BUS5PA Assignment 1 – Answer guidelines (Rubric)

Expectation Matrix for answer preparation

Part A	D	C	B	A
Q1	Evidence of a basic exploration	A brief background on the USA property market (without explicit information on what influences the property value)	Identification of the factors affecting house prices (without justifications)	Detailed background study on the factors affecting the sales price of houses in the USA
Q2	Evidence of a basic exploration	A brief exploration of the data sources	Identification of relevant data sources, data formats and challenges (without details)	Detailed analysis of available data sources, methods of obtaining and discussion on challenges in data collection
Q3	Evidence of a basic exploration	A brief exploration of variables which are useful for a predictive model	Complete list of variables which are useful for a predictive model (without justifications)	Complete list of variables that are useful for a predictive model with proper justifications on their importance/impact on the sales price.

Part B	D	C	B	A
Q1	Correctly identifying some continuous / numerical variables.	D requirements + Correctly identifying the nominal and ordinal variables	C requirements + Correct explanation for transforming categorical variables	B requirements + Demonstrating data transformation
Q2	Correct calculations of summary statistics for continuous variables	D requirements + Summary for categorical variables	C requirements + Identification of extreme values	B requirements + Correct justifications
Q3	Evidence of histograms and summary statistics	D requirements + Correct answer to 3.a	C requirements + Correct answer to 3.b	B requirements + Correct answer to 3.c
Q4	Correctly answer to 4.a	D requirements + Evidence of using the three techniques	C requirements + Proper presentation of results based on the three techniques	B requirements + Comparative discussion related to the original value
Q5	Evidence of correlation plots.	D requirements + Evidence of variable distribution against the target results	C requirements + Properly carried out dimension reduction and presented the variable distribution against the target (without detailed explanations)	B requirements + With proper justifications and explanations based on the case study.

Part C	D	C	B	A
Q1	Correct understanding of building a regression model	D requirements + Correct implementation of three different regression models	C requirements + Identification of the optimal model	B requirements + Correct answer to 2.c
Q2	Correct understanding of building a decision tree	D requirements + Correct implementation of three different decision tree models	C requirements + Identification of the optimal model	B requirements + Explanation for the outputs
Q3	Identification of the correct validation accuracies of the optimal models	D requirements + Identification of the suitable predictive model	C requirements + A valid justification	B requirements + A detailed description aligned with the business case

Report format – A formal report is NOT expected for this assessment. As students of Masters level, you are expected to decide a suitable format for an informal report (a report for discussion within the analytics group). Please speak to lecturer if you are unsure about the format. A word or pdf file with the heading BUS5PA Assignment 1 Submission X (1,2,3), R script (where applicable) and student details should be submitted. Answers to questions in each part must be provided in the document. There is no strict word or page length, but students must keep in mind that a report that is too long can 'hide' the important points from the reader.

Submission – The project file and the report must be submitted on LMS by the due date. A submission link is available in LMS and announced in the unit web site. Instructions on how to submit the project file is available in the assignment folder.