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Basics of Dockers

Assignment no 1.4:

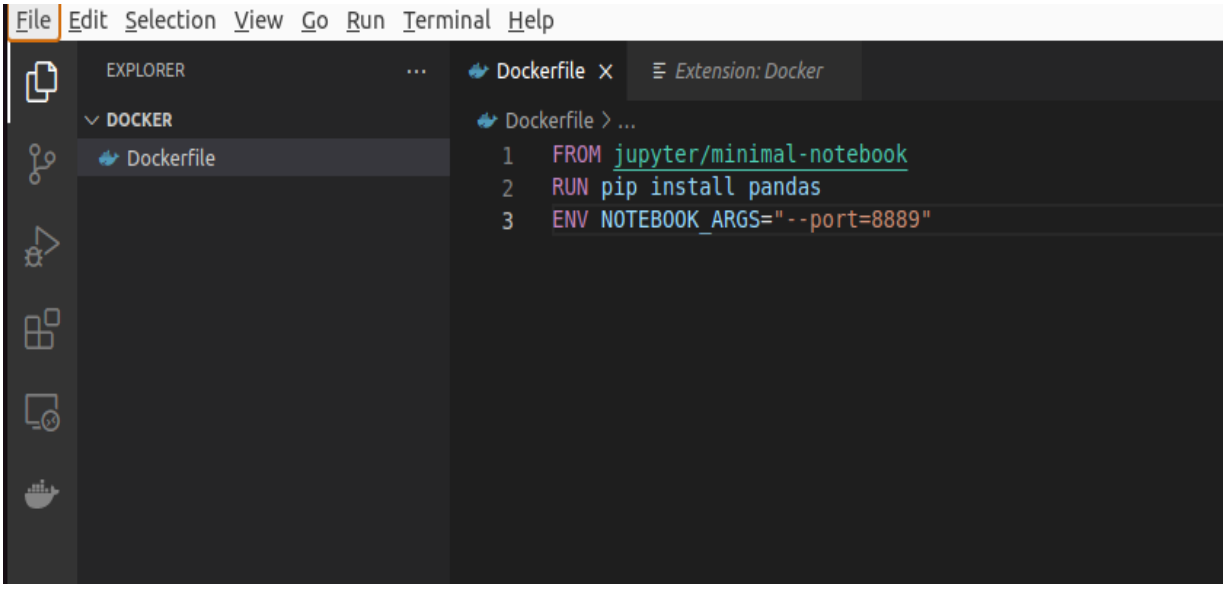
Build an image based on Jupyter Notebook (jupyter/minimal-notebook) with Pandas installed (pip install pandas)

Create a container from this image and use the NOTEBOOK_ARGS=--port=8889 environment variable to change the port Jupyter is exposed on

Verify you can access it on port 8889 and that Pandas are installed (type import pandas in a notebook).

Explanation of the Assignment:

Firstly, I made a folder and then I opened the folder in vs code and created a file named Dockerfile build an image based on jupyter Notebook (Jupyter/minimal notebook) with pandas installed (pip install pandas) and set the ENV NOTEBOOK_ARGS =" --PORT=8889"



Build the container:

```
(base) all@all-MS-7D35:~/Desktop/Docker$ docker build -t dockerfile .
[+] Building 225.3s (6/6) FINISHED
 => [internal] load .dockerignore
 => => transferring context: 2B
 => [internal] load build definition from Dockerfile
 => => transferring dockerfile: 121B
 => [internal] load metadata for docker.io/jupyter/minimal-notebook:latest
 => [1/2] FROM docker.io/jupyter/minimal-notebook
 => [2/2] RUN pip install pandas
 => exporting to image
 => => exporting layers
 => => writing image sha256:0346b04fed059e2343373876982f34d26440c977c7159ec6f7e7d7f99d4668bc
 => => naming to docker.io/library/dockerfile
```

Create a container from this image and use the NOTEBOOK_ARGS=--port=8889 environment variable to change the port Jupyter is exposed on.

