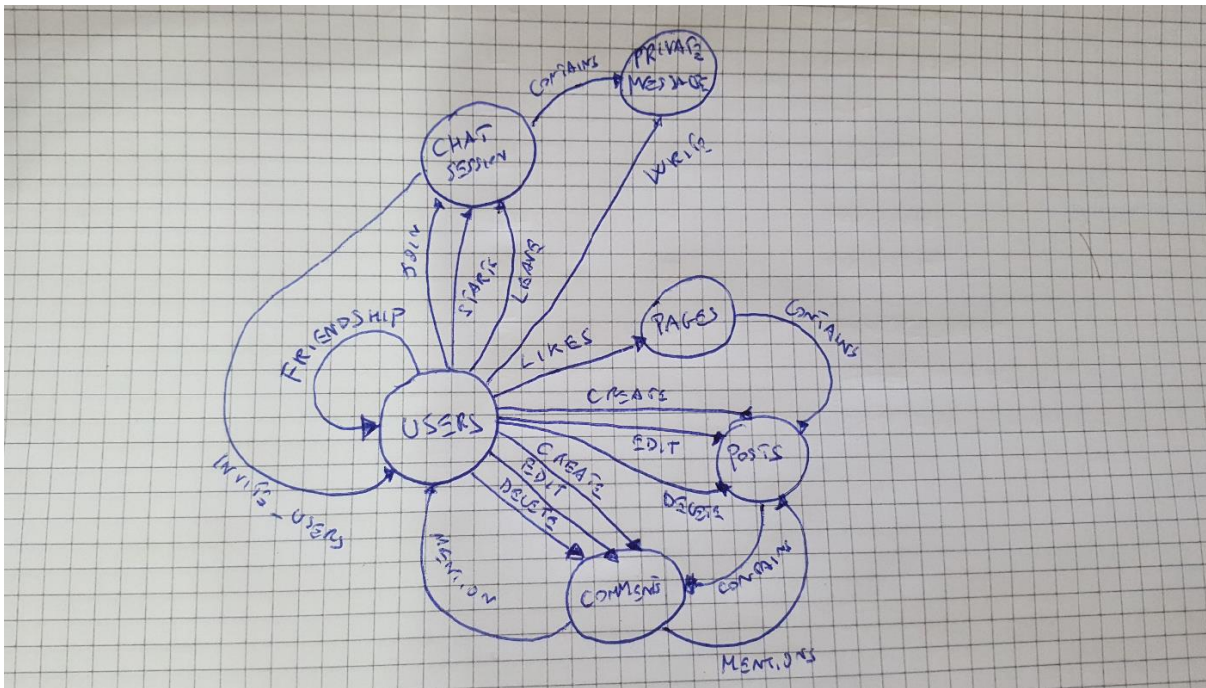


GRAPHS IN EVERYDAY LIFE ASSIGNMENT



I thought a simple Social Network with a basic functionality such as create posts, comments them, ask friendship, chat and like pages.

Below is a list of nodes and edges :

ID	NODE
1	Users
2	Pages
3	Posts
4	Comments
5	Chat Sessions
6	Private Messages

SRC_ID	DST_ID	EDGE_TYPE (E)
1	1	Friendships
1	2	Likes
1	3	Creates
1	3	Edits
1	3	Deletes
1	4	Creates
1	4	Edits
1	4	Deletes
1	4	Likes
1	5	Starts
1	5	Leaves

1	5	Joins
1	6	Writes
2	3	Creates
2	3	Edits
2	3	Deletes
2	4	Creates
2	4	Edits
2	4	Deletes
4	1	Mentions
4	2	Mentions
5	1	Invite
5	6	Contains
2	3	Contains
3	4	Contains

A Social Network like this could provide tons of questions and answers, for example:

- Who is the influencer of the network? Users with lots of friends and pages with lots of likes are the best candidates to be defined as such. A useful metric is Degree of Centrality.
- What is the trending topic/ posts? We can retrieve the trending topic based on the number of interactions such as comments and likes and compute TF-IDF for each returned comment.
- What are the most active Users? Users (or pages) with N likes or comments X Day is very active.
- What are the suggested users for each user? We should find the closest non friend neighbours and suggest to each user respectively.