UNIT :1.4

ASSIGNMENT 1:

- *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 is installed (type import pandas in a notebook).*

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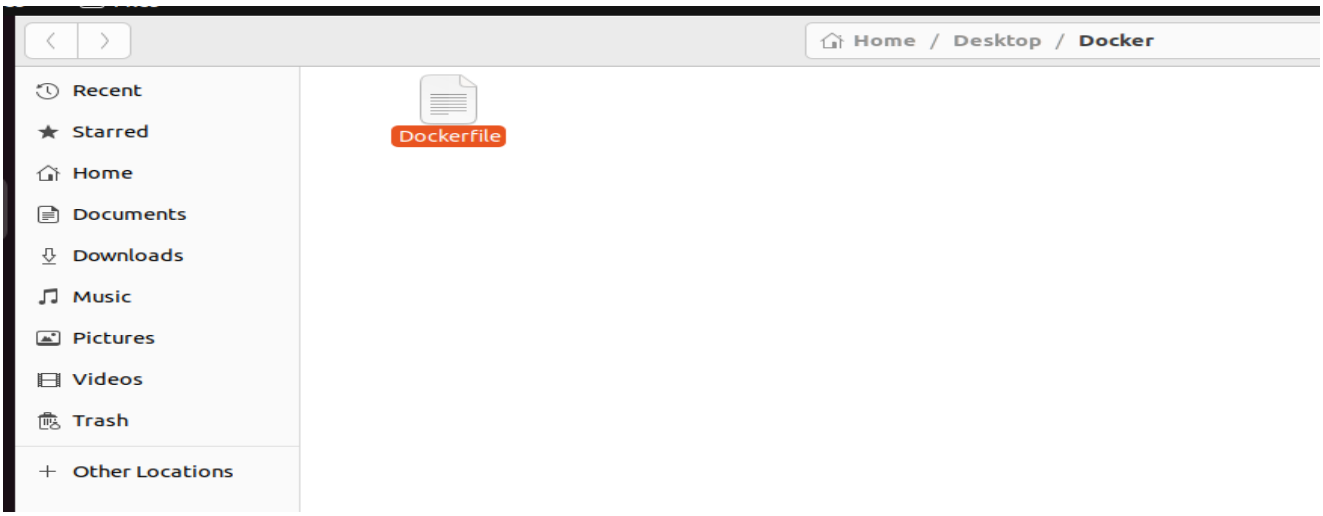
Explanation:

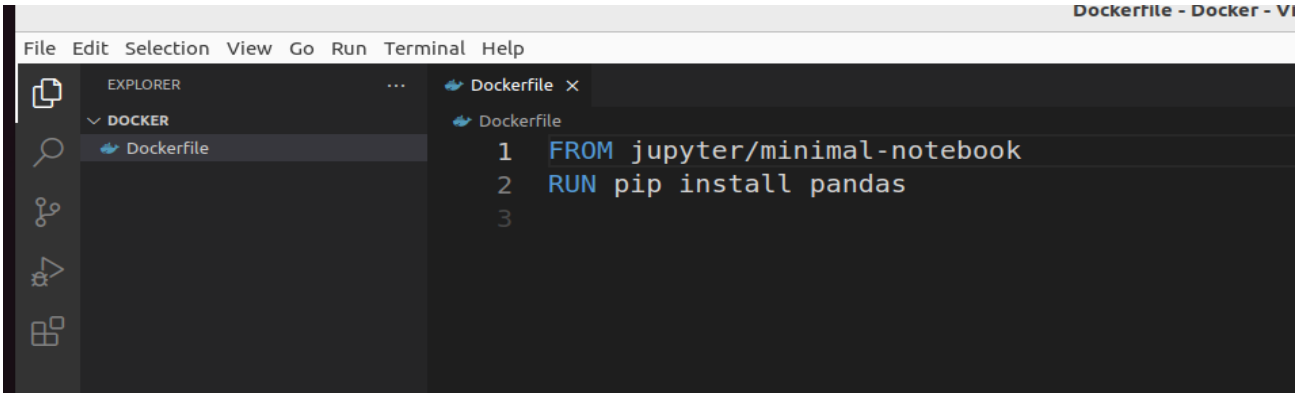
Step 1:

First we create a docker folder in which we create a file name docker file .



