EasyVisa - Problem Statement

Submission type	:	File Upload	Due Date	:	Nov 13, 12:30 PM	Total Marks	: 60
Available from	:	Oct 27, 9:30 PM					
Your Marks	:	60/60					

Description

Scoring guide (Rubric) - EasyVisa Rubric Evaluated

Criteria	Ratings	Points
Exploratory Data Analysis - Problem definition - Univariate analysis - Bivariate analysis - Use appropriate visualizations to identify the patterns and insights - Key meaningful observations on individual variables and the relationship between variables	- Problem defined, Statistical data summary and observations done very well - Good work on adding univariate and bivariate analysis, used appropriate visualizations to identify the patterns and insights - Added key meaningful observations on individual variables and the relationship between variables	11/11
Data Pre-processing - Duplicate value check - Missing value treatment (if needed) - Outlier Detection(treat, if needed- why or why not), - Feature Engineering (if needed) - Data preparation for modeling	- 'case_id' column dropped. - Treated negative values from number of employees column. - Outliers identified and mentioned the reason for not treating it - Prepared data for modeling - Missing values checked - Done feature engineering	4/4
Model Building - Bagging - Build Decision Tree, Bagging classifier, and Random Forest - Comment on model performance	- Built Decision Tree, Bagging classifier, and Random Forest - Provided comment on model performance of 3 models	7/7
Model Improvement - Bagging - Comment on the model performance after tuning the Decision Tree, Bagging, and Random Forest classifier to improve the model performance.	- The model performance for decision tree classifier, bagging classifier and random forest classifier has been improved using hyperparameter tuning with GridSearchCV. - Provided comment on tuned model performance.	10/10
Model Building - Boosting - Build Adaboost and GradientBoost - Comment on model performance * Please note building XGBoost model is optional	- The Adaboost classifier , Gradient boosting classifier and xgboost classifier model has been trained with default parameters. - Provided comments on model performance for all the boosting models tried	5/5
Model Improvement - Boosting - Comment on the model performance after tuning the AdaBoost, and Gradient Boosting classifier on the appropriate metric to improve the model performance - Build Stacking Classifier * Please note XGBoost can take a significantly longer time to run, so if you have time complexity issues then you can avoid tuning XGBoost.	- The model performance for adaboost classifier, xgboost classifier and gradient boosting classifier has been improved using hyperparameter tuning with GridSearchCV. - Provided comments on tuned model performance.	9/9
Actionable Insights & Recommendations - Compare model performance on various metrics. - Conclude with the key takeaways - What would your advice be to grow the business?	- Compared the model performances and concluded with model insights - important features identified. - Business recommendations has been added with proper insights.	6/6
Presentation / Notebook - Overall quality - Structure and flow - Crispness - Visual appeal - Conclusion and Business Recommendations OR - Structure and flow - Well commented code - Conclusion and Business Recommendations	- Solution follows proper structure and flow - Code is well commented - Conclusion and Business Recommendations provided	8/8
	Points	60/60