

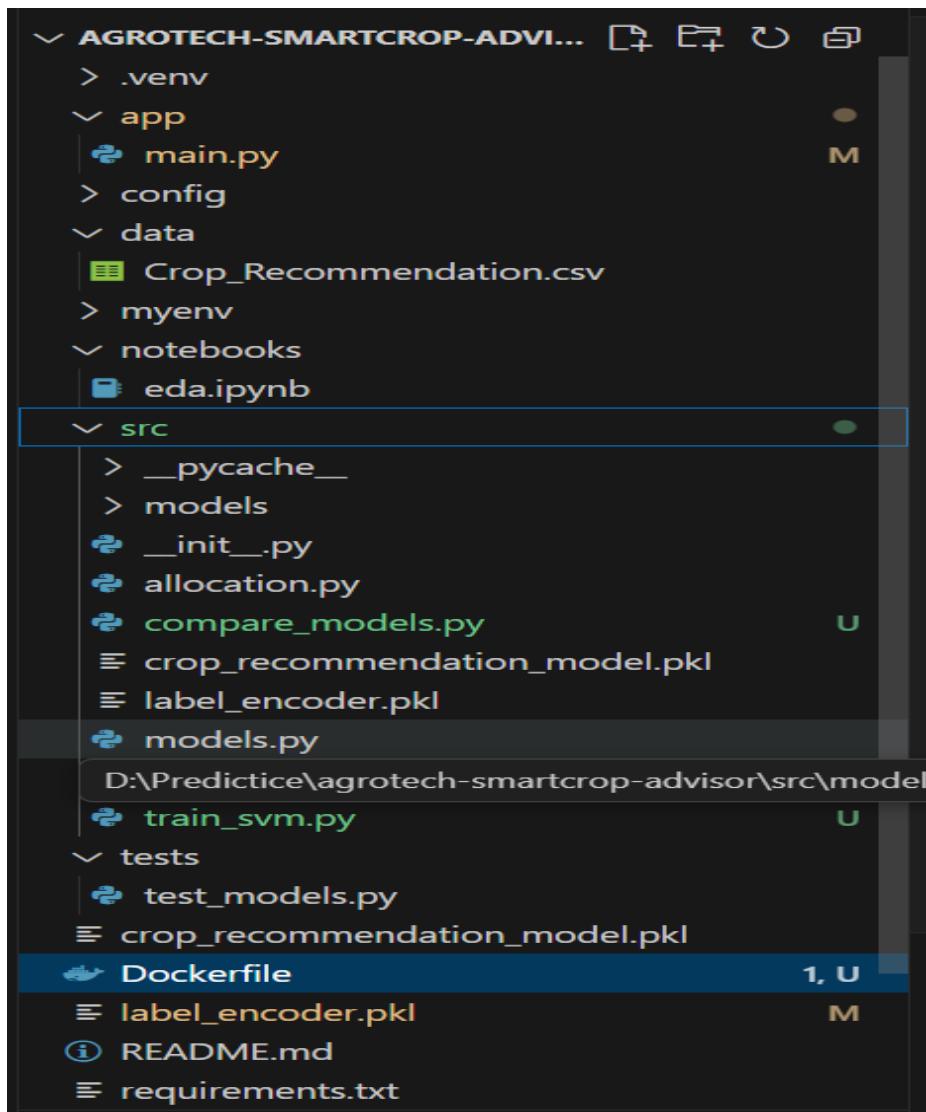
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Docker Demonstration

I have a Web application which was created using Streamlit in python. In this Activity I'm going to containerise the web application using Docker.

Project Structure:



DockerFile:

```
FROM python:3.10-slim
```

```
WORKDIR /app
```

```
COPY . /app
```

```
RUN pip install --no-cache-dir -r requirements.txt
```

```
EXPOSE 8501
```

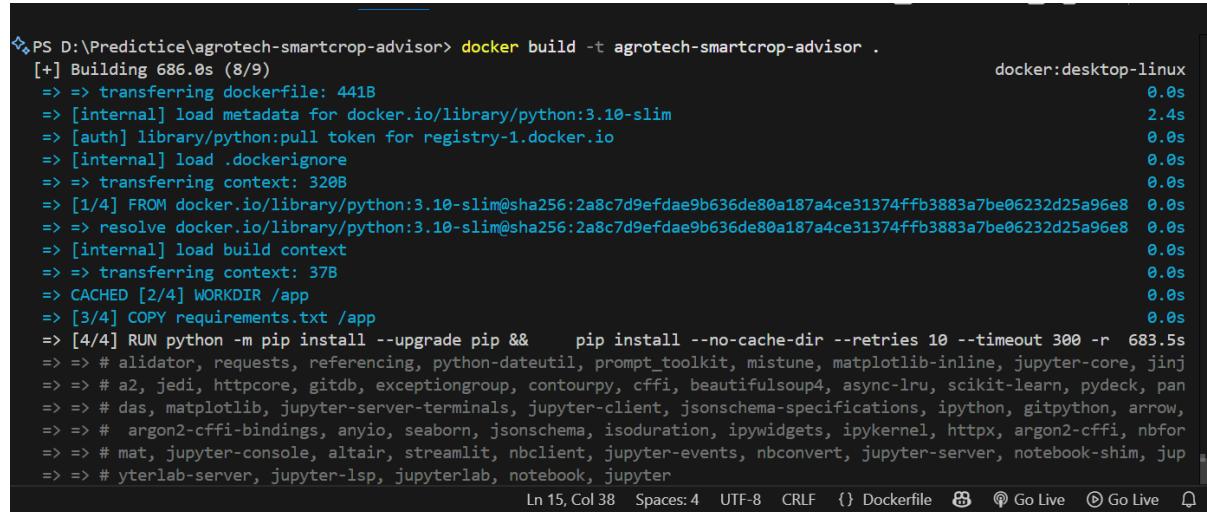
```
ENV STREAMLIT_SERVER_HEADLESS=true
```

```
ENV STREAMLIT_SERVER_ENABLECORS=false
```

```
ENV STREAMLIT_SERVER_PORT=8501
```

```
CMD ["Streamlit", "run", "app/main.py"]
```

