

The report aims to summarise the process that was followed while building the logistic regression model. The following steps were taken to make the model:

- The required libraries and the dataset was imported.
- The imported data was inspected and understood.
- Missing values were handled, and columns with a high percentage of missing values were dropped.
- Exploratory data analysis was performed.
- Binary values were mapped to 0 and 1, and dummy encoding was performed.
- The dataset was split into training and test sets.
- Using the training data, an initial model was built.
- This model was refined by looking at VIF values and the p-values of the coefficients.
- The model was evaluated using different evaluation metrics like accuracy, sensitivity, specificity etc.
- The ROC curve of the model was plotted.
- The optimal cut-off value was identified that balanced the different metrics like accuracy, sensitivity, specificity etc.
- The model was then used on the test set.