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A website that sells cosmetics product that recommends cosmetics to customers based on their preferences using recommendation Engine

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ABSTRACT

The goal of this research endeavor is to develop a cosmetics-selling website that also gives customers cosmetic recommendations according on their browsing preferences. This initiative attempts to solve the issue of assisting consumers in making the best cosmetic product choice, which can be difficult and lengthy for them. The recommendation engine examines customer's browsing histories to make the best product recommendations that fit their tastes and requirements in order to solve this problem.

The cosine similarity algorithm is used in a content-based and collaboration-based filtering strategy on this project's technical side to find products that the user has viewed. The system collects browsing information from products from the same category that the user has viewed The algorithm identifies the most similar products to the target customer and generates the recommendations based on their browsing history.

The accuracy, recall, and F1-score were three data science measures that were used to assess the system's performance. The outcomes demonstrated that the recommendation engine attained a high degree of precision and recall, proving that the system was successful in recommending suitable cosmetic items to customers based on their browsing history. Usability testing was also used to assess the website's user interface, and the results demonstrated that the design was clear and simple to use.

Keywords: recommendation engine, collaborative filtering, cosine similarity, search history, precision, recall, F1-score, usability testing.

Subject Details: E-Commerce, Recommender Systems, Cosmetics, Collaborative Filtering, Usability Testing.