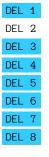
| DEL | 1 |
|-----|---|
| DEL | 2 |
| DEL | 3 |
| DEL | 4 |
| DEL | 5 |
| DEL | 6 |
| DEL | 7 |
| DEL | 8 |

| query     | BI / delete / 1  |  |  |
|-----------|--|--|--|
| title     | Remove person and its personal forums and message (sub)threads   |  |  |
|           | Message  |  |  |
|           | Company workAt hasMember Forum (Group/Album/Wall)  |  |  |
| pattern   | University ← studyAt ← studyAt ← hasModerator ← (Group)  |  |  |
|           | Message  b invoke delete operation 6 (Posts) or operation 7 (Comments)  hasCreator  hasModerator  hasModerator  to invoke delete operation 4   |  |  |
| desc.     | Remove a Person and its edges (isLocatedIn, studyAt, workAt, hasInterest, likes, knows, hasMember, hasModerator, hasCreator). Additionally, remove the Album and Wall Forums whose moderator is the Person and remove all Messages the Person has created in the rest of the Forums (Groups).  |  |  |
| params    | 1 personId   ID  |  |  |
| CPs       | 9.3, 9.4, 9.5  |  |  |
| relevance | <ul> <li>Removal of a Person removes Forums of type "Walls" and "Albums" but not "Groups", which can continue if even the founder has left the network. For Groups, the hasModerator edge is deleted. We have discussed various approaches to appoint a new moderator, e.g.</li> <li>1. choose member at random from the set of existing group members or</li> <li>2. the member with the oldest group join date becomes the moderator. However, to keep the generator and the workload simple, currently no moderator is selected, leaving the group without a moderator.</li> <li>Removal of a Person removes all Posts/Comments they are creator of this could result in the removal of a Comment in the middle of a thread.</li> </ul> |  |  |

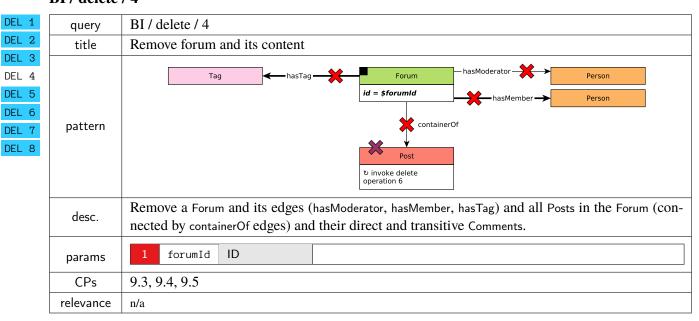
## BI / delete / 2



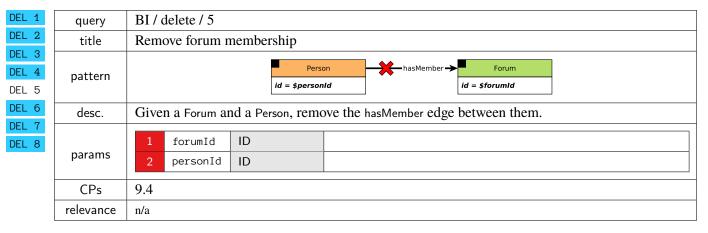
| query     | BI / delete / 2  |  |  |
|-----------|--|--|--|
| title     | Remove post like   |  |  |
| pattern   | Person  id = \$personId  id = \$postId   |  |  |
| desc.     | Given a Person and a Post, remove the likes edge between them.   |  |  |
| params    | 1 personId ID 2 postId ID  |  |  |
| CPs       | 9.4  |  |  |
| relevance | Removal of a likes edge is a rare event, e.g. people accidently liking a Post, this can be reflected by the relative frequency of the operation. |  |  |

| DEL 1 | query     | BI / delete / 3   |  |  |
|-------|-----------|---|--|--|
| DEL 2 | title     | Remove comment like   |  |  |
| DEL 3 |           |   |  |  |
| DEL 4 | pattern   | Person Comment Comment  |  |  |
| DEL 5 | •         | id = \$personId   |  |  |
| DEL 6 | desc.     | Given a Person and a Comment, remove the likes edge between them.   |  |  |
| DEL 7 |           |   |  |  |
| DEL 8 |           | 1 personId   D  |  |  |
|       | params    | 2 commentId ID  |  |  |
|       | CPs       | 9.4   |  |  |
|       | relevance | Removal of a likes edge is a rare event, e.g. people accidently liking a Comment, this can be reflected by the relative frequency of the operation. |  |  |

### BI / delete / 4



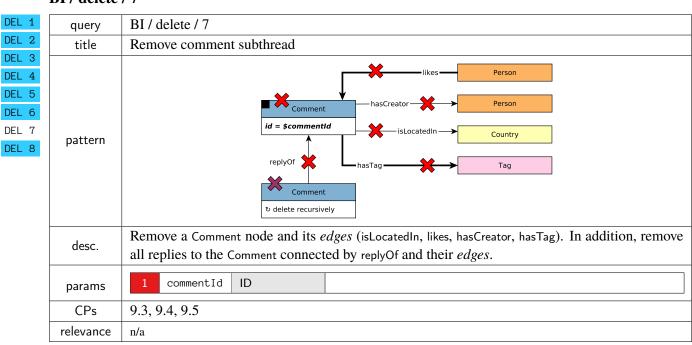
### BI / delete / 5



| DEL 1 | query   | BI / delete / 6   |
|-------|---------|---|
| DEL 2 | title   | Remove post thread  |
| DEL 3 |         |   |
| DEL 4 |         | likes — Person  |
| DEL 5 |         | <b>→</b>  |
| DEL 6 |         | Forum Post hasCreator Person  |
| DEL 7 |         | id = \$postId isLocatedIn → Country   |
| DEL 8 | pattern |   |
|       | p 2222  | hasTag Tag  |
|       |         | replyOf   |
|       |         |   |
|       |         | Comment   |
|       |         | ⊍ invoke delete<br>operation 7  |
|       |         | operation 7   |
|       |         | Remove a Post node and its edges (isLocatedIn, likes, hasCreator, hasTag, containerOf). Remove all  |
|       | desc.   | replies to the Post and the connecting replyOf edges. In addition, remove all transitive reply Com- |
|       | desc.   |   |
|       |         | ments to the Post and their edges.  |
|       |         | 1 post Id ID  |
|       | params  | 1 postId ID   |
|       | CPs     | 9.3, 9.4, 9.5   |

### BI / delete / 7

relevance



| DEL 1             | query     | BI / delete / 8   |  |
|-------------------|-----------|---|--|
| DEL 2             | title     | Remove friendship   |  |
| DEL 3 DEL 4 DEL 5 | pattern   | Person id = \$person1ld id = \$person2ld                    |  |
| DEL 6             | desc.     | Given two Person nodes, remove the knows edge between them. |  |
| DEL 8             | params    | 1 person1Id   ID   2 person2Id   ID                         |  |
|                   | CPs       | 9.4   |  |
|                   | relevance | n/a   |  |