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| BI 1 | query | BI / read / 15 |
|--|---------|--|
| BI 2 | title | Trusted connection paths through forums created in a given timeframe |
| BI 3 BI 4 BI 5 BI 6 BI 7 BI 8 BI 9 BI 10 BI 11 BI 12 BI 13 BI 14 BI 15 BI 16 BI 17 BI 18 BI 19 BI 20 | pattern | Enumerate all unweighted shortest paths on knows edges between person1 to person2. person1: Person id = \$person2id Case 1: Replies on Posts, weight += 1.0 × count(c) personA: Person hasCreator c: Comment replyOf → post: Post containerOf forum: Forum \$start ≤ creationDate shortest paths on knows edges between the pair of Persons of the edge, calculated as a sum of cases #1 and #2 for the Persons (both ways), and the sum of these weights determine the total weight of each path. pl knows py knows py pw knows pz Case 2: Replies on Comments, weight += 0.5 × count(c1) personA: Person hasCreator c: Comment replyOf → post: Post containerOf forum: Forum \$start ≤ creationDate and creationDate ≤ \$end |
| | desc. | Given two Persons, find all (unweighted) shortest paths between these two Persons, in the subgraph induced by the knows relationship. Then, for each path calculate a weight. The nodes in the path are Persons, and the weight of a path is the sum of weights between every pair of consecutive Person nodes in the path. The weight for a pair of Persons is calculated based on their interactions: • Every direct reply (by one of the Persons) to a Post (by the other Person) contributes 1.0. • Every direct reply (by one of the Persons) to a Comment (by the other Person) contributes 0.5. Only consider Messages that were created in a Forum that was created within the timeframe (interval) [startDate, endDate]. Note that for Comments, the containing Forum is that of the Post that the comment (transitively) replies to. Also note that interactions are counted both ways. Return all paths with the Person IDs ordered by their weights descending. |
| | params | 1 person1Id ID 2 person2Id ID 3 startDate Date 4 endDate Date |
| | result | 1 person.id [ID] C Ordered sequence of the Person IDs in the path 2 weight 64-bit Float C |
| | sort | 1 weight ↓ The order of paths with the same weight is unspecified 2 personIds ↑ The IDs in the paths are used for lexicographical sorting |
| | CPs | 1.2, 2.1, 2.2, 2.4, 3.3, 5.1, 5.3, 7.2, 7.3, 7.5, 7.7, 8.1, 8.2, 8.3, 8.4, 8.5, 8.6 |