

Design Database Schema for a system like Netflix with following Use Cases.

Use Cases

1. **Netflix has users.**
2. **Every user has an email and a password.**
3. **Users can create profiles to have separate independent environments.**
4. **Each profile has a name and a type. Type can be KID or ADULT.**
5. **There are multiple videos on netflix.**
6. **For each video, there will be a title, description and a cast.**
7. **A cast is a list of actors who were a part of the video. For each actor we need to know their name and list of videos they were a part of.**
8. **For every video, for any profile who watched that video, we need to know the status (COMPLETED/ IN PROGRESS).**
9. **For every profile for whom a video is in progress, we want to know their last watch timestamp.**

User (**userId**, Email, Password)

PK: userId

FK : No

Index: No

Profile (**profile_id**, Name, Type, userId)

PK: profile_id

FK: userId

Index: No

ProfileType (**TypeId**, Value - KID/ADULT)

PK: TypeId

FK : NO

Index: NO

Videos (**VideoId**, Title, Description)

PK: VideoId

FK: No

Index: no

Actor (**actorId**, Name)

PK: actorId

FK: no

Index: no

Video_Actors(**videoId**, **ActorId**)

PK: videoId + ActorId

FK: videoId, actorId

- Index 1: videoId + ActorId (default) OR videoId
- Index 2: ActorId

StatusType(**StatusTypeId**, Value - COMPLETED/INPROGRESS)

PK: statusTypeId

FK: No

Index: No

VideoWatch(**profileId**, **videoId**, watchTimeStamp, StatusTypeId)

PK: profileId + videoId

FK: profileId, videoId, statusTypeId

Index: (profileId, videoId)

AND (videoId) depending upon requirements (**Most watch videos**)

Both (profileId, videoId) or (videoId, ProfileId) can act as primary keys because
Combination of both will be always unique

But a default index is created on primary key,

Thinking of a use case a you want to show list video that a particular profile was
watching on login -> better option will be (**profileId, videoId**)

```
CREATE TABLE Orders (  
    OrderID int NOT NULL,  
    OrderNumber int NOT NULL,  
    PersonID int,  
    PRIMARY KEY (OrderID),  
    FOREIGN KEY (PersonID) REFERENCES Persons(PersonID)
```

