**Diabetic retinopathy prediction in patients**

**Business Objective:**

The variable to be predicted has two values (positive or negative on diabetic retinopathy). Thus, this is a binary classification project. The goal here is to predict whether a patient will suffer from diabetic retinopathy or not, conditioned on blood test features.

**Data Set Details:**

Target variables has two values in a classification project type: 0 (false) or 1 (true). The number of instances (rows) in the data set is 6000, and the number of variables (columns) is 6.

The following list summarizes the information of the [variables](https://www.neuraldesigner.com/learning/tutorials/data-set#Variables)

1)**ID**: Numeric

2)**age**: (numeric).

3)**systolic\_bp**: (normal range: below 120mmHg). When the heart beats, it squeezes and pushes blood through the arteries to the rest of the body. This force creates pressure on the blood vessels, and that is the systolic blood pressure.

– Systolic blood pressure (upper value in a BP reading).

4)**diastolic\_bp**: (normal range: lower than 80mmHg). It is the pressure in the arteries when the heart rests between beats. This is the time when the heart fills with blood and gets oxygen.

– Diastolic blood pressure (lower value in a BP reading).

5)**cholesterol**: (normal range: between 125 and 200 mg/dl). It is a waxy, fat-like substance found in every cell in the body.

6)**prognosis**: (0 or 1) (Target). It is 1 if the patient has retinopathy and 0 if he doesn't.

**What is meant by Diabetic Retinopathy?**

* Caused by prolonged high blood sugar in people with diabetes.
* Damages the blood vessels in the retina.
* Leading cause of blindness in working-age adults.

**Acceptance criteria:**

Develop a machine learning application using deployment frameworks like streamlit etc.

**Milestones:**

30 days to complete the Project

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| **Milestone** | **Duration** |
| Kick off and Business Objective discussion | 24-07-2025 |
| Data set Details (Understand dataset) | 25-07-2025 |
| Exploratory Data Analysis | 31-07-2025 |
| Model Building | 07-08-2025 |
| Model Deployment & Presentation | 14-08-2025 |
| Submission of Final Documents | 15-08-2025 |

Protocols:

1. All participants should add here to agreed timelines and timelines will not be extended
2. All the documentation – Final presentation and documents to be submitted by the final presentation day
3. All the participants must attend review meetings