## Group Assignment Marking Rubric

Criterion	Does not meet expectations	Meets expectations	Exceeds expectations
Task 1	☐ Forecasting problem is vague or lacks clarity, failing to establish the real-world application of the forecasting problem	☐ Forecasting problem is adequately described, giving some real-world application examples.	☐ Forecasting Problem is well-defined, offering an insightful analysis with comprehensive real-world applications
	<ul> <li>□ Evaluation Criteria are superficially defined or inconsistently explained, providing little insight into how forecasting performance is assessed</li> <li>□ Variables are poorly categorised, leaving gaps or inaccuracies in data understanding</li> <li>□ Missing Values analysis is inadequate, incomplete, or missing altogether for either the training or test dataset</li> <li>□ Summary statistics and distributions are either missing or presented without meaningful discussion, outliers, or data characteristics</li> <li>□ The Problem Description is disorganised, with arguments that are inaccurate or lack cohesion</li> </ul>	<ul> <li>□ Evaluation Criteria are reasonably clear, providing a satisfactory overview of how performance is measured</li> <li>□ Variables are categorised by type, with a basic explanation of the classification process</li> <li>□ Missing Values analysis identifies the presence of missing data in both training and test datasets, but the insights are limited</li> <li>□ Provides a basic discussion of the summary statistics and distributions in the dataset, covering key trends and features</li> <li>□ The Problem Description is sufficiently organised, offering coherent and clear arguments</li> </ul>	<ul> <li>□ Evaluation Criteria are detailed and persuasive, fully explaining how forecasting performance is assessed and why the chosen criteria are relevant</li> <li>□ Variables are categorised accurately, with a thorough and clear explanation of each variable type and its relevance</li> <li>□ Missing Values analysis thoroughly examines the training and test datasets, recognising patterns and their implications</li> <li>□ Provides an engaging summary of statistics and distributions in the dataset, highlighting notable trends, outliers, and their implications</li> <li>□ The Problem Description is well-structured, with clear, persuasive arguments demonstrating refined critical thinking</li> </ul>
Task 2	<ul> <li>□ Numerical feature cleaning is inadequate or incomplete, with residual non-numeric values left in key features</li> <li>□ Fewer than five new features are created, or the new features do not effectively add information to the dataset</li> <li>□ Missing values are not properly imputed or are not addressed across all features in the datasets</li> <li>□ Categorical encoding is poorly handled, with errors in mapping to frequent categories or encoding multiple values</li> <li>□ Data preparation for predictive models is minimal or lacks explanations, leaving the dataset unprepared</li> </ul>	<ul> <li>□ Numerical features are cleaned, with non-numeric values removed where necessary</li> <li>□ At least five new features are created, providing additional insights or useful information</li> <li>□ Missing values are imputed for datasets, with reasonable assumptions made in the imputation</li> <li>□ Categorical features are appropriately encoded, using the five most frequent values and an 'other' category where needed</li> <li>□ Additional data preparation steps are clearly explained and contribute to the dataset's suitability</li> </ul>	<ul> <li>□ Numerical feature cleaning is comprehensive, converting all non-numeric data into numerical format</li> <li>□ Five or more new features are created, with significant insights about the transforming complex variables effectively</li> <li>□ Missing values are handled strategically to enhance the dataset's integrity and predictive power</li> <li>□ Categorical encoding is expertly managed, appropriately grouped and encoded, with accurate mapping to frequent values</li> <li>□ Additional data preparation is insightful and significantly improve dataset's utility</li> </ul>

Criterion	Does not meet expectations	Meets expectations	Exceeds expectations
Task 3	<ul> <li>□ Exploratory Data Analysis is insufficient, with unclear explanations and a lack of insights</li> <li>□ Builds and explains fewer than 3 ML models and</li> </ul>	☐ Exploratory Data Analysis reveals some relationships between features and the target and explanations are reasonably clear	☐ Exploratory Data Analysis uncovers insightful relationships, accompanied by clear and comprehensive explanations ☐ Builds and explains 3 ML models with well-
	fails to take into account the outcomes or previous task (data preparation, EDA, etc)	☐ Builds and explains 3 ML models with informed by the outcomes of previous task	structured based on insights from previous task
	☐ Explanations for model choices and processes are unclear or lacks	☐ Provides clear explanations for model choices and processes	☐ Explanations for model choices and processes are comprehensive and insightful
	☐ Fitting and tuning processes are unclear or absent and lacks cross-validation or proper hyperparameters tuning.	☐ Models are properly fit and tunes via cross- validation and hyperparameter tuning is performed and explained.	☐ Employs advanced techniques for model fitting and tuning and hyperparameter tuning is thorough and well-justified.
	☐ Steps are poorly explained or lack clarity.	☐ Steps are clearly explained	☐ Explanations are comprehensive and demonstrate deep understanding
	☐ Best algorithm selection is unclear or unjustified and prediction process is poorly explained	☐ Clearly explains the rationale for selecting the best algorithm and prediction process using the dataset is explained	☐ Provides a well-reasoned justification for the best algorithm and prediction process is thoroughly explained and well-documented
	☐ Fails to submit predictions on Kaggle or provide ranking/score	□ Provides Kaggle ranking, score, and basic comments	□ Provides Kaggle ranking, score, and insightful comments/suggestions for improvement
Presentation	☐ Team members are not introduced, or introductions are incomplete	☐ Some team members are introduced	☐ Clear and engaging introductions of all team members
	☐ Lack of clarity or context about team member roles or contributions	☐ Brief mention of some member's role or contributions	☐ Provides relevant context about all team members' roles and contributions
	☐ Delivery is unclear, monotonous, or lacks confidence	☐ Clear and audible delivery with appropriate pacing ☐ Limited distracting mannerisms or overreliance on	☐ Confident, engaging, and enthusiastic delivery
	☐ Distracting mannerisms or overreliance on notes	notes	☐ Polished and professional presence, minimal distractions
	☐ Presentation is significantly shorter or longer than allocated time	☐ Presentation stays within the allotted time frame ☐ Appropriate pacing and time allocation for key points	☐ Precise time management, effectively utilising the allotted time
	☐ Pacing ins rushed or excessively slow, affecting clarity	☐ Smooth transitions between sections or topics	☐ Skilful pacing and emphasis on critical information
	☐ Ineffective time allocation for key points or transitions		☐ Seamless transitions, maintaining audience engagement

Text Answers / Quality of writing	□ Writing is weak	☐ Writing is adequate	☐ Writing is of superior qualitys
	☐ Numerous grammatical and spelling errors are apparent	☐ Some grammatical and spelling errors are apparent	☐ No grammatical and spelling errors apparent
	☐ Organisation is poor ☐ Style is not appropriate for discipline	□ Organization is logical	□ Organization is excellent
		☐ Style is appropriate for discipline	☐ Style is exemplary