Product Revenue Prediction

## **TEAM MEMBERS**

1. Saichand Thota – A02394497 (Grad Student)

2. Preethi Reddy Tera – A02394358 (Grad Student)

3. Yagnashree Velanki – A02395651 (Grad Student)

COMMENTS

Your topic is good. Please, consider the following comments:

1. When preprocessing the data, be sure to handle any inconsistencies or outliers in addition to missing values. Consider encoding categorical variables and standardizing or normalizing numerical features if necessary.
2. When working on feature selection, consider not only correlation values but also other techniques such as Recursive Feature Elimination (RFE) or feature importance from decision tree-based models. This will help you to identify the most relevant features for predicting product sales.
3. In addition to the machine learning algorithms mentioned, you may want to explore other techniques, such as Lasso and Ridge regression, gradient boosting machines, or support vector machines. Performing cross-validation and hyperparameter tuning will help you find the best model for your dataset.
4. Utilize visualization techniques to gain insights into your data. For instance, display graphs of feature importance, PCA results, correlation matrices, and other visualizations to help you better understand the relationships between variables and their impact on the target variable.
5. Use appropriate evaluation metrics for regression problems, such as Mean Absolute Error (MAE), Mean Squared Error (MSE), Root Mean Squared Error (RMSE), and R-squared. Comparing these metrics across different models will help you select the most effective one for your project.
6. Investigate the possibility of incorporating time-series forecasting methods if there is a temporal component to the sales data. This can provide valuable insights for predicting future sales trends and planning inventory management.
7. When presenting your results, use visualizations such as bar charts, scatter plots, or heatmaps to effectively communicate your findings. This will help stakeholders understand the relationships between various factors and product sales.

Overall, aim to apply the techniques and skills you have learned in the course to this project, and ensure that your approach is thorough and well-documented.

Good luck.