TEAM 10

ACUTE INFARCT LOCATION PREDICTION

PROBLEM STATEMENT:
Our aim is to classify the image into classes where each class indicates the region of infection of Acute infarct disease.

DATA:
Source of dataset: Prof Kousik Sankar

DATASET

- 50 CASES
    - DWI.jpg
    - FLAIR.jpg
    - ADC.jpg
- PDF with mapping of Cases to Region of infection

REQUIREMENT:

- Openvino
- Pandas
- Numpy
- Matplotlib
- Scikit-learn
- Keras
- Tkinter

STEPS :

1.RUN JUPYTER NOTEBOOK

- In a terminal or command window, navigate to the top-level project directory ACUTE_INFRACT/ (that contains this README) and run one of the following commands:
- ipython notebook Acute_infarct.ipynb

  Or

- jupyter notebook Acute_infarct.ipynb
- This will open the Jupyter Notebook software and project file in your browser.

2.RUN THE INFERENCE IMAGE IN COMMAND PROMPT

Convert the .pb file created from jupyter notebook into .xml and .bin file using the following steps:

- [1] cd C:\Program Files (x86)\IntelSWTools\openvino_2019.3.379\deployment_tools\model_optimizer
- [2] python mo_tf.py --input_model "path of .pb file" --output_dir "destination path for .xml" --model_name mri_infer --input_shape [1,32,32,3]

Setup openvino variables

- [3] cd C:\Program Files (x86)\IntelSWTools\openvino\bin
- [4] setupvars.bat

For running inference file

- [6] python mri_predict.py -i "path to inference image" -d "CPU" -m "path to .xml file"

CONCLUSION:

A model with train accuracy of 92% and test accuracy of 42% is achieved