

MSK

Lab 1

Docker images installation

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The goal of the laboratory was to familiarize ourselves with docker and pull five different docker images.

First step was to install ubuntu which was completed using the official guide <https://docs.docker.com/engine/install/ubuntu/> .

Successful execution of any docker command would confirm that the installation was successful e.g. *docker images*.

```
(base) zoobie@zoobieCOMP:~$ docker images
```

REPOSITORY	TAG	IMAGE ID	CREATED	SIZE
jup	latest	43bf53a18647	6 days ago	4.62GB
bioconductor/bioconductor_docker	devel	cda7f8509643	2 weeks ago	4.02GB
postgres	latest	c96f8b6bc0d9	2 weeks ago	314MB
jupyter/tensorflow-notebook	latest	31b16b2ac427	2 weeks ago	3.67GB
gcr.io/k8s-minikube/kicbase	v0.0.12-snapshot3	25ac91b9c8d7	2 months ago	952MB
hello-world	latest	bf756fb1ae65	10 months ago	13.3kB

To download a ready image from Docker hub *docker pull* comand is used, e.g. image for Nodejs:

```
hello-world          latest          bf756fb1ae65
(base) zoobie@zoobieCOMP:~$ docker pull node
Using default tag: latest
latest: Pulling from library/node
0400ac8f7460: Pull complete
fa8559aa5ebb: Pull complete
da32bfbbc3ba: Pull complete
e1dc6725529d: Pull complete
572866ab72a6: Pull complete
63ee7d0b743d: Pull complete
8c322550c0ed: Pull complete
3a9ca1673e31: Pull complete
64feb390fd3e: Pull complete
Digest: sha256:bf60a164bc588967ce6e3342c9d6508bf9ad2e7e2a1c237315596eab3e
Status: Downloaded newer image for node:latest
docker.io/library/node:latest
```

Then executing docker images command again can be used to verify that the image was pulled successfully.

```

docker: /opt/conda/bin/docker
(base) zoobie@zoobieCOMP:~$ docker images
REPOSITORY          TAG                 IMAGE ID
jupyter              latest             43bf53a18647
node                 latest             ca36fba5ad66
bioconductor/bioconductor_docker  devel             cda7f8509643
postgres             latest             c96f8b6bc0d9
jupyter/tensorflow-notebook  latest             31b16b2ac427
gcr.io/k8s-minikube/kicbase    v0.0.12-snapshot3 25ac91b9c8d7
hello-world          latest             bf756fb1ae65

```

The following command is used to run an image, for example a “jup” image that I had prepared which is an ubuntu image with jupyter notebook with Tenserflow hub examples installed:

`docker run -p 8888:8888 jup`

```

(base) zoobie@zoobieCOMP:~$ docker run -p 8888:8888 jup
[I 20:27:55.119 NotebookApp] Writing notebook server cookie secret to /home/jovyan/.local/share/jupyter/runtime/notebook_cookie_secret
[I 20:27:58.988 NotebookApp] JupyterLab extension loaded from /opt/conda/lib/python3.8/site-packages/jupyterlab
[I 20:27:58.988 NotebookApp] JupyterLab application directory is /opt/conda/share/jupyter/lab
[I 20:27:59.008 NotebookApp] Serving notebooks from local directory: /home/jovyan
[I 20:27:59.009 NotebookApp] Jupyter Notebook 6.1.4 is running at:
[I 20:27:59.009 NotebookApp] http://c35b812154f1:8888/?token=2fc40008a6a050c1b4c461dbe50e28c98c6036d41e8c40c4
[I 20:27:59.009 NotebookApp] or http://127.0.0.1:8888/?token=2fc40008a6a050c1b4c461dbe50e28c98c6036d41e8c40c4
[I 20:27:59.009 NotebookApp] Use Control-C to stop this server and shut down all kernels (twice to skip confirmation).
[C 20:27:59.067 NotebookApp]

```

The jupyter notebook is then available from the browser at localhost:8888:

