

1) Graph model

Here is an example to illustrate the graph model.

Graph creation script using cypher as language:

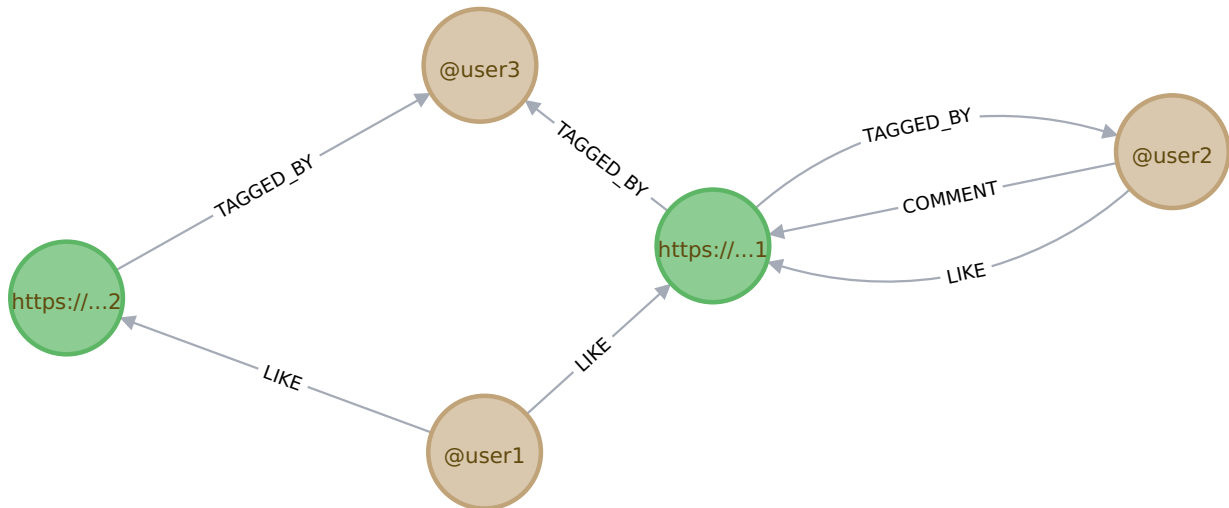
```
CREATE (user1:user {telegramId: '@user1'})
CREATE (user2:user {telegramId: '@user2'})
CREATE (user3:user {telegramId: '@user3'})

CREATE (document1:document {url: 'https://...1'})
CREATE (document2:document {url: 'https://...2'})

CREATE (document1)-[:TAGGED_BY {label: 'label1'} ]->(user3)
CREATE (document1)-[:TAGGED_BY {label: 'label2'} ]->(user2)
CREATE (document2)-[:TAGGED_BY {label: 'label3'} ]->(user3)

CREATE (user1)-[:LIKE{coefficient: 1}]->(document1)
CREATE (user1)-[:LIKE{coefficient: 1}]->(document2)
CREATE (user2)-[:LIKE{coefficient: -1}]->(document1)
CREATE (user2)-[:COMMENT {comment: 'interesting document.'}]->(document1)
```

And here is a visual representation of the graph;



legend: green nodes: documents, yellow nodes: users, pink nodes: tags, blue tags labels.

2) Document model

Documents are identified by an url, have a title and a content.

The document model could be represented with a json:

```
{
  "_id": { "url": "https://..." },
  "title": "document title",
  "content": "content",
}
```

3) Requests

Simple requests

- documents: retrieve all documents (or n documents)
- likedBy: retrieve documents that were liked by a user.
- users: retrieve all users (or n users)
- user: retrieve simple informations about a user: what he liked and commented

Advanced Requests

- getDocsByTag: list documents that relate to some specified tags.
- getUsersByTag: list users that relate to some specified tags.
- getUserTag: get tags that seems to relate with the specified user.
- getNUsersClusters: forms n groups of users such as users within a same group are "alike". The exact meaning of alike is not clear yet, but it will probably be based on tags associated to users.