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# Exp 5: Logistic Regression

**AIM:** To Understand and Implement the Logistic Regression.

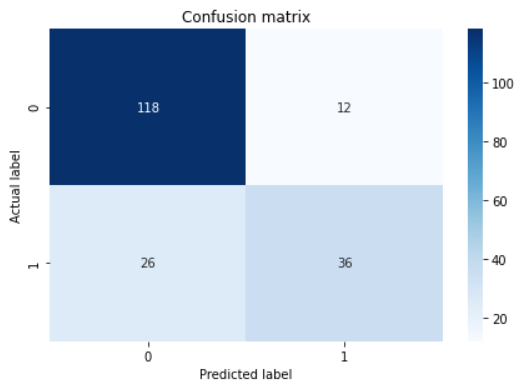
**Problem Description:**

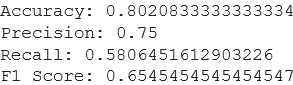
Logistic Regression is a classification technique. It is a fast and relatively simple, and convenient way to interpret the results. Mostly, it is used for Binary Classification problems but can also be used for multiclass problems. Here we have a diabetes Diabetes dataset that has features like Pregnancies, Insulin, BMI, Age, Glucose, blood pressure, DiabetesPedigreeFunction, and target variable ‘Outcome’ which is binary(0/1). A simple logistic regression model can be used to predict whether the patient is diabetic or not.

**Procedure:**

1. Import the required Libraries
2. Import and Load the Dataset
3. Select Features
4. Split the Dataset into Train and Test Data
5. Apply the Logistic Regression to the dataset using the method LogisticRegression() from sklearn.linear\_model
6. Evaluate the model using a Confusion matrix
7. Visualize the Confusion matrix using the heatmap
8. Evaluate the model using model evaluation metrics such as Accuracy, Precision, Recall, and F1 Score

**Results:**

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