**Exploring content based and collaborative recommender system for SCRATCH dataset**

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Scratch is one such TEL 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 students can share their own code and develop on others work. Scratch is also being used in more formal education by teachers to introduce programming concepts to inexperienced users. It has often been observed that some users get demotivated easily because of either they are unsure of where to go further or the programming exercises are not up to their individual expectations. Thus, the concern arises how do we keep students motivated to Scratch and improve the user experience.

An effective solution is to recommend students 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 exercise 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 data and suggest an effective recommendation method. We explore the traditional recommendation techniques i.e. collaborative filtering and content-based filtering techniques on the datasets 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.

Finally, we will also implement a small pythons server and a JS extension to demonstrate the concept of recommendations in scratch.