**Machine Learning Model for Customer Spending Prediction**

A prominent retail company, seeks to enhance its marketing strategy by implementing a machine learning model for predicting customer spending limits based on their earnings and earning potential. The goal is to optimize marketing efforts, increase ROI, and provide business users with the tools necessary for data-driven decision-making.

**1. Model Description**

**Objective:** This machine learning model aims to predict customer spending limits using supervised regression techniques.

**Key Features:**

• Earnings: Customer's current earnings.

• Earning Potential: Estimate of a customer's future earning potential.

**Techniques:**

• Utilizes linear regression or decision trees.

• Feature engineering for improved model performance.

**MLOps Integration**

**2. MLOps System**

**Purpose:** This integrated MLOps system facilitates model deployment, training, and testing for seamless integration into the marketing workflow.

**User Interface:**

**• Data Upload:** Business users can upload training data with ease.

**• Feature Selection:** Users can select essential features for model training, specifically 'Earnings' and 'Earning Potential.'

**• Test Data Preview:** Enables users to upload and preview test data.

**• Model Outcome Access:** Provides business users with insights into model outcomes.

**3. Explanations AI Functionality**

**Interpretability:** Explanations AI enhances the model by providing transparent insights into why a particular spending limit was predicted for a customer, promoting user understanding and trust in model outcomes.

**4. Visual Data Analysis**

**Visualization Tools:** Integrated data visualization tools simplify the understanding of model outcomes. This enables users to gain insights into customer segments and spending patterns.

**5. Conclusion**

By predicting customer spending limits based on earnings and earning potential, this solution is expected to enhance marketing ROI and customer targeting capabilities.

This provides a comprehensive overview of the machine learning model, its features, MLOps integration, explanations AI functionality, and visual data analysis tools. It serves as a guide for successful implementation, improving marketing efforts and customer targeting.