MGTC28 Group 10 Project Plan
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- **How are you going to approach the problem(abstract)?**
  - By combining data analysis and business strategy, we aim to address Kenvue Inc.'s challenge: "Which need states should be promoted and when, and how should the trade spend be optimized/adjusted?". This approach would involve thorough data analysis, insightful visualizations, and the development of a targeted go-to-market strategy. How we approach this dataset is by using various tools to create a more thorough analysis of the data presented, allowing us to give Kenvue Inc. the best analysis of the data provided.
- **Who is your group and division of labour?**
  - Krishan Thavarajah will be responsible for data analysis and is primarily responsible for data cleaning, merging datasets, and conducting exploratory data analysis (EDA). I will also create meaningful visualizations to convey key insights using the Customer DC Inventory, Factory POS $, Total Ecomm POS (Factory $), Total Sales, and Total Trade Spend datasets.
  - Ethan Ching will lead the development of the go-to-market strategy, aligning business insights with data-driven findings. Additionally, I will handle the implementation of analytical techniques, including time-series forecasting models and web scraping for external data, using the Total Trade Spend dataset.
- **Which data set will you use?**
  - The following datasets will be used to analyze Kenvue Inc.'s challenge:
    - Customer DC Inventory - UTSC Lecture.csv
    - Factory POS $ - UTSC Lecture.csv
    - Total Ecomm POS (Factory $) - UTSC Lecture.csv
    - Total Sales - UTSC Lecture.csv
    - Total Trade Spend.csv
  - Our analysis will be based on the provided datasets, encompassing POS Factory $, Total Sales, DC Amount, Store Amt on Hand, Total Trade Spend, and Need State. These datasets will serve as the foundation for understanding customer needs, sales patterns, and inventory dynamics.
    - These datasets collectively provide a comprehensive view of customer inventory, factory sales, e-commerce sales, total sales, and trade spend, enabling us to derive valuable insights.
- **Do you plan to use external data to aid your analysis(references)?**
  - To enhance our analysis, we plan to incorporate external data through web scraping. This includes gathering data on external factors such as weather

conditions and economic indicators that may impact sales and inventory. Proper references and citations will be provided for any external data sources used.

- **What technologies are involved(software, packages/libraries, techniques?**
  - Python will be used for data analysis and scripting
  - Pandas will be used for data manipulation, Matplotlib and Seaborn for initial visualizations, and potentially advanced visualization tools such as Power BI or Tableau for the final presentation
  - Time-series analysis will be used for seasonality and forecasting models, exploratory data analysis will be used for initial insights, and inventory turnover rate analysis
  - BeautifulSoup and Scrapy will be used for web scraping external data
  - GitHub will be used for collaboration, version control, and documentation of the project