

Deep Learning Fundus Image Analysis for Early Detection of Diabetic Retinopathy

1. Problem Statement

ABOUT PROJECT

PROBLEM:-

Diabetic Retinopathy (DR) is a common complication of diabetes mellitus, which causes lesions on the retina that affect vision. If it is not detected early, it can lead to blindness. Unfortunately, DR is not a reversible process, and treatment only sustains vision. DR early detection and treatment can significantly reduce the risk of vision loss. The manual diagnosis process of DR retina fundus images by ophthalmologists is time, effort and cost-consuming and prone to misdiagnosis unlike computer-aided diagnosis systems.

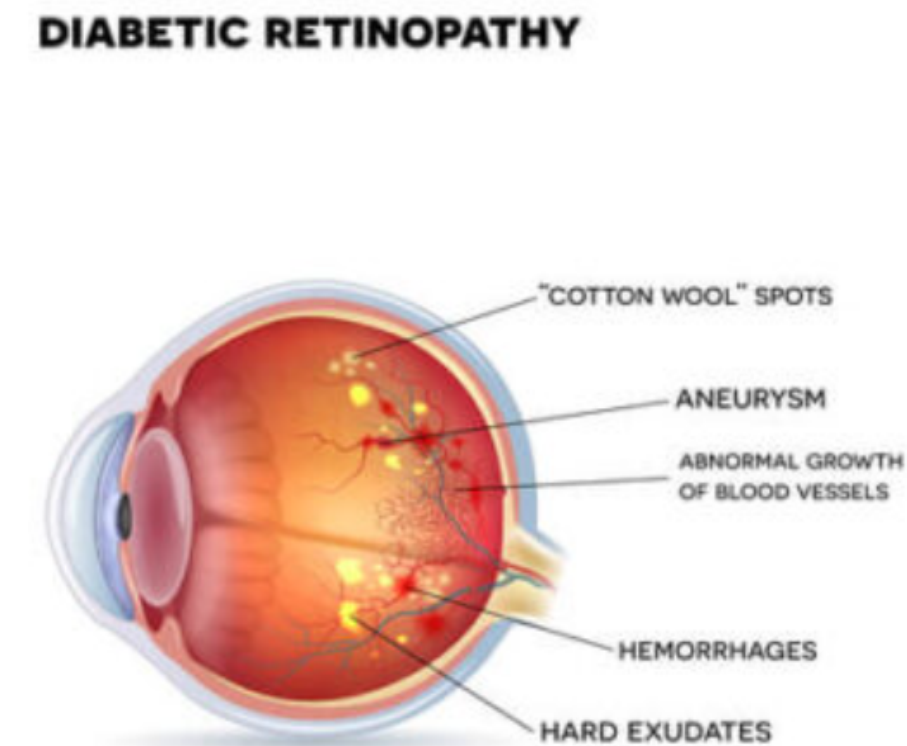
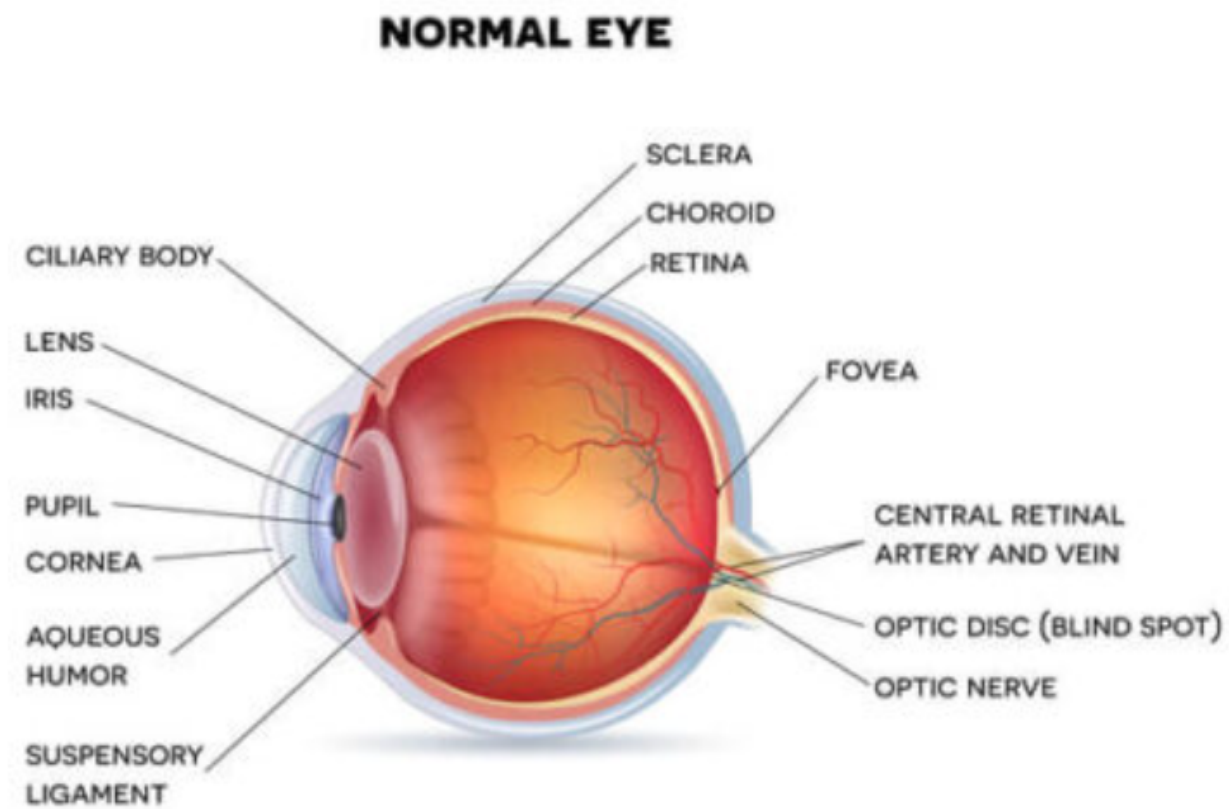
SOLUTION:-

