Project Proposal

Decision Support System: Shoe recommendation system

Motivation

The convenience of online shopping and the growing need for individualized shopping experiences are the driving forces behind the development of a Decision Support System (DSS) for shoe suggestions. Finding the ideal pair of shoes that fits their needs in terms of comfort, style, and function can be difficult for consumers. This system's objective is to make the process of choosing shoes easier by using technology to provide personalized recommendations depending on each user's needs.

Current situation for developing the shoe recommendation system

The current situation emphasizes how important e-commerce is to the retail sector, particularly in the clothing and shoe industries. However, because there is so much choice online, many customers find it difficult to select the perfect shoes, which can cause decision fatigue and disappointment. Therefore, in order to improve the shopping experience, a DSS that makes use of user data and algorithms is required in order to deliver precise and customized shoe recommendations.

Users of the Shoe recommendation system

The following people can make use of the Shoe Recommendation System:

- <u>1. Shoppers/Buyers</u>: People who want to buy shoes online and are looking for advice and tailored suggestions based on their size, style, and other considerations.
- <u>2. E-commerce platforms and retail websites</u>: By including a recommendation system into their websites, e-commerce sites and shops online hope to increase user engagement and happiness.
- 3. Manufacturers/Brands of Shoes: Companies that want to maximize their product offers and marketing strategies should be aware of consumer trends, tastes, and market demands. This includes shoe manufacturers and brands.

<u>Select Criteria:</u> Price, Gender(include unisex products in both categories), Brand, Usage, Material, Feet length/Size, Customer Review, Quality of shoes(waterproof level, comfortability level)

Tentative plan

- <u>1. Obtaining and Analyzing Data:</u> Through collaborations with shops or direct data collection, amass a vast amount of information about shoes, including style, material, size, customer reviews, and preferences.
- <u>2. Algorithm Creation:</u> Create and implement recommendation algorithms that assess user preferences and make precise recommendations by leveraging collaborative filtering or machine learning approaches.
- <u>3. Designing User Interfaces:</u> Provide a simple, easy-to-use interface (web or app-based) that allows users to explore recommendations, enter their preferences, and leave comments.
- <u>4. Customization Elements:</u> Incorporate features that let users customize their experience, like shoe type, color, size, occasion, and compatibility with user-specific needs (like orthopaedic requirements).
- <u>5. Testing and Integration:</u> To guarantee accuracy, relevance, and user happiness, integrate the recommendation system with e-commerce platforms and carry out thorough testing.
- <u>6. Launch and Monitoring:</u> Make the system available to consumers, keep an eye on its functionality, get input, and make ongoing adjustments based on how users interact with it and their preferences.

This plan highlights the need of taking a user-centric approach, with the goal of developing a strong recommendation system that makes choosing shoes easier for customers and provides manufacturers and retailers with insightful data to improve their products and business plans.