

Preference Query Formulation and Processing: Ranking and Skyline Query Approaches

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Abstract

As near-infinite amount of data are becoming accessible on the Web, it is getting more and more important to support intelligent query mechanisms, to better help each user to identify the preferred results of manageable size. As such mechanism, ranking and skyline queries have gained a lot of attention lately, which have the following complementary strengths: Ranking queries enable a strong control over the quality and size of query results, while skyline queries support a more intuitive formulation procedure.

In this tutorial, we will explore how user preferences are modeled and how advanced query semantics such as ranking and skyline queries support such preference queries. We then discuss the strengths and weaknesses of the two representative semantics, and recent efforts to combine the strength. We also overview the existing research works on processing ranking and skyline queries efficiently.

*(3-hour tutorial in 13th International Conference on Database Systems
for Advanced Applications (DASFAA 2008), New Delhi, India, 2008)*