Flipkart Grid 6.0

Gen AI Problem Statements

1. AI-Powered Size Chart Generator for Apparel Sellers

Problem Statement

Develop an AI system that generates accurate size charts for apparel sellers with limited or inaccurate size data, based on user body measurements and previous purchase history.

Detailed Description

Create a model that:
- Utilizes a database of user body measurements (height, weight, chest, waist, hip, etc.)
- Analyzes users' previous purchase history and return/exchange data
- Clusters similar body types and their corresponding successful purchases
- Generates a comprehensive size chart for sellers, including measurements for different sizes (S, M, L, XL, etc.)
- Provides confidence scores for each measurement in the generated size chart
- Allows for easy updating as new purchase data becomes available

Judging Criteria

1. Accuracy of generated size charts compared to brands with known accurate data
2. Handling of different apparel categories (e.g., tops, bottoms, dresses)
3. Effectiveness in reducing size-related returns (simulated using holdout data)
4. Scalability and adaptability to new brands or product lines
5. Processing speed and efficiency in generating and updating size charts

2. Voice-Based Real-time Seller Simulation

Problem Statement

Create an AI-powered voice agent capable of simulating a knowledgeable seller, providing real-time product information and answering customer queries with the personality and expertise of an experienced marketplace seller.

Detailed Description

Develop a system that:

- Engages in real-time voice conversations with customers, mimicking the style and knowledge of a product seller
- Understands and responds to complex product queries with low latency (<500ms)
- Accesses and synthesizes information from product databases, market trends, and competitor data
- Adapts its speaking style to match different seller personalities (e.g., enthusiastic tech seller, professional fashion consultant)
- Handles multiple topics within a single conversation (e.g., product features, pricing, availability, comparisons)
- Provides personalized recommendations based on the user's interests and preferences
- Simulates negotiation scenarios and offers relevant deals or bundles

Judging Criteria

1. Naturalness and fluency of voice interactions (avoiding robotic speech)
2. Accuracy and depth of product knowledge in responses
3. Low latency in understanding and generating responses
4. Ability to maintain context and seller persona over long conversations
5. Effectiveness in addressing customer concerns and objections
6. Quality and relevance of personalized recommendations and offers
7. Realism of the seller simulation (as judged by human evaluators)

Body Measurement Dataset Guide

Data Format

Each row in the dataset represents an individual and contains the following values:

1. Gender
2. Height in feet and inches
3. Weight in KG
4. Bust/Chest measurement
5. Cup Size (for females) or Null (for males)
6. Waist measurement

7. Hips measurement
8. Body Shape Index

Measurement Details

For Males:

1. Height in feet and inches
2. Weight in KG
3. Chest measurement
4. Null (placeholder for cup size)
5. Waist measurement
6. Hips measurement
7. Body Shape Index

For Females:

1. Height in feet and inches
2. Weight in KG
3. Bust measurement
4. Cup Size
5. Waist measurement
6. Hips measurement
7. Body Shape Index

Notes:

- Hips and Waist measurements can be "Auto". In case of "Auto", these sizes will be calculated based on the other parameters.

Body Shape Index

The Body Shape Index is represented by a number, corresponding to the following types: 0: Standard/Rectangle 1: Apple 2: Pear 3: Hour Glass 4: Inverted Triangle

Example Entries:

Female Example:

5.8,66,36,A,28,36,0

- Height: 5 feet 8 inches
- Weight: 66 Kg
- Bust: 36 inches
- Cup: A
- Waist: 28 inches
- Hips: 36 inches
- Body Shape: Standard (0)

Male Example:

5.11,86,42,,37,38,

- Height: 5 feet 11 inches
- Weight: 86 Kg
- Chest: 42 inches
- Cup: (empty for males)
- Waist: 37 inches
- Hips: 38 inches
- Body Shape: (not specified in this example)