

# **REPORT**

## **Lab5.Diabetes Classification using Logistic Regression**

In this lab we have learned how to classify using logistic regression model whether a person will become diabetic or not using given diabetes dataset. We need to predict a new person who is not in the dataset will become diabetic or not based on his details.

On this scenario we split dataset by 25% of test size which is `testsize=0.25` then we need to create a logistic regression model.

Will train the model with 25% of data then will predict using test data. After this will check by creating a new data with the name of `new_person` and make prediction on this data.

Next will print accuracy score, precision, recall and auc scores to understand the model then creating a heatmap with confusion matrix values.

Then apply scaling using standard scaler and minmax scaler and build a new logistic regression model. For better understanding we print the classification metrics scores and plot roc curve. Then finally compare performance of LoR model with LoRCV with L1 and L2 regularization which has different parameters.

