

A Personalized Food Recommendation Application using a Hybrid Collaborative Filtering Approach

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With the increase of workloads, the usage of recommendation platforms for purchasing meals has increased. The diet patterns of individuals are influenced by a multitude of factors including age, health conditions, pregnancy, culture, religion, and location. Existing applications recommend restaurants to the user depending on the user's ratings and locations. However, these apps do not consider personal traits of a user during the recommendation process, so they cannot provide effective suggestions that match the user. None of the existing apps recommend individual food items that suit the user's preference. This research aims to provide a smart solution to this common issue encountered during online food purchases. Through the development of a personalized food recommendation system, the time spent on selecting food items can be decreased. This model will be implemented in 2 sections- a mobile application that allows the users to order food items based on the recommendations, and a web platform that can be used by restaurant owners to maintain their restaurant's profile. The customized recommendation process is implemented by using a hybrid collaborative filtering model, by addressing the data sparsity and scalability issues associated with the content-based and traditional collaborative filtering approaches.

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