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# Exp 8: Creating classification model based on Support Vector Machine

**AIM:** To Understand and Implement the Support Vector Machine.

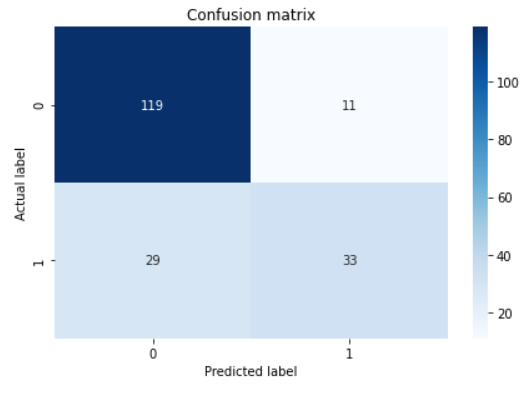
**Problem Description:**

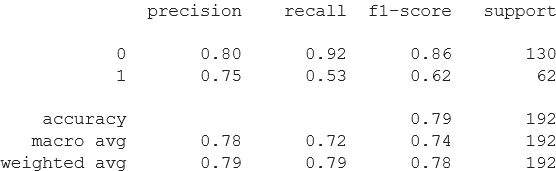
An SVM classifier builds a model that assigns new data points to one of the given categories. Thus, it can be viewed as a non-probabilistic binary linear classifier. Here we have a diabetes Diabetes dataset that has features like Pregnancies, Insulin, BMI, Age, Glucose, blood pressure, DiabetesPedigreeFunction, and target variable ‘Outcome’ which is binary(0/1). Implement SVM and pass the values of the kernel, and C along with other parameters.

**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 SVM with kernel=rbf and C=100
6. Evaluate the model using a Confusion matrix
7. Visualize the Confusion matrix using the heatmap
8. Use classification\_report() from sklearn to evaluate the SVM model.

**Results:**

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