PROJECT FLOW

Deep Learning Fundus Image Analysis for Early Detection of Diabetic Retinopathy

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PROJECT FLOW:

- The user interacts with the UI (User Interface) to choose the image.
- The chosen image analyzed by the model which is integrated with flask application.
- The Xception Model analyzes the image, then the prediction is showcased on the Flask UI.

To accomplish this, the below activities and task as to be completed:

- Data Collection.
  - ✓ Create a Train and Test path.
- Data Pre-processing.
- Import the required library
- Configure ImageDataGenerator class
- Apply ImageDataGenerator functionality to Trainset and Testset
- Model Building
  - ✓ Pre-trained CNN model as a Feature Extractor
  - ✓ Adding Dense Layer
  - ✓ Configure the Learning Process
  - ✓ Train the model
  - ✓ Save the Model
  - ✓ Test the model
- Train the model on IBM

- Cloudant DB
  - ✓ Register & Login to IBM Cloud
  - ✓ Create Service Instance
  - ✓ Creating Service Credentials
  - ✓ Launch Cloudant DB
  - ✓ Create Database
- Application Building
  - ✓ Create an HTML file
  - ✓ Build Python Code