In this project we will be building transfer learning has become one of the most common techniques that has achieved better performance in many areas, especially in medical image analysis and classification. We used Transfer Learning techniques like Inception V3, Resnet50, Xception V3 that are more widely used as a transfer learning method in medical image analysis and they are highly effective.

3. Home Page

Diabetic Retinopathy

Diabetic retinopathy is a diabetes complication that affects eyes. It's caused by damage to the blood vessels of the light-sensitive tissue at the back of the eye (retina). At first, diabetic retinopathy might cause no symptoms or only mild vision problems. But it can lead to blindness. The condition can develop in anyone who has type 1 or type 2 diabetes. The longer you have diabetes and the less controlled your blood sugar is, the more likely you are to develop this eye complication.



4. Register Page

Registration

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Register

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5. Login Page

User Login

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phani@gmail.com

Enter Password

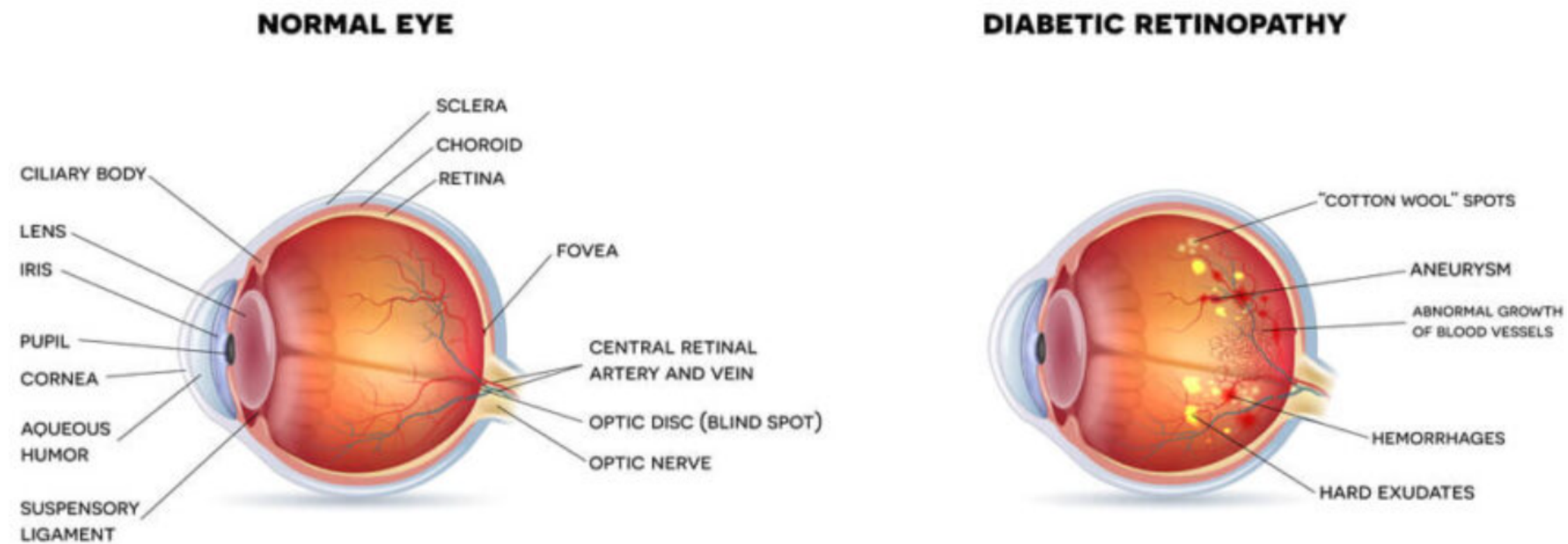
phani@gmail.com

Login

6. Home Page After Login

Diabetic Retinopathy

Diabetic retinopathy is a diabetes complication that affects eyes. It's caused by damage to the blood vessels of the light-sensitive tissue at the back of the eye (retina). At first, diabetic retinopathy might cause no symptoms or only mild vision problems. But it can lead to blindness. The condition can develop in anyone who has type 1 or type 2 diabetes. The longer you have diabetes and the less controlled your blood sugar is, the more likely you are to develop this eye complication.



