



MGT 201: Winter 2024 (Homework #4)

Due on Monday, April 8th, 2024 (11:59pm)

Submit the following files:

1. Jupyter Notebook (ipynb) file
2. PDF and/or HTML file that shows your code and output

When you write your program, please add applicable comments with the hashtag (#) and/or with markdown cells so the grader can follow your work. You are expected to use the concepts that we've learned this semester.

You work for a Supermarket chain as a business (data) analyst and your Information Systems department provided you some sample data on over 14,000 transactions made by your customers over a period of approximately two years. Your new boss just joined the company and wants you to analyze and summarize the data so she can understand the customers' profile.

She has specifically requested the following information:

1. What proportion of these transactions are made by customers who are married?
2. What proportion of these transactions are made by customers who do not own a home?
3. What proportion of these transactions are made by customers who have at least one child?
4. What proportion of these supermarket customers are single and own a home?

Her boss found out that you have this data and has requested the following information from you:

1. What was the total revenue in \$ for the following months (i.e., January 2016 and February 2016)?
2. For the entire data set, what was the total revenue in \$ for all purchases made by married female homeowners?
3. For the entire data set, what was the total revenue in \$ in the state of California?
4. For the entire data set, what was the total revenue in \$ generated by the Produce product department?