Ecommerce Based Product Recommendation System

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Declaration

This is to declare that no part of this report or the project has been previously submitted elsewhere for the fulfilment of any other degree or program. Proper acknowledgment has been provided for any material that has been taken from previously published sources in the bibliography section of this report.

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The Senior Design Project entitled "**Ecommerce Based Product Recommendation System**" by Md. Mukith Al Alim (1711376042), Md. Ashiqur Rahman Ovi (1721444042), Md. Hasibul Hasan (1722351642), Zeeshan Jamal (1731699642) has been accepted as satisfactory and approved for partial fulfilment of the requirement of BS in CSE degree program in Fall 2021.

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Abstract

This paper represents a noble approach to develop a Machine Learning method like Ecommerce Based Product Recommendation System for developing country like Bangladesh. The product recommendation system is a filtering system that seeks to predict and show the items that a user would like to purchase. Recommender systems have become increasingly popular in recent years and utilized in various areas, including movies, news, books, research articles, search queries, social tags, and products in general. It is an essential feature of the digital world. Because users are often overwhelmed by choice and need help finding what they are looking for. If a recommender system is set up and configured properly, it can be the reason for a significant boost in revenues, satisfied customers, and more sales. In this project, we have employed several machine learning algorithms (NCF, SVD, Encoder-Decoder, KNN) to build a recommender system for products and also have developed a website through which users can geta list of recommendations of products based on their preferences. These algorithms' performancesare evaluated on different metrics. KNN has been selected to deploy on the website among all the algorithms.