**Capstone Two - Project Proposal**

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**Problem Statement:** Optimizing product prices based on features like reviews, rating, best-seller status, and items sold last month, and predicting sales volume to boost overall sales and revenue (approximately by 20%) for Amazon USA sellers in the future.

**Context:** In the e-commerce landscape, particularly on platforms like Amazon, pricing plays a crucial role in influencing consumer behavior. Sellers need a data-driven approach to ensure that their product prices are competitive and appealing to potential buyers. There is a need for sellers to leverage insights and predictions to enhance their sales strategy on the Amazon USA platform.

**Criteria for Success:** The success of the project is contingent upon the accurate prediction of optimal product prices by the model, leading to an increase in sales and revenue for Amazon USA sellers. Key metrics will assess the model's precision in predicting sales volume, the observed impact of forecasted prices on actual sales, and the overall enhancement in seller profitability.

**Scope of Solution Space:** The project focuses on creating a predictive model for Amazon USA sellers. It considers factors like reviews, ratings, best-seller status, and recent sales to provide actionable insights for optimal pricing and improved sales strategy.

**Constraints:** Non-linear relationships may not be adequately captured. Additional data sources might be needed for comparison.

**Stakeholders:** Amazon USA Sellers: Primary users of the predictive model who seek to optimize their product pricing strategy.Amazon Platform: The platform benefits from increased sales and seller satisfaction.

**Data Source:** The main data source is a Kaggle dataset with product prices from Amazon USA. It includes essential features like reviews, ratings, best-seller status, and recent sales, aligning with the project's goal of creating a model to help sellers set optimal prices.<https://www.kaggle.com/datasets/asaniczka/usa-optimal-product-price-prediction/data>