**Individual Analytics Assignment – 15%**

Sarah owns a specialty food store in your neighbourhood. She heard that you are taking an analytics course and has come to you for help. To assist with this, Sarah has provided you with a sample of 200 randomly selected sales transactions which took place over a 30-day period.

**Question 1 – 10 marks**

1. Perform descriptive analytics on the data (e.g., calculate the average sales, average family income, etc.) What insights can you draw from this analysis? /4
2. What charts can you create that can help draw more insights / knowledge? /3
3. Were there any issues or outliers with the data? If yes, what actions did you take and why? /3

Provide a write-up of your findings and the work you performed.

**Question 2 – 15 marks**

Build a regression model that will help predict sales.

1. Develop scatter charts. What does the scatter chart indicate about the relationship between sales and the independent variables? /4
2. Perform regression model analysis and recommend a final model. Explain how you came up with your recommended model and show your work. /5
3. Are there variables that are not that predictive that could be eliminated? What are they and how did you determine this? /3
4. What changes and/or suggestions would you make (e.g., changes in the data collection process) that could help improve the model? /3

**Question 3 – 5 marks**

1. How would you explain the results of this model (e.g., how could Fatima implement or use the model) to Fatima who has no background in analytics? /5