

SECTIONS	Subsections	Max	Marks
1. Aims, Obj., plan	-Aim and Objectives -Plan: Simple Gantt chart	2	
2. Case Study	Case Study Analysis	2	
3. Pre-Processing	-Merging, pivoting and melting, if necessary -Preparing the labels appropriately, if necessary -Dealing with missing values (imputation, filtering) without leaking, if necessary -Scaling, without leaking, if necessary -Dealing with correlation and collinearity, if necessary -Appropriate feature selection such as RFE or variance analysis, if necessary -Appropriate feature extraction, if necessary -Identifying and dealing with class imbalance, if necessary -Identifying and dealing with outliers, if necessary -Categorical and numerical encoding if necessary -Other pre-processing (visualisation)	40	
4. Technique 1	- Motivation for choosing the technique and schematic figure of the analysis process - Setting hyperparameters (rationale) - Optimising the hyperparameters appropriately with CV - Pipeline to avoid leakage and promote clarity - Performance metrics for the training set - Deal with class imbalance, if necessary, if not done above at the level of model	16	
5. Technique 2	- Motivation for choosing the technique and schematic figure of the analysis process - Setting hyperparameters (rationale) - Optimising the hyperparameters appropriately with CV - Pipeline to avoid leakage and promote clarity - Performance metrics for the training set - Deal with class imbalance, if necessary, if not done above at the level of model	16	
6. Testing Performance Comparison	-Use of nested cross-validation for both techniques to deal with overfitting model selection and model comparison -Overfitting checked and avoided -Performance metrics for the testing set -Use an appropriate model selection visualisation curve (ROC, PR etc.)	16	
7. Final Recomm.	-Technical perspective- overfitting discussion, complexity and efficiency -Business perspective- results interpretation, relevance and balance with technical perspective	4	
8. Reflection	-What has been accomplished successfully and what has not -Reflect on the analysis and see what you could have done differently -Add a wish list of future work that you would do to take the project forward	4	

Level	Aims, Objectives & Plan	Case Study Analysis	Pre-processing	Technique 1 and 2	Testing & Performance Comparison	Final Recommendation	Reflection
Outstanding (≥80%)	Clear, concise aims and objectives. Plan (e.g., Gantt chart) is detailed, realistic, and well presented.	Exceptional understanding and succinct summary. Clearly contextualised and well-justified choice.	Outstanding and comprehensive preprocessing. No leakage. Clear justification of all steps.	Outstanding justification and clear schematic of the modelling pipeline. Hyperparameters optimised effectively using CV. Excellent pipeline use and training metrics. Imbalance managed well.	Outstanding use of nested CV. Overfitting clearly addressed. Testing metrics well reported and visualised with excellent plots (ROC, PR etc.).	Outstanding technical and business recommendations. Balanced, well-reasoned, and insightful.	Outstanding self-assessment, honest critique, and thoughtful future planning.
Excellent (70–79%)	Aims and objectives are clear and well stated. Plan is logical and well-structured.	Clear and thorough explanation of the case study and its relevance.	Excellent handling of preprocessing with minimal issues. Leakage avoided.	Excellent understanding, motivation and CV usage. Strong design of pipeline and metric reporting. Imbalance addressed appropriately on different levels.	Excellent nested CV usage. Overfitting managed well. Metrics and plots clearly interpreted.	Excellent final judgement with clear links to results and model performance.	Excellent reflection with meaningful insights and clear future directions.
Good (60–69%)	Good articulation of aims/objectives and a reasonable plan.	Good understanding of the case study. Reasonable context provided.	Good preprocessing decisions. Minor issues in justification or execution.	Good technique choice and decent optimisation. Pipeline mostly correct. Metrics and imbalance handling generally good.	Good nested CV and reasonable attempt at avoiding overfitting. Metrics used appropriately.	Good conclusions drawn. Business and technical balance addressed.	Good reflection and reasonable suggestions for improvement.
Reasonable (50–59%)	Adequate aims/objectives. Plan is somewhat vague or lacks detail.	Basic understanding. Some relevance shown but lacks depth.	Some preprocessing applied with moderate justification. Possible leakage risks.	Some attempt at optimisation and pipeline clarity. Metrics or imbalance handling may be incomplete.	Basic attempt at CV and overfitting check. Limited metrics or unclear visualisations.	Adequate recommendation with some relevant points. Slight imbalance.	Basic reflection present. Some ideas for future work included.

Inadequate (40–49%)	Aims and plan are poorly articulated or ambiguous. Unclear or missing aims. Plan is absent or unrealistic.	Minimal understanding. Context poorly explained. Little or no analysis. Relevance not demonstrated.	Limited preprocessing. Steps inadequately explained. Risk of data leakage. Inappropriate or absent preprocessing. Clear signs of leakage or misunderstanding.	Limited justification or weak pipeline. Some misuse of CV or missing imbalance strategy. Poorly chosen or unjustified technique. No CV. Major issues in metrics or imbalance handling.	Some CV attempt but flawed or incorrectly applied. Weak overfitting discussion. No nested CV. Overfitting not addressed. Missing or misused metrics/visuals.	Inadequate conclusion. Limited link to evaluation or application. Little to no final recommendation or discussion.	Minimal or shallow reflection. Vague future ideas. No real reflection or learning evident.
Poor (<40%)							