# 1. Install docker

1.1 To download and install docker, visit the official Docker website
(https://docs.docker.com/get-docker/)
1.2 To test the docker installation by command line:

```
docker run hello-world
```

Note: the windows user should configure WSL (Windows Subsystem for Linux)(https://docs.docker.com/desktop/wsl/)

# 2. Pull and run dockerHDDM

## 2.1 Open terminal & Run command line

```
user@DESKTOP:/$ docker pull hcp4715/dockerHDDM
user@DESKTOP:/$ docker run -p 8888:8888 -it --rm
hcp4715/dockerHDDM jupyter notebook

[C 06:50:52.342 NotebookApp]

    To access the notebook, open this file in a
browser:
        file:///home/jovyan/.local/share/jupyter
/runtime/nbserver-7-open.html
    Or copy and paste one of these URLs:
        http://92ea06ad8c6d:8888/?token=0ce749eb
    or http://127.0.0.1:8888/?token=0ce749eb
```
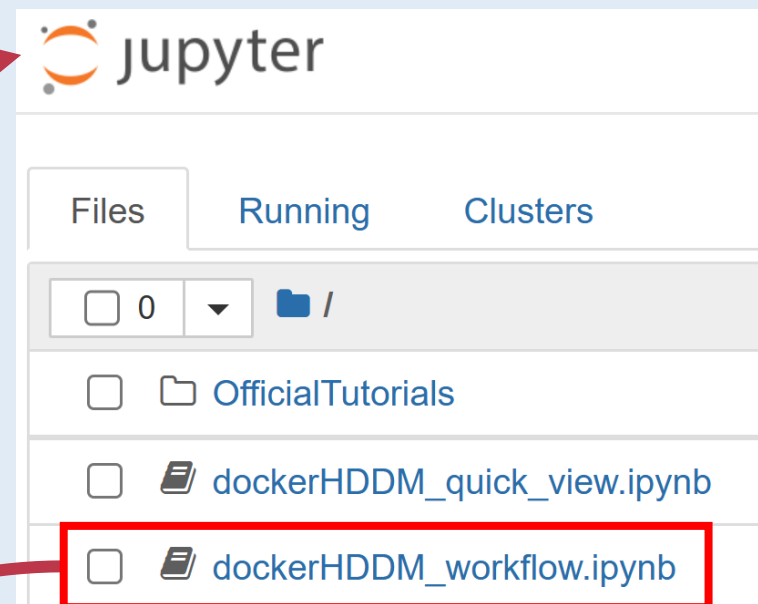
## 2.2 Open URL &Enter jupyter



jupyter

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☐ 📓 dockerHDDM_quick_view.ipynb
☐ 📓 dockerHDDM_workflow.ipynb

# 3. HDDM analysis workflow

## 3.1 Define models
In [1]: `m1=hddm.HDDM(data)`

## 3.2 Fitting model
In [2]: `infdata1=m1.sample(500,chains=4)`

## 3.3 Diagnosis
In [3]:
```
az.summary(infdata1)
az.plot_trace(infdata1)
```

## 3.4 Comparison
In [4]:
```
models={"m1":infdata1,
        "m2":infdata2}
az.compare(models)
```

## 3.5 Evaluation
In [5]: `az.plot_ppc(infdata1,...)`

## 3.6 Inference
In [6]: `az.plot_posterior(infdata1)`



data → Define models → m1 m1 ... mₙ → sampling → infdata1 infdata2 infdatan → diagnosis → comparison → infdata? winning model → evaluation / inference

ppc | posterior