**Case Study: Real-Time Customer Sentiment Analysis on Social Media Using Microsoft Fabric**

**Background**

A leading retail company faced challenges in managing customer sentiment on social media. Negative feedback often went unnoticed, leading to customer dissatisfaction and potential loss of business. Retail decided to implement a real-time sentiment analysis solution using Microsoft Fabric to address customer concerns promptly.

**Objectives**

* **Monitor** customer sentiment on social media platforms in real-time.
* **Identify** and **address** negative feedback immediately.
* **Enhance** customer satisfaction and loyalty.
* **Improve** brand reputation by proactively managing social media interactions.

**Solution Implementation**

1. **Data Integration**
   * **Sources**: Social media platforms (Twitter, Facebook, Instagram).
   * **Tools**: Microsoft Fabric’s Data Factory for seamless data ingestion and integration.

**Web url**: https://raw.githubusercontent.com/SeemaMandlik/DP-600-Course-Links/refs/heads/main/customer\_reviews.csv

1. **Real-Time Analytics**
   * Using Microsoft Fabrics Real Time Intelligence service to process social media data
   * To analyse the sentiment of social media posts.
2. **Dashboard and Visualization**
   * **Power BI**: Creating interactive dashboards to visualize sentiment trends and key metrics.
   * **Alerts**: Setting up real-time alerts for negative sentiment spikes.
3. **Actionable Insights**
   * **Automated Responses**: Implementing chatbots to respond to common customer queries and concerns.
   * **Customer Support**: Routing critical issues to customer support teams for immediate resolution.