7. Prediction Page

Diabetic Retinopathy Classification

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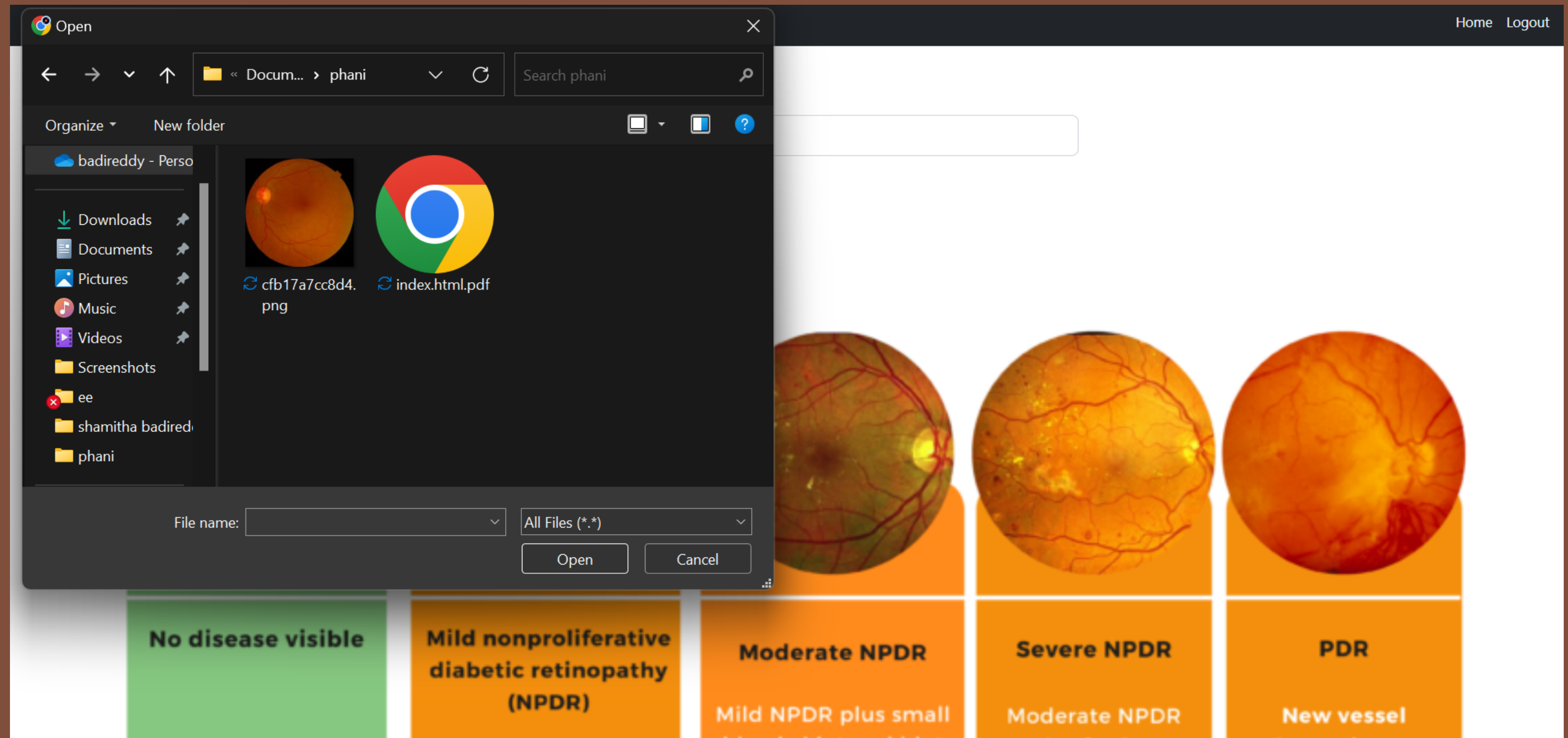
Upload Image

