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**COLLABORATIVE FILTERING SERVICE RECOMMENDATION BASED ON A NOVEL SIMILARITY COMPUTATION METHOD**

**Abstract:**

Recently, collaborative filtering-based methods are widely used for service recommendation. QoS attribute value-based collaborative filtering service recommendation mainly includes two important steps. One is the similarity computation, and the other is the prediction for QoS attribute value, which the user has not experienced. In previous studies, the performances of some methods need to be improved. In this paper, we propose a ratio-based method to calculate the similarity. We can get the similarity between users or between items by comparing the attribute values directly. Based on our similarity computation method, we propose a new method to predict the unknown value. By comparing the values of a similar service and the current service that are invoked by common users, we can obtain the final prediction result. The performance of the proposed method is evaluated through a large data set of real web services. Experimental results show that our method obtains better prediction precision, lower mean absolute error ( MAE ) and faster computation time than various reference schemes considered.