**Evaluation Rubric**

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| **Criteria** | **Meets expectations** | **Does not meet expectations** |
| **Data Understanding and Data Preparation (~10%)** | All the steps for data preparation of the 21 market segments, calculating their coefficient of variation are done properly. The most profitable market segment is explained using comments in the code and also in the presentation. | All quality checks are not done, data quality issues are not addressed correctly to an appropriate level.  The coefficient of variation calculation is not done for all the 21 market segments in the code and also not explained in the presentation.  The most profitable market segment is not explained in the comments and in the presentation. |
| Model Building (Both Smoothing and ARIMA set of techniques) (~45%) | All the smoothing and the ARIMA set of techniques are applied to calculating the sales of the most profitable market segment. The forecast plots consisting of the forecasting of the test data is plotted in the code and also the MAPE calculations for each technique are performed in the code.   All the MAPE values should be added one after the other in the same table so that at the end of the code, all the MAPE values for all the techniques can be comparable. In ARIMA set of techniques, the box cox transformation should be done and shown in the code and also the differencing for making the time series stationary. Proper comments should be written for each step in the code. | The smoothing techniques are not applied well for the sales forecasts. The forecasts plots for each technique are not shown well in the code. Also, the MAPE calculation is not done well and added to the same table.   The model is not interpreted and explained correctly. |
| **Model Evaluation (~30%)** | The forecast plot obtained for each technique in the smoothing techniques and the ARIMA set of techniques for sales forecasts should be explained well in the presentation.  Also, the MAPE values obtained for each plot in the sales forecast should be explained. The best technique in smoothing and the best technique in ARIMA set of techniques based on the forecast plot and the MAPE value should be concluded for sales for the most profitable market segment. | The forecast plots and the MAPE calculations are not correctly explained in the code and in the presentation.    The best-suited technique for sales forecasts in each smoothing and ARIMA set of techniques is not explained well. |
| **Presentation (~10%)** | The presentation asked in the submission explains all the required details. The coefficient of variation is explained well for the 21 market segments and which market segment is the most profitable and why it is most profitable is also explained.    Explaining well the optimum technique from the flow chart that might work best for the sales forecasts. Explaining well the insights from the plots and the MAPE values derived from the 3 smoothing techniques and ARIMA set of techniques.    Concluding with reasons which smoothing technique and ARIMA technique works best for sales forecasts. | The presentation does not explain all the steps mentioned in the submission. Conclusions from the flowchart are not explained well for sales forecast before starting with the modelling technique.    The forecasts plots and the MAPE values for each smoothing technique and ARIMA set of techniques are not explained well in the presentation.    The conclusions mentioning the technique that works best from the smoothing methods and ARIMA methods are not explained well for sales forecasts. |
| **Conciseness and readability of the code (~5%)** | The code is concise and syntactically correct. Wherever appropriate, built-in functions and standard libraries are used instead of writing long code.  Custom functions are used to perform repetitive tasks.  The code is readable with appropriately named variables and detailed comments are written wherever necessary. | Long and complex code used instead of shorter built-in functions.  Custom functions are not used to perform repetitive tasks resulting in the same piece of code is repeated multiple times.  Code readability is poor because of vaguely named variables or lack of comments wherever necessary. |

The details for all the required submissions are provided on the next page.