**LAB FINDINGS:**

In this lab task, we explored the use of logistic regression for binary classification. Specifically, we used logistic regression to predict whether it will rain or not. The dataset used for this task was preprocessed and cleaned to ensure that it was ready for modeling.

We began by importing the necessary libraries and loading the data into the program. Next, we used k-fold cross validation method to split the data into training and testing sets to ensure that our model was not overfitting. This technique is important to get a better measure of model performance by dividing the data in k-folds and then training the model on k-1 folds and testing it on the remaining one.

After that, we trained the logistic regression model on the training data and used it to make predictions on the test data.

To evaluate the performance of our model, we used the F1 score metric. The F1 score is a measure of a model's accuracy that takes into account both precision and recall. In this case, our model achieved an F1 score of 64%.

In conclusion, this lab task provided a hands-on experience in implementing logistic regression for binary classification, cross validation technique and evaluating its performance using the F1 score metric. The model achieved an F1 score of 64%, indicating that it was able to accurately predict whether it will rain or not