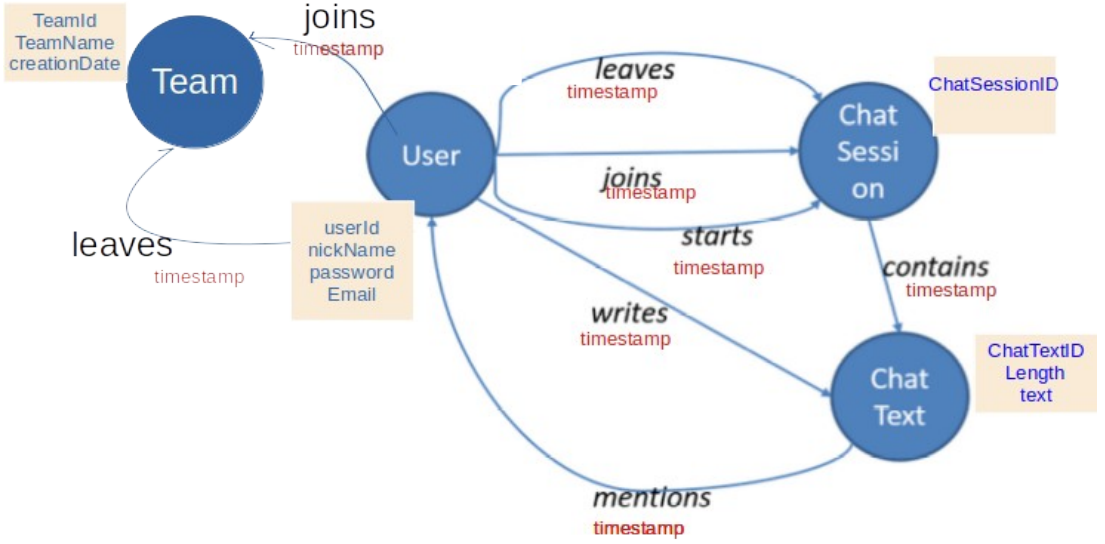

id	Property
team	teamID teamName creationDate
user	UserId nickName email Password playerCategory
chatSession	chatSessionID
chatText	chatTextID textLenght

SrcId	DstID	Property(E)
user	team	joins
user	team	leaves
user	chatSession	starts
user	chatSession	joins
user	chateSession	leaves
ChatSession	ChatText	contains
user	ChatText	writes
chatText	user	mentions

Questions

Briefly explain how you would use the graph to answer the following five questions?

1) Which teams are having more conversations?

A new node **team** node has been added to the original graph to answer this question.

ChatSession (conversation) is linked to **team** by **user**

A user joins a team and is associated to it since it leaves

user "**starts**" or joins a **ChatSession**

So we can answer to the question considering total chatSession for each user of each teams

1) Do users chat more (or less) before they leave a team?

Assumption : chatting more/less is related to the number of chatSessions a user starts / joins

Through the timestamp of the egde starts and joins of the user and chatsession we can measure the numenr of session over the time

The edge a user "leaves" a groups has also its timestamp and we can understand the user chatting behavior before and after the even

1) What are the dominant terms (words) used in a chat session within a specific time period?

Considering the timestamps of the edge "contains" we able capable to have all chaText in the specific period of time

these chatText are a documet vector and a it-tdf matrix could be build to provide the frequency of the terms

1) Which users are most active in a specific chat session?

In a specific session, each user writes chatText. The tot chatText for each user of the session provide the answer

- How many chat sessions is a user participating in at the same time?

User and session are linked through 3 edges (starts , joins & leaves) each of them with a specific timestamp

In a time x, the number of chatSessions is the tot chatSession the user starts and joins excluding the sessions left