Model Development Phase Template

Date	10 July 2024
Team ID	team-739866
Project Title	Revolutionising Liver Care- Predicting Liver Cirrhosis using advanced Machine Learning
Maximum Marks	6 Marks

Model Selection Report

In the forthcoming Model Selection Report, various models will be outlined, detailing their descriptions, hyperparameters, and performance metrics, including Accuracy or F1 Score. This comprehensive report will provide insights into the chosen models and their effectiveness.

Model Selection Report:

Model	Description	Hyperparameters	Performance Metric (e.g., Accuracy, F1 Score)
KNN	K-Nearest Neighbour got highest accuracy in our model	Best parameters: {'bootstrap': False, 'max_depth': 20, 'max_features': 'sqrt', 'min_samples_leaf': 1, 'min_samples_split': 10, 'n_estimators': 200}	Accuracy: 0.887719298245614 Confusion Matrix: [[68 21] [11 185]] Classification Report: precision recall f1-score support NO 0.86 0.76 0.81 89 YES 0.90 0.94 0.92 196 accuracy 0.89 285 macro avg 0.88 0.85 0.86 285 weighted avg 0.89 0.89 0.89 285

XgBoost	We have used XgBoost with best parameters	Best parameters: {'colsample_bytree': 0.8, 'learning_rate': 0.01, 'max_depth': 5, 'n_estimators': 200, 'subsample': 0.8}	Confusion Matrix: [[39 16] [10 125]] Classification Report: precision recall f1-score support 0 0.80 0.71 0.75 55 1 0.89 0.93 0.91 135 accuracy 0.86 190 macro avg 0.84 0.82 0.83 190 weighted avg 0.86 0.86 0.86 190
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