Section	Description	Points	Grade Breakdown and Requirements			Weightage
			What 80-100% looks like	What 60-80% looks like	What <60% looks like	
Problem 1 - Define the problem and perform exploratory Data Analysis	- Problem definition - Check shape, Data types, statistical summary - Univariate analysis - Multivariate analysis - Use appropriate visualizations to identify the patterns and insights - Key meaningful observations on individual variables and the relationship between variables	**7**	- Problem definition [0.5] - Check shape, Data types, statistical summary [0.5] - Use appropriate visualizations to identify the patterns and insights - Univariate Analysis [2] - Multivariate Analysis [3] - Key meaningful observations on individual variables and the relationship between variables [1]	- Problem definition - Check shape, Data types - Use appropriate visualizations to identify the patterns and insights - Univariate Analysis done for some variables but not all - Multivariate Analysis done for 2-3 combination of variables - Few observations listed	- Problem definition - Univariate and Analysis done for some variables	11.67%
Problem 1 - Data Pre-processing	Prepare the data for modelling: - Missing Value Treatment (if needed) - Outlier Detection (treat, if needed) - Feature Engineering - Encode the data - Train-test split	**5**	Prepare the data for modelling: - Missing value Treatment [1] - Outlier Detection and Treatment [1] - Feature Engineering [1] - Encode the data [1] - Train and Test Data split [1]	- Missing value Treatment - Encode the data - Train and Test Data split	- Encode the data - Train and Test Data split	8.33%
Problem 1- Model Building - Linear regression	- Build a linear regression model using sklearn - Using statsmodels, perform checks for significant variables using appropriate method - Create multiple models (at least three) by dropping insignificant variables and/or doing feature engineering - Check the model performance on train and test sets using different metrics	**9**	- Build a linear regression model using sklearn [1.5] - Using statsmodels, perform checks for significant variables using appropriate method [1] - Create multiple models (at least three) by dropping insignificant variables and/or doing feature engineering [1.5 x 3] - Check the model performance on train and test sets using different metrics [2]	- Build a linear regression model using sklearn - Using statsmodels, perform checks for significant variables using appropriate method - Check the model performance on train and test sets using different metrics	- Build a linear regression model using sklearn - Check the model performance on train and test sets using different metrics	15.00%
Problem 1 - Business Insights & Recommendations	- Comment on the Linear Regression equation from the final model and impact of relevant variables (atleast 2) as per the equation - Conclude with the key takeaways (actionable insights and recommendations) for the business	**5**	- Comment on the Linear Regression equation from the final model and impact of relevant variables (atleast 2) as per the equation [1+1] - Conclude with the key takeaways (actionable insights and recommendations) for the business - Actionable insights [1 x 2] - Recommendations [0.5 x 2]	- Comment on the Linear Regression equation from the final model - Some actionable insights and recommendations mentioned	- Some actionable insights mentioned	8.33%
Problem 2 - Define the problem and perform exploratory Data Analysis	- Problem definition - Check shape, Data types, statistical summary - Univariate analysis - Multivariate analysis - Use appropriate visualizations to identify the patterns and insights - Key meaningful observations on individual variables and the relationship between variables	**7**	- Problem definition [0.5] - Check shape, Data types, statistical summary [0.5] - Use appropriate visualizations to identify the patterns and insights [6] - Univariate Analysis [2] - Multivariate Analysis [3] - Key meaningful observations on individual variables and the relationship between variables [1]	- Problem definition - Check shape, Data types - Use appropriate visualizations to identify the patterns and insights - Univariate Analysis done for some variables but not all - Multivariate Analysis done for 2-3 combination of variables - Few observations listed	- Problem definition - Univariate and Analysis done for some variables	11.67%
Problem 2 - Data Pre-processing	Prepare the data for modelling: - Missing value Treatment (if needed) - Outlier Detection(treat, if needed) - Feature Engineering (if needed) - Encode the data - Train-test split	**3**	Prepare the data for modelling: - Missing value Treatment (if needed) [0.5] - Outlier Detection(treat, if needed) [0.5] - Encode the data [1] - Data split (train and test sets) [1]	- Missing value Treatment - Encode the data - Data split (train and test sets)	- Encode the data - Train and Test Data split	5.00%
Problem 2 - Model Building and Compare the Performance of the Models	- Build a Logistic Regression model - Build a Linear Discriminant Analysis model - Build a CART model - Prune the CART model by finding the best hyperparameters using GridSearch - Check the performance of the models across train and test set using different metrics - Compare the performance of all the models built and choose the best one with proper rationale	**13**	- Build a Logistic Regression model [1.5] - Build a Linear Discriminant Analysis model [1.5] - Build a CART model [1.5] - Prune the CART model by finding the best hyperparameters using GridSearch [3.5] - Check the performance of the models across train and test set using different metrics [3] - Compare the performance of all the models built and choose the best one with proper rationale [2]	- Build a Logistic Regression model - Build a Linear Discriminant Analysis model - Build a CART model - Check the performance of the models across train and test set using different metrics - Choose the best model	- Build a Logistic Regression model - Build a Linear Discriminant Analysis model - Build a CART model - Check the performance of the models	21.67%
Problem 2 - Business Insights & Recommendations	- Comment on the importance of features based on the best model - Conclude with the key takeaways (actionable insights and recommendations) for the business	**5**	- Comment on the importance of features based on the best model [1] - Conclude with the key takeaways (actionable insights and recommendations) for the business - Actionable insights [1 x 3] - Recommendations [0.5 x 2]	- Comment on the importance of features based on the best model - Some actionable insights and recommendations mentioned	- Some actionable insights mentioned	8.33%
Business Report Quality	- Adhere to the business report checklist	**6**	Objective, guidance, and data description: 1 point Exclusion of code: 2 points Structure and readability: 1 point Rationale and logic: 1 point Visual clarity and referencing: 1 point	Objective, guidance, and data description Structure and readability Rationale and logic	Objective, guidance, and data description Rationale and logic	10.00%
		60				**100.00%**