tag the image, you need to pull it from Docker Hub:*

```
docker pull my-image
```

*\* my-image = Like Nginx , Apache , Wordpress \**

*Now that your local registry is up and running, you can Tag and push Docker images to it.*

### ***Tag the Image:***

*Let's say you have an image named my-image. Tag it for your local registry:*

```
docker tag my-image localhost:5000/my-image
```

*\* localhost = IP Address \**

*\* my-image = Like Nginx , Apache , Wordpress \**

### ***Push the Image to the Local Registry:***

*Once the image is tagged, you can push it:*

```
docker push localhost:5000/my-image
```

*\* localhost = IP Address \**

*\* my-image = Like Nginx , Apache , Wordpress \**

***You should see output similar to this:***

*The push refers to repository [localhost:5000/my-image]*

*123456789abc: Pushed*

## Step 5: Pull the Image from Your Local Registry

*To pull the image from your local registry, you can use:*

**docker pull localhost:5000/my-image**

*\* localhost = IP Address \**

*\* my-image = Like Nginx , Apache , Wordpress \**

*This will download the image from your local registry.*

## Troubleshooting

***1.Permission Issues (Linux): If you encounter permission errors when trying to access the Docker daemon, ensure your user is part of the docker group:***

**sudo usermod -aG docker \$USER**

*\* Then, log out and log back in \**

***2.Registry Not Starting: If you can't start the registry, check Docker's logs:***

**docker logs registry**

***3.Insecure Registry Warning: Docker may still warn about insecure registries. You can ignore this warning for a local setup by using the "insecure-registries" configuration mentioned earlier.***

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