Model Development Phase Template

Date	21 July 2024
Team ID	739717
Project Title	Unlocking Silent Signals :Decoding Body Language with Mediapipe
Maximum Marks	10 Marks

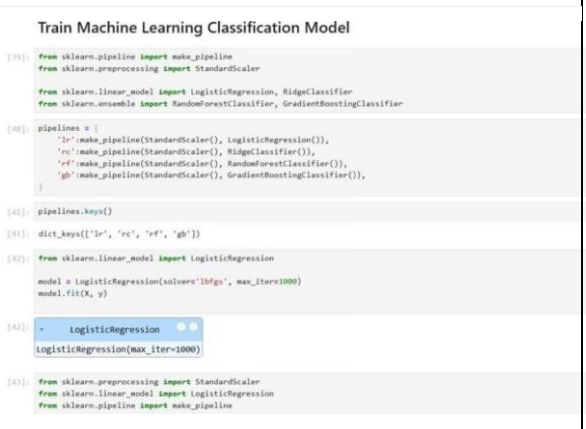
Initial Model Training Code, Model Validation and Evaluation Report

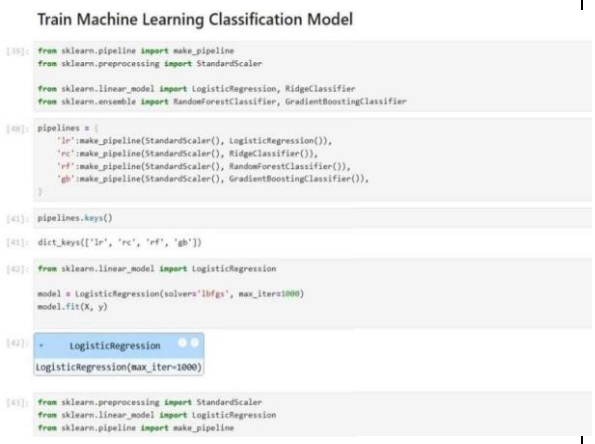
The initial model training code will be showcased in the future through a screenshot. The model validation and evaluation report will include a summary and training and validation performance metrics for multiple models, presented through respective screenshots.

Initial Model Training Code (5 marks):

Paste the screenshot of the model traning code

Model Validation and Evaluation Report (5 marks):

Model	Summary	Training and Validation Performance Metrics
Model 1	Gradient Boosting is the grouping of Gradient descent and Boosting. In gradient boosting, each new model minimizes the loss function from its predecessor using the Gradient Descent Method. This procedure continues until a more optimal estimate of the target variable has been achieved	

Model 2	Logistic Regression is used for binary classification tasks, predicting outcomes like spam vs. non-spam or disease vs. no disease, and it provides probabilities of class membership. It also helps in understanding feature importance and serves as a strong baseline model due to its simplicity and interpretability.	
Model 3	The Random Forest Classifier is ideal because it combines the strength of multiple decision trees, offering high accuracy, robust performance against overfitting, and the ability to handle large and complex datasets, ensuring reliable predictions in varied shipping scenarios.	
Model 4	The file "coords.csv" into a Pandas DataFrame. It then splits the data into training and testing sets using the train_test_split function from Scikit-learn. The df.head() and df.tail() functions are used to display the first and last few rows of the DataFrame, respectively.