G3: AI Marketing Campaign

Meet Sam, a passionate restaurant owner who is determined to thrive in the competitive restaurant world. Sam's journey is more than just serving delicious meals; it is about creating lasting connections with every customer. However, amidst fierce competition, Sam faces several pain points:

- **Limited Time for Marketing**: Sam struggles with the demands of running a restaurant, leaving little time to focus on creating and managing multi-channel marketing campaigns (email, SMS, rewards, loyalty programs, social media).
- **Customer Acquisition and Loyalty**: Attracting new customers and converting first-time visitors into loyal patrons is a significant challenge. Sam needs effective strategies to increase customer retention and repeat visits.
- **Customer Engagement and Retention**: Predicting and preventing customer loss, along with re-engaging past customers who haven't visited in a while, are critical areas where Sam lacks resources and expertise.
- **Utilizing Customer Data for Personalization**: Sam has access to a wealth of customer data but needs tools to analyze this data for targeted, personalized marketing efforts to cater to individual customer preferences.

Problem Statement

To address these pain points, Sam needs an automated, AI-driven marketing system. This system should efficiently manage multiple channels, tailor marketing strategies to individual customer preferences, and help in both retaining existing customers and attracting new ones. The goal is to free up Sam's time for restaurant management while ensuring effective customer engagement through AI driven automated marketing.

Challenge

Develop an AI-based marketing system for Sam's restaurant, with three levels of difficulty:

Level 1 - Basic Automation & Analysis

- Analyze the provided data, extract actionable insights, and use them to automate and train the AI model.
- Create a basic AI model that automates the process of sending out generic marketing campaigns across various channels.
- Focus on fundamental data analysis and automated content distribution.

Example: Analyzing the date of birth data and sending automated birthday offers to the relevant customers, without manual input from Sam.

Level 2 - Personalized Marketing Campaigns

- Enhance the AI model to personalize marketing messages based on customer profiles and past interactions.

Example: Analyze customer preferences and send personalized discount offers via SMS or email, tailored to their order history, across multiple platforms.

Level 3 - Advanced Prediction and Retention Strategies

- Develop advanced features like predictive analytics to foresee and act on customer churn.
- Implement sophisticated customer retention strategies using AI-generated insights.
- Create a dynamic feedback loop where the system learns and evolves from each campaign's performance data.

Example: AI predicts which customers are likely to not return (based on factors like decreased visit frequency or lower spending patterns). The system could then automatically create and send special re-engagement offers to these customers, like a "We Miss You" discount or an invitation to a special event at the restaurant.

Bonus Level

- **Content Generation**: Develop a subsystem within your AI solution that can generate creative image, video, and text-based content for use in various marketing campaigns (email, SMS, social media posts, etc.).

Relevant Data

- **CustomerID**: Unique identifier for each customer.
- **FirstName** & **LastName**: Customer's name for personalized communication.
- **Email** & **Phone**: Contact details for direct marketing strategies.
- **DateOfBirth**: To understand customer demographics.
- **Gender**: For gender-specific marketing approaches.
- **OrderDate** & **OrderTime**: Information on customer's ordering habits.
- **OrderSource** & **OrderType**: Insight into preferred ordering methods.

- **DishOrdered**: Understanding of popular dishes and customer preferences.
- **OrderAmount**: To gauge spending patterns.
- **FeedbackRating**: Customer satisfaction level with the service or product.
- **FeedbackComments**: Direct customer feedback for service improvement.

Key Components

- **Customer Data Analysis**: Gain insights into individual customer behaviors and preferences.
- **AI Marketing Campaign Design**: Create AI algorithms for personalized marketing campaigns.
- **Feedback Loop Integration**: Develop a system for learning from customer interactions.
- **Metrics and Evaluation**: Metrics to evaluate campaign effectiveness, focusing on customer acquisition, retention, and re-engagement.

Relevant Task

- **Data Collection**: Gather and clean the necessary data.
- **Model Training**: Train a machine learning model for generating personalized marketing strategies.
- **AI Algorithm Implementation**: Develop AI algorithms for automating campaign designs.
- **Feedback Loop Implementation**: Implement a system for continuous learning.
- **Metrics Establishment**: Define KPIs for each of Sam's goals.
- **Testing and Validation**: Test the system's effectiveness in achieving the defined goals.

Deliverables

- An AI-driven marketing campaign system tailored to Sam's restaurant.
- A comprehensive report detailing your methodology, findings, and the system's impact on achieving Sam's goals.

Evaluation Criteria

Data Analysis
- **Criteria**: Effectiveness in extracting meaningful insights from customer data, including profiles, order history, and feedback.
- **Focus**: Ability to understand and utilize customer preferences and behaviors for AI model training.
- **Measurement**: Quality and depth of data analysis demonstrated in the AI model's ability to predict customer needs and preferences.

Campaign Generation

- **Criteria**: Efficiency and creativity in creating personalized marketing campaigns using AI.
- **Focus**: Generation of campaigns that are tailored to individual customer profiles, preferences, and behaviors.
- **Measurement**: Evaluation of the innovation, personalization, and relevance of the marketing campaigns developed by the AI model.

Adaptability and Learning
- **Criteria**: The system's flexibility and learning capability in adapting to new customer data and market trends.
- **Focus**: Continuous improvement of marketing strategies based on dynamic customer feedback and behavior patterns.
- **Measurement**: Evaluation of the system's learning mechanism through its progression and enhancements over time in response to customer interactions.

Bonus Innovation
- **Criteria**: Creativity and effectiveness in utilizing AI for generating innovative marketing content.
- **Focus**: Development of novel content types and strategies, such as AI-generated images, videos, and text, for enhancing marketing.
- **Measurement**: Originality of AI-generated content and its impact on customer engagement and brand appeal.