Step 2:

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



Step 3:

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

```
dell@dell-Latitude-7490:~/Desktop/Docker$ docker run -p 8889:8888 -e "NOTEBOOK_ARGS=--port=8888" docker_image
Entered start.sh with args: jupyter lab --port=8888
Executing the command: jupyter lab --port=8888
[I 2023-04-07 09:24:37.315 ServerApp] Package jupyterlab took 0.0000s to import
[I 2023-04-07 09:24:37.317 ServerApp] Package jupyter_server_fileid took 0.0019s to import
[I 2023-04-07 09:24:37.321 ServerApp] Package jupyter_server_terminals took 0.0034s to import
[I 2023-04-07 09:24:37.336 ServerApp] Package jupyter_server_ydoc took 0.0151s to import
[I 2023-04-07 09:24:37.336 ServerApp] Package nbclassic took 0.0000s to import
[W 2023-04-07 09:24:37.338 ServerApp] A `_jupyter_server_extension_points` function was not found in nbclassic. Instea
his function name will be deprecated in future releases of Jupyter Server.
[I 2023-04-07 09:24:37.338 ServerApp] Package notebook_shim took 0.0000s to import
[W 2023-04-07 09:24:37.338 ServerApp] A `_jupyter_server_extension_points` function was not found in notebook_shim. In
w. This function name will be deprecated in future releases of Jupyter Server.
[I 2023-04-07 09:24:37.341 ServerApp] jupyter_server_fileid | extension was successfully linked.
[I 2023-04-07 09:24:37.344 ServerApp] jupyter_server_terminals | extension was successfully linked.
[I 2023-04-07 09:24:37.347 ServerApp] jupyter_server_ydoc | extension was successfully linked.
[I 2023-04-07 09:24:37.351 ServerApp] jupyterlab | extension was successfully linked.
[W 2023-04-07 09:24:37.352 NotebookApp] 'ip' has moved from NotebookApp to ServerApp. This config will be passed to Se
[W 2023-04-07 09:24:37.352 NotebookApp] 'ip' has moved from NotebookApp to ServerApp. This config will be passed to Se
[I 2023-04-07 09:24:37.354 ServerApp] nbclassic | extension was successfully linked.
[I 2023-04-07 09:24:37.355 ServerApp] Writing Jupyter server cookie secret to /home/jovyan/.local/share/jupyter/runtim
[I 2023-04-07 09:24:37.510 ServerApp] notebook_shim | extension was successfully linked.
[I 2023-04-07 09:24:37.587 ServerApp] notebook_shim | extension was successfully loaded.
```

```
C 2023-04-07 09:24:37.626 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://ad9b0d5ced7d:8888/lab?token=166b8b1890aa0292a8298e91ad7ab9976cee5affe219e382
        http://127.0.0.1:8888/lab?token=166b8b1890aa0292a8298e91ad7ab9976cee5affe219e382
I 2023-04-07 09:24:49.860 LabApp] Generating new user for token-authenticated request: 20270cd5b65e44c082f7881233424a9
I 2023-04-07 09:24:52.370 LabApp] Build is up to date
I 2023-04-07 09:24:57.318 ServerApp] Creating new notebook in
I 2023-04-07 09:24:57.409 ServerApp] Writing notebook-signing key to /home/jovyan/.local/share/jupyter/notebook_secret
I 2023-04-07 09:24:57.677 ServerApp] Kernel started: a6a624c4-184f-4636-96e8-e54e4c7f3390
I 2023-04-07 09:24:58.286 ServerApp] Connecting to kernel a6a624c4-184f-4636-96e8-e54e4c7f3390.
I 2023-04-07 09:24:58.303 ServerApp] Connecting to kernel a6a624c4-184f-4636-96e8-e54e4c7f3390.
I 2023-04-07 09:24:58.344 ServerApp] Connecting to kernel a6a624c4-184f-4636-96e8-e54e4c7f3390.
I 2023-04-07 09:26:58.362 ServerApp] Saving file at /Untitled.ipynb
```

Step 4:

We can access on a port 8889 and write import pandas as pd.