

Week4

Lab4

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Class/Instructor: CS430P/ Dr. Wu-Chang
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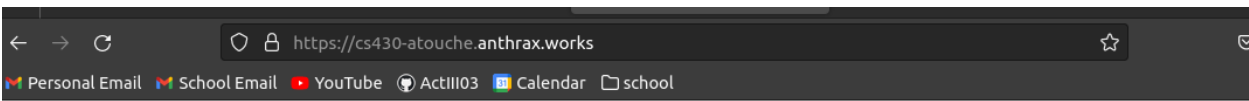
1. Lab4

1.1. nginx Compute Engine Guestbook

1.2. Docker Guestbook

nginx Compute Engine Guestbook ([Link](#))

- ☐ 1. Compute Engine VM
 - ☐ Configure instance
 - ☐ Register a DNS name for VM
 - ☐ Domain name: cs430-atouche.xyz
 - ☐ Checkout Code
 - ☐ Examine Code
 - ☐ Install the application
 - ☐ **Take a screenshot of the site along with its Let's Encrypt certificate and include it in your lab notebook**

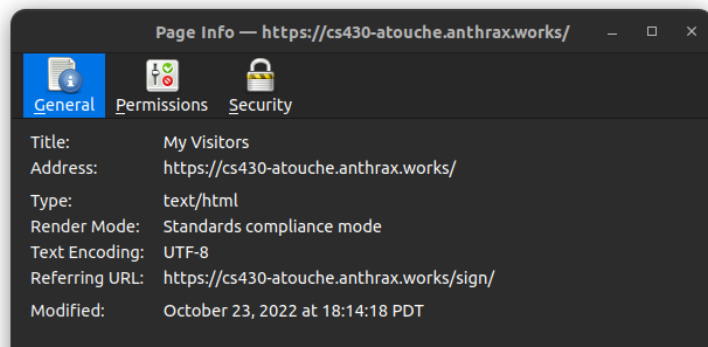


Guestbook

[Sign here](#)

Entries

atouche <atouche@pdx.edu>
signed on 2022-10-24
lab4.1.5 step



- ☐ Cleanup
 - ☐ Delete VM

Docker Guestbook ([Link](#))

- ☐ Containers
- ☐ Version 1: Ubuntu

```
Successfully tagged helloubuntu:latest
at03@at03-desktop:~/dev_folder/school/cs430P/lab/lab4/cs430-src/04_container_dockerhub$ docker image ls helloubuntu
REPOSITORY    TAG       IMAGE ID       CREATED        SIZE
helloubuntu   latest    3f99e7bc3b56   12 seconds ago 460MB
at03@at03-desktop:~/dev_folder/school/cs430P/lab/lab4/cs430-src/04_container_dockerhub$ atouche
```

- ☐ Show helloubuntu image
- ☐ curl port
- ☐ Build and run the Ubuntu-based container
- ☐ Docker commands
- ☐ Docker Hub Ubuntu
 - ☐ Login and push helloubuntu to docker.io
- ☐ Running from Docker Hub
 - ☐ **Take a screenshot of the container image and its size for your lab notebook.**

The screenshot shows the Docker Hub page for the 'actiii/helloubuntu' repository. The page displays the 'latest' tag, pushed 7 minutes ago, with a digest of '14e7d854990b'. The OS/ARCH is 'linux/amd64', and the last pull was 4 minutes ago. The compressed size is 187.97 MB. Below the Docker Hub page, a terminal window is open, showing the command 'atouche' being executed, with a progress bar indicating 1.8 MB of data being transferred.

