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Title: Personalized Question Recommender System for Codeforces

Abstract:

Codeforces is an online platform that hosts competitive programming contests and provides a wide range of algorithmic problems for its users to solve. However, with over 10,000 problems available on the platform, it can be overwhelming for users to find relevant questions that match their skill level and interests, especially if they are preparing for job placements.

To address this issue, we propose a personalized question recommender system for Codeforces that takes into account the user's placement preparation needs. Our system is designed to help users identify their strengths and weaknesses by analyzing their past submissions on Codeforces, and also consider common interview topics and question patterns. Based on this analysis, our system determines the user's mastery level for each topic, and sets topic-wise question thresholds to suggest problems that are relevant to their placement preparation.

Our system also takes into account the user's attempts and the difficulty rating of each problem to recommend questions that match their skill level, and provide targeted feedback to help the user improve their performance. We plan to implement our recommender system using the Codeforces API, which provides access to the platform's vast collection of problems, user submissions, and other relevant data. By leveraging this data, we aim to build a highly accurate and personalized question recommender system that helps users prepare for job placements and achieve their programming goals on Codeforces.