Choose File

No file chosen

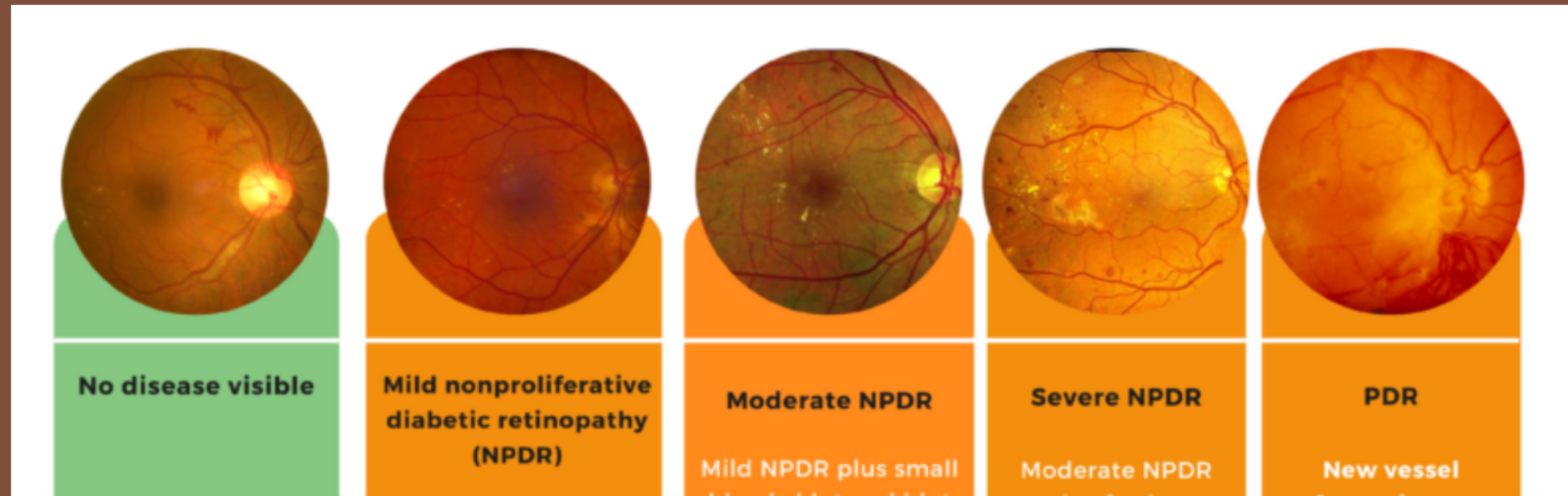
Predict

8. choose File

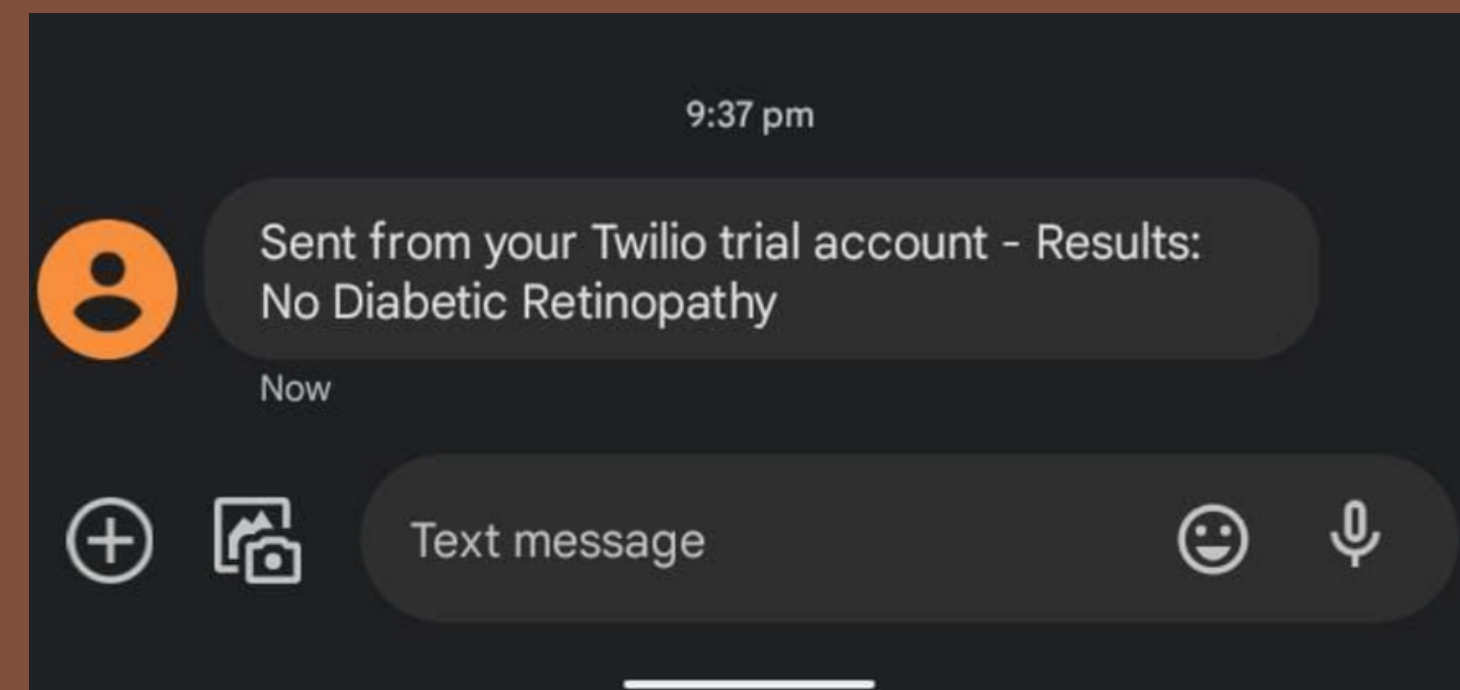


9. Result

Result on the
web page



Result received
to creator



10. Logout Page

Diabetic Retinopathy

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Successfully Logged Out!

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