

The notebook by the name **Ageing_Signs.ipynb** was used to train the model to classify and localize different signs of ageing on a person's face. This notebook trains and saves the model using python scripts (exporter_main_v2.py, generate_tfrecord.py, model_main_tf2.py) which are also attached in the same zipped folder.

The trained model was saved to be reused in the folder **Trained_model**, available in the zipped folder as well.

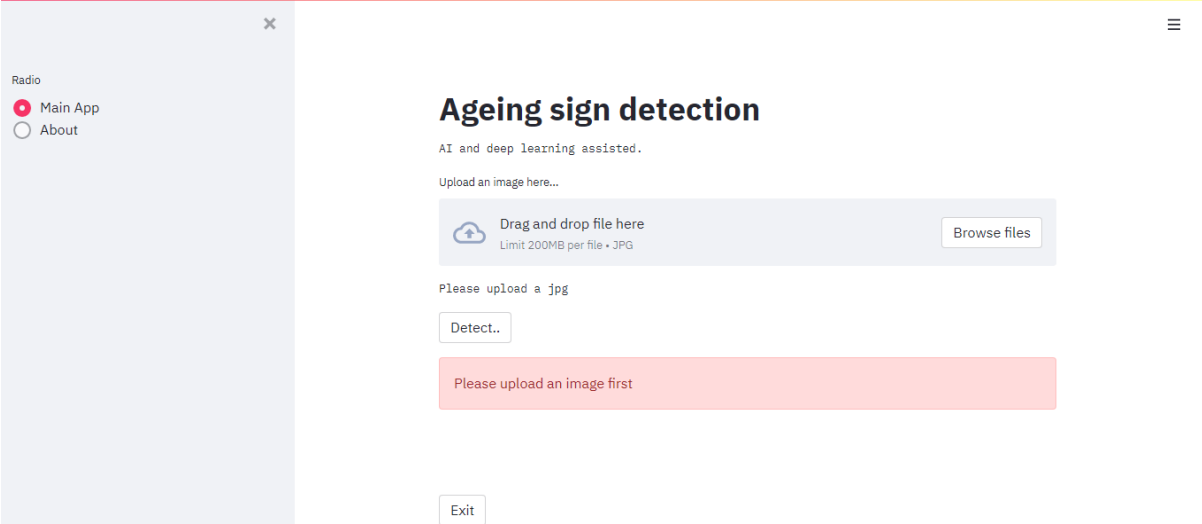
How to use the web application?

- Open the notebook by the name **Age_sign_detection_app.ipynb**.
- This notebook contains 4 executable cells
- First cell installs all the modules necessary and downloads the trained_model from google drive through a link and downloads the web application by the name **Jon.py**(also attached in the zipped folder) and other 3 cells deploy the web app and generates a URL to use the app.
- To use the web app run all the 4 cells and click on the link generated in the **3rd cell** after running all the cells. This will open the web app which we deployed.

```
[ ] !curl -s http://localhost:4040/api/tunnels | python3 -c \
    'import sys, json; print("Execute the next cell and the go to the following URL: " + json.load(sys.stdin)["tunnels"][0]["public_url"])'
```

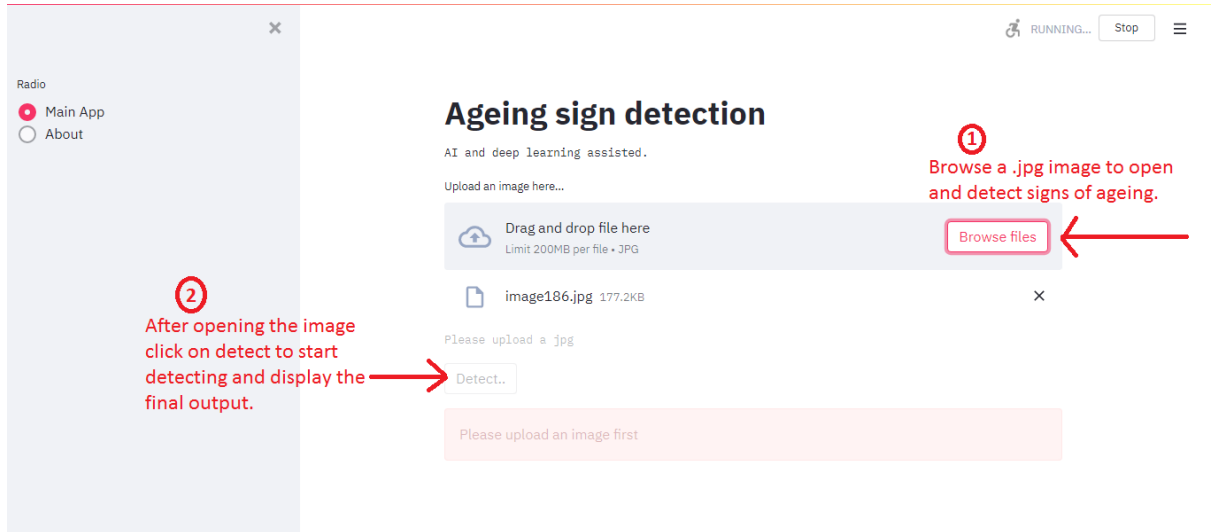
Execute the next cell and the go to the following URL: <https://4a152a24dcba.ngrok.io>

- This is how the web app is supposed to look like after clicking on the link generated in the 3rd cell.



The screenshot shows a web application titled "Ageing sign detection". On the left, there is a sidebar with a "Radio" button group containing "Main App" (selected) and "About". The main content area has the title "Ageing sign detection" and the subtitle "AI and deep learning assisted.". Below this, it says "Upload an image here...". There is a large light blue box with a cloud icon and the text "Drag and drop file here" and "Limit 200MB per file • JPG". To the right of this box is a "Browse files" button. Below the box, it says "Please upload a jpg". There is a "Detect.." button. Below that, there is a red error message box that says "Please upload an image first". At the bottom, there is an "Exit" button.

- Browse and detect.



- 4th cell will keep running while the app is being used and if the app is no longer needed to be used then the 4th cell must be stopped running.