- ☐ Version 2: Alpine
- ☐ Build and run the Alpine based container
 - ☐ **Take a screenshot of the image generated and its size for your lab notebook. How much smaller is the image than the Ubuntu one?**

```
Successfully built 8ae607349bc3
Successfully tagged helloalpine:latest
at03@at03-desktop:~/dev_folder/school/cs430P/lab/lab4/cs430-src/04_container_dockerhub$ docker image ls helloalpine
REPOSITORY    TAG       IMAGE ID       CREATED        SIZE
helloalpine   latest    8ae607349bc3   7 seconds ago 59.6MB
at03@at03-desktop:~/dev_folder/school/cs430P/lab/lab4/cs430-src/04_container_dockerhub$ atouche
```

☐ $\text{helloubuntu} - \text{helloalpine} = 460 \text{ MB} - 59.6 \text{ MB} = 400.4 \text{ MB}$

NOTE: I used actually sized and not compressed size like the one displayed on Docker hub

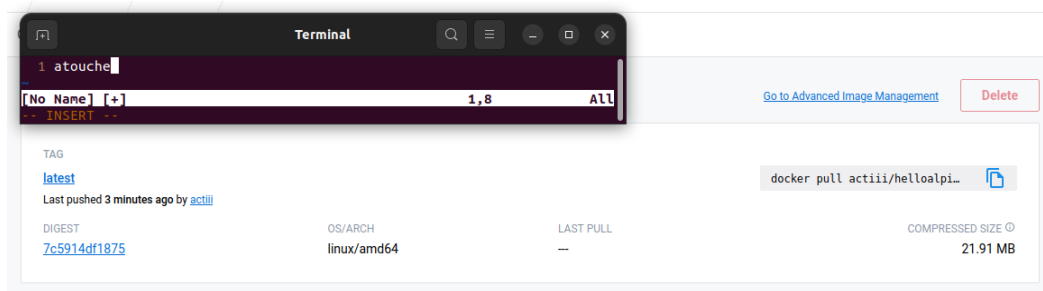
- ☐ Show the output of this command in a screenshot for your lab notebook. What might have happened?

```
</html>at03@at03-desktop:~/dev_folder/school/cs430P/lab/lab4/cs430-src/04_container_dockerhub$ docker exec -it helloa /bin/bash
OCI runtime exec failed: exec failed: unable to start container process: exec: "/bin/bash": stat /bin/bash: no such file or directory: unknown
at03@at03-desktop:~/dev_folder/school/cs430P/lab/lab4/cs430-src/04_container_dockerhub$ atouche
```

- ☐ Since image does not have a full fledged ubuntu image in helloa's layer, then bash and other typically Ubuntu OS related apps are probably not present which is why the image size difference is such.

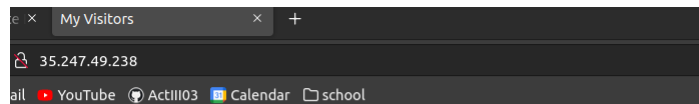
- ☐ Docker Hub Alpine

- ☐ Take a screenshot of the container image and its size.



- ☐ Compute Engine Ubuntu VM

- ☐ Create VM instance
- ☐ Install docker and run helloalpine
- ☐ Take a screenshot of the entry that includes the VM's external IP address for your lab notebook



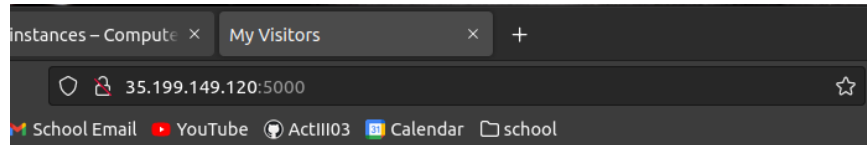
Guestbook

Sign [here](#)

Entries

atouche <atouche@pdx.edu>
signed on 2022-10-25
Hello Compute Engineer + Docker!

- ☐ Compute Engine ContainerOS VM deployment (1)
 - ☐ Create tcp-allow-5000 asdasd
- ☐ -
 - ☐ Create VM container instance w/ http-5000 tag
 - ☐ ssh into container and curl <http://localhost:5000>
 - ☐ **Take a screenshot of the entry that includes the VM's external IP address for your lab notebook**



- ☐ Clean up