**Running the Code**

* Download the dataset zip from the following drive link: [Dataset Zip](https://drive.google.com/file/d/1UFKHQn73O11uorm4on8t5D1BJpXlb3Z6/view?usp=drive_link).
* Upload the downloaded zip file to your Google Drive.

1. **Open a Colab Notebook:**
   * Upload and open the Colab notebook provided **(Group\_IVP\_7.ipynb)** using Google Colab.
   * Connect to the runtime. To reduce execution time, select the GPU runtime.
2. **Upload Files to Colab:**
   * Open the "Files" section in Colab and upload the following files:
     + **req.txt**
     + **test.py**
   * Create two folders named “results” and “models”.
3. **Run the Code:**
   * Execute the code pasted in the Colab cell.
   * The code will prompt you to connect to Google Drive. Allow access to Google Drive.
   * The code will then start running the code and unzipping the training dataset. (Make sure to replace the path to the zip file in the Zipfile code with your path).
   * This will create the data folder containing the dataset.
   * Now run the code to train the model.
   * This will take approximately 8 hrs to train the model. Make sure that the colab notebook does not crash and closely monitor the notebook so that the runtime does not get disconnected if left idle.
4. **After the Model is trained:**
   * Download the model to your machine.
   * Now upload the model to your google drive.
   * Now create a new cell and paste the code provided in testing.py to test the code.
   * In the file section upload the image that you want to test on and replace the path with the path of the image in the code (Change the variable image\_path).
   * Run the code to get the classification.
5. **Note:**
   * **Training using the GPU would take approximately 8 hrs, otherwise if run using CPU it could take some days.**
   * Ensure that you have the required permissions to access the provided Google Drive link.
   * Follow the instructions in the Colab notebook to complete the setup and run the code.
   * **Due to technological limitations images around 4mb or greater crash the google colab notebook as the notebook is not able to handle both the image and the model causing the ram in the notebook to reach its limit thus crashing the runtime.**
   * **If you are unable to run the code, please refer to the videos provided.**