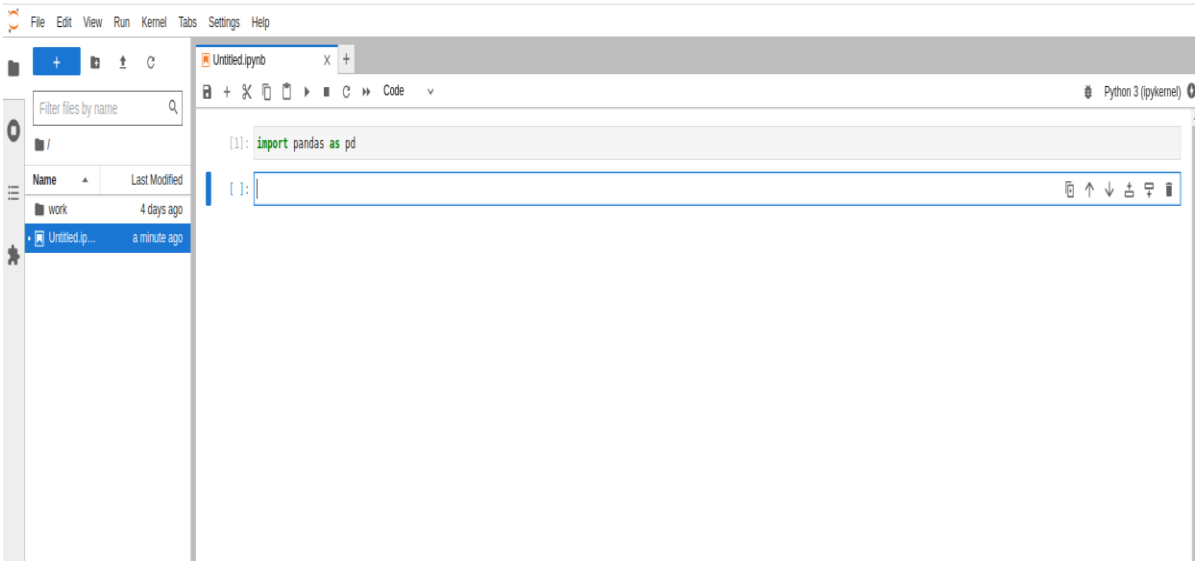
```
(base) all@all-MS-7D35:~/Desktop/Docker$ docker run -p 8889:8888 -e "NOTEBOOK_ARGS=--port=8888" dockerfile
Entered start.sh with args: jupyter lab --port=8888
Executing the command: jupyter lab --port=8888
[I 2023-04-07 08:52:56.086 ServerApp] Package jupyterlab took 0.0000s to import
[I 2023-04-07 08:52:56.089 ServerApp] Package jupyter_server_fileid took 0.0024s to import
[I 2023-04-07 08:52:56.092 ServerApp] Package jupyter_server_terminals took 0.0033s to import
[I 2023-04-07 08:52:56.119 ServerApp] Package jupyter_server_ydoc took 0.0258s to import
[I 2023-04-07 08:52:56.119 ServerApp] Package nbclassic took 0.0000s to import
[W 2023-04-07 08:52:56.122 ServerApp] A `_jupyter_server_extension_points` function was not found in nbclass
 used for now. This function name will be deprecated in future releases of Jupyter Server.
[I 2023-04-07 08:52:56.122 ServerApp] Package notebook_shim took 0.0000s to import
[W 2023-04-07 08:52:56.122 ServerApp] A `_jupyter_server_extension_points` function was not found in noteboo
l be used for now. This function name will be deprecated in future releases of Jupyter Server.
[I 2023-04-07 08:52:56.127 ServerApp] jupyter_server_fileid | extension was successfully linked.
```

Opened the notebook through link.

```
[C 2023-04-07 08:52:56.558 ServerApp]

    To access the server, open this file in a browser:
        file:///home/jovyan/.local/share/jupyter/runtime/jpserver-7-open.html
    Or copy and paste one of these URLs:
        http://3e381dac3427:8888/lab?token=3add22aec67b10c03d6ee5bce282571a48bd49fe77f70c9a
        http://127.0.0.1:8888/lab?token=3add22aec67b10c03d6ee5bce282571a48bd49fe77f70c9a
[I 2023-04-07 08:53:05.237 LabApp] Generating new user for token-authenticated request: 06df134c0a054e0f8f58fd01ed4c838e
[I 2023-04-07 08:53:07.398 LabApp] Build is up to date
[I 2023-04-07 08:53:11.065 ServerApp] Creating new notebook in
[I 2023-04-07 08:53:11.130 ServerApp] Writing notebook-signing key to /home/jovyan/.local/share/jupyter/notebook_secret
[I 2023-04-07 08:53:11.442 ServerApp] Kernel started: fe3c74ae-4bdc-42ed-a4e5-83e148dda20e
[I 2023-04-07 08:53:11.963 ServerApp] Connecting to kernel fe3c74ae-4bdc-42ed-a4e5-83e148dda20e.
[I 2023-04-07 08:53:11.988 ServerApp] Connecting to kernel fe3c74ae-4bdc-42ed-a4e5-83e148dda20e.
```

Verified pandas are installed.


File Edit View Run Kernel Tabs Settings Help
Filter files by name
/
Name
Last Modified
work
4 days ago
Untitled.ip...
a minute ago
Untitled.ipynb
Code
Python 3 (ipykernel)
[1]: import pandas as pd
[ ]: