KINGS ENGINEERING COLLEGE

Department: B.Tech Information Technology

Domain: Applied Data Science

Problem Statement: Future Sales Prediction

Team Members:

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Problem Description:

To optimize inventory management and resource allocation, our objective is to properly estimate future sales**.**

Scope: This involves creating models, for sales forecasting and understanding the factors that influence sales.

Stakeholders: The main stakeholders in this project include the sales teams, inventory managers and decision makers who heavily rely on sales data.

1.Understanding the Problem

Research Findings: Through research we have gathered sales data identified seasonal trends and analyzed fluctuations in market demand.

Interview Insights: We conducted interviews with the sales teams to gain insights into their challenges and understand their pressing need for predictions.

Market Analysis: Our market analysis has revealed how external factors like conditions and competitor actions have an impact, on our sales.

2.Design Thinking Approach

Empathize: Understanding the challenges faced by sales teams and inventory managers to ensure empathy with their needs.

Define: The problem is defined as creating a sales prediction model that factors in historical data and external variables.

Ideate: Brainstorming potential models, algorithms, and data sources for accurate predictions.

Prototype: Creating a prototype predictive model based on initial research and insights.

Test: Plan to test the prototype with historical data and refine it based on feedback.

3.Design Document

Solution Overview: The solution aims to develop a predictive model that provides future sales forecasts with a specified level of accuracy.

Key Features: Key features include data preprocessing, feature engineering, model selection, and continuous monitoring for model refinement.

User Experience: The user experience involves a user-friendly interface to input data and receive sales predictions.

Technical Implementation: Utilizing machine learning algorithms, data preprocessing libraries, and cloud computing for scalability.

4.Project Timeline

Milestones: Milestones include data collection (Month 1), prototype development (Months 2-3), testing and refinement (Months 4-5), and final model deployment (Month 6).

Conclusion

The initial phase sets the foundation for developing an accurate future sales prediction system. Understanding the problem and applying design thinking principles will guide us toward a solution that benefits the organization.