Terminal Commands:



```
PS D:\Predictice\agrotech-smartcrop-advisor> docker build -t agrotech-smartcrop-advisor .
[+] Building 686.0s (8/9)
=> => transferring dockerfile: 441B
=> [internal] load metadata for docker.io/library/python:3.10-slim
=> [auth] library/python:pull token for registry-1.docker.io
=> [internal] load .dockerrcignore
=> => transferring context: 3208
=> [1/4] FROM docker.io/library/python:3.10-slim@sha256:2a8c7d9efdae9b636de80a187a4ce31374ffb3883a7be06232d25a96e8
=> => resolve docker.io/library/python:3.10-slim@sha256:2a8c7d9efdae9b636de80a187a4ce31374ffb3883a7be06232d25a96e8
=> [internal] load build context
=> => transferring context: 378
=> => CACHED [2/4] WORKDIR /app
=> [3/4] COPY requirements.txt /app
=> [4/4] RUN python -m pip install --upgrade pip &&     pip install --no-cache-dir --retries 10 --timeout 300 -r 683.5s
=> => # alidator, requests, referencing, python-dateutil, prompt_toolkit, mistune, matplotlib-inline, jupyter-core, jinj
=> => # a2, jedi, httpcore, gitdb, exceptiongroup, contourpy, cffi, beautifulsoup4, async-lru, scikit-learn, pydeck, pan
=> => # das, matplotlib, jupyter-server-terminals, jupyter-client, jsonschema-specifications, ipython, gitpython, arrow,
=> => # argon2-cffi-bindings, anyio, seaborn, jsonschema, isoduration, ipywidgets, ipykernel, httpx, argon2-cffi, nbfor
=> => # mat, jupyter-console, altair, streamlit, nbclient, jupyter-events, nbconvert, jupyter-server, notebook-shim, jup
=> => # yterlab-server, jupyter-lsp, jupyterlab, notebook, jupyter
```

```

    PS D:\Predictice\agrotech-smartcrop-advisor> docker run -d -p 8501:8501 --name smartcrop agrotech-smartcrop-advisor
    a3254ad74bafa2dc49747176d42fac27612bbdc9e2b4cb4e13804565094e3258
    PS D:\Predictice\agrotech-smartcrop-advisor>

```

Ln 20, Col 1 Spaces: 4 UTF-8 CRLF {} Dockerfile ⚡ Go Live ⚡ Go Live

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS GITLENS JUPYTER

p-advisor:latest
>>

```

    PS D:\Predictice\agrotech-smartcrop-advisor> docker images
    REPOSITORY          TAG      IMAGE ID   CREATED        SIZE
    hariprasathr24/agrotech-smartcrop-advisor   latest   607660101a34  10 minutes ago  1.36GB
    agrotech-smartcrop-advisor                   latest   607660101a34  10 minutes ago  1.36GB
    ubuntu              latest   66460d557b25  4 weeks ago   117MB
    hello-world         latest   56433a6be3fd  2 months ago   20.3kB
    PS D:\Predictice\agrotech-smartcrop-advisor> docker push hariprasathr24/agrotech-smartcrop-advisor:latest
    >>
    The push refers to repository [docker.io/hariprasathr24/agrotech-smartcrop-advisor]
    0c14a5bb2d51: Pushed
    964059bea34a: Pushed
    03b7f5f69b04: Pushed
    a09dc670095e: Pushed
    215d230d1553: Pushed
    c3eb7d6d81a7: Pushed
    d7ecded7702a: Pushed
    cfbba6d6670cc: Pushed
    latest: digest: sha256:607660101a34a0e8d074ce3c4267394fe6210d046aee2b4f6fdbf66c726de6cc size: 856
    PS D:\Predictice\agrotech-smartcrop-advisor>

```

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Link for image in DockerHub:

<https://hub.docker.com/r/hariprasathr24/agrotech-smartcrop-advisor>

Docker desktop:

