Exploring Collaborative Filtering Recommender System for Scratch

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 Scratch is an online learning platform developed by Lifelong Kindergarten Group at the MIT Media Labs. Scratch helps young and inexperienced students to develop programming skills and think creatively. With Scratch, one can program interactive stories, games, and animation. It also provides a collaborative platform through which users can share their own code and also see other peoples work. It has often been observed that some users' get demotivated easily because either they are unsure of where to go further after they have started or because the programming exercises are not up to their individual expectations. Thus, the concern arises of how do we keep users motivated on Scratch and improve the user experience. An effective solution is to recommend users with projects from other users according to their level of knowledge and previous experience. This intuitively is known as Recommender Systems (RSs), a system that recommends users with contents based upon their previous activities. Recommender system in an educational environment is proven to be significantly beneficial. We analyse the data made available by Scratch community and try to suggest an effective recommendation method. We explore the traditional recommendation techniques such as content-based filtering and collaborative filtering methods on dataset and compare the recommendation results. We explore the different methods for finding the recommendations from the dataset and the weighted average and multiple linear regression to evaluate the predictions.