## 1. Translation to the Relational Model

```
[users] : {[username: varchar, email: varchar, join_date: date]}
[viewers] : {[vid: (users), watchtime: time]}
[creators] : {[cid: (users), total_views: int]}
[channels] : {[id: int, name: varchar, owner: (creators)]}
[comments] : {[id: int, text: varchar, poster: (viewers), video: (videos), timestamp: datetime]}
[videos] : {[id: int, title: varchar, description: varchar, duration: time, views: int, creator: (creators), editing_software: varchar]}
[subscribe] : {[viewer: (viewers), channel: (channels)]}
```