Overview

An interface for processing DR images through the CNN model is created and the predictions are uploaded in the excel sheet according to the respective observation of each persons.

Technical Overview

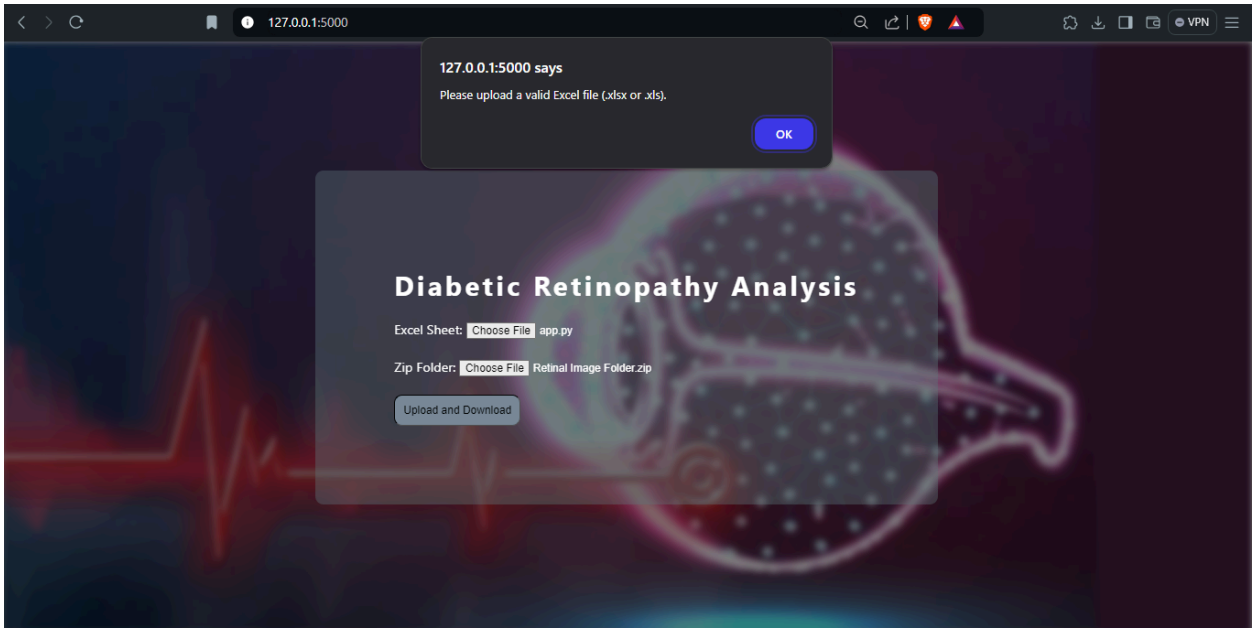
This Flask Web Application allows users to upload an Excel File and a ZIP archive containing retinal images. After the processing of these images with the help of model , the excel sheet gets updated with the predictions and user can download the files.

Tech Stacks used:-

- Flask
    - A lightweight web application Python framework
    - Handless HTTP requests and responses, file uploads., handles routing
- Pandas
    - Used to read,update and write excel files
    - Used for dataframe operations
- Zipfile
    - A Python Module that is used for working with ZIP archives.
    - Helps in the extraction of files.
- PIL (Pillow)
    - Used for opening ,resizing and processing images.
- TensorFlow
    - Loads and uses the pretrained Sequential Model for image classification

Handling File Format Errors while uploading

- Provides a pop up if the file format is wrong.



- Both the files are necessary in their respective format for the processing

Inputs and outputs

Input Excel Sheet (I have deleted the entries in the DR predicted values for left and right eyes)
Output Excel Sheet (Please download the file locally and check for the prediction values , as google sheets do not display values in scientific notation)

- Drive Link:- (With Code files and Sample Input and Output) - Prediscan_Medtech
- Github Link