

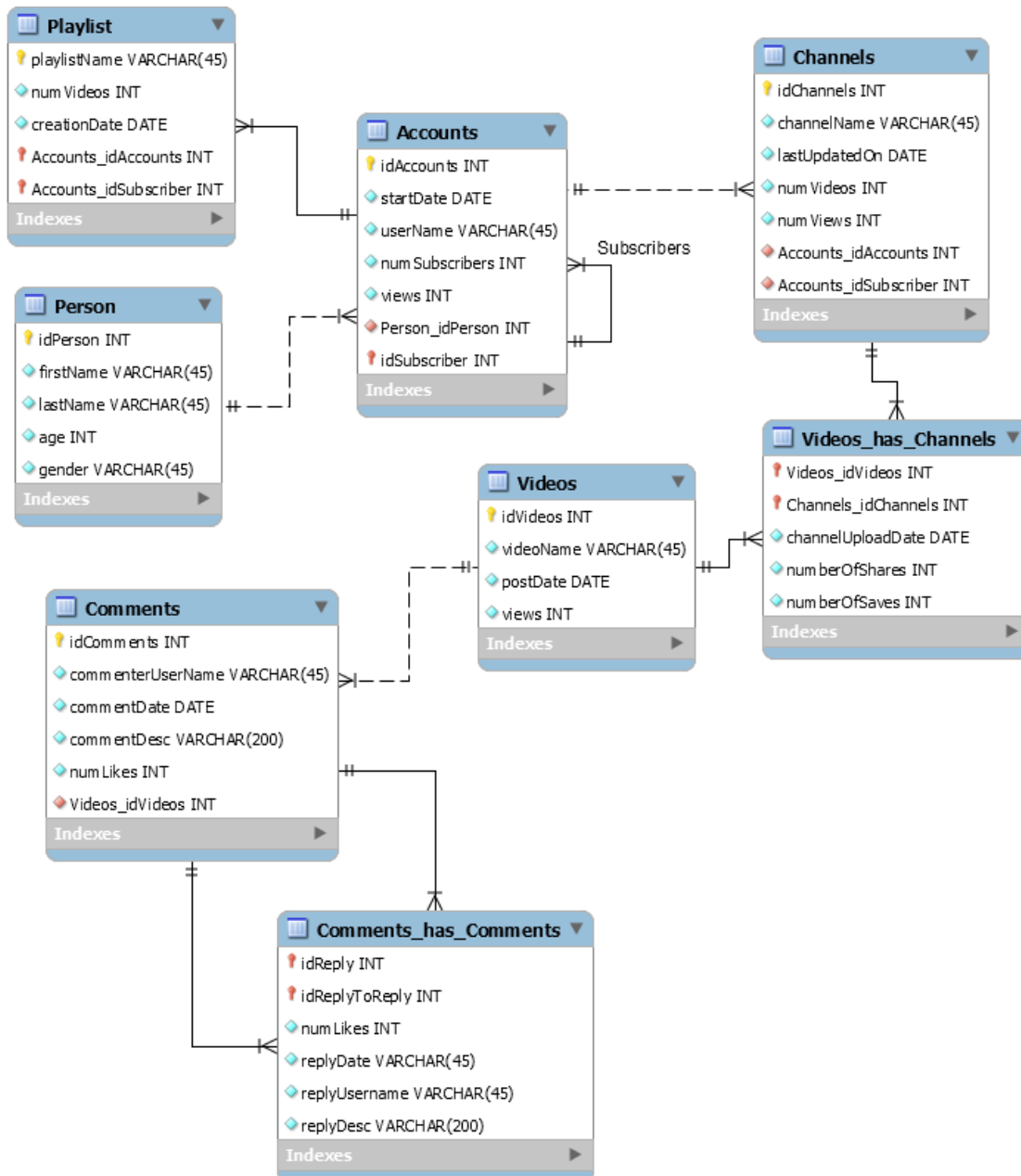
Database Project 2

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1. **Concept:** According to data compiled by Sandvine, a manufacturer of broadband technology, YouTube, a popular video-streaming site, comprises 17.1 percent of all peak-period traffic in North America. This means that data involving the chief drivers of this service, YouTubers, must be highly sought, protected, and studied. Our data model would help YouTubers, as well as the public, garner real-time data regarding popular videos, popular topics, and aid in maintaining a successful channel.

2. Data Model



3. 10 Queries

1. Multi Table Join

A YouTuber , Zoella Sugg (ID = 1001) is trying to evaluate how active she is on each account. List each of her accounts, specifying the user name, and number of playlists per account, as well as sum of videos on each playlist.

```
> SELECT userName, COUNT(playlistName) AS 'Number Playlists Per Account',  
SUM(numVideos) AS 'Number Videos in this Accounts Playlist'  
FROM Playlist, Accounts, Person  
WHERE Accounts.idAccounts = Playlist.Accounts_idAccounts  
AND Playlist.Accounts_idSubscriber = Accounts.idSubscriber  
AND Person.idPerson = Accounts.Person_idPerson  
AND Person.idPerson = 1001  
GROUP BY userName
```

```
***** 1. row *****  
        userName: MoreZoella  
        Number Playlists Per Account: 5  
        Number Videos in this Accounts Playlist: 503  
***** 2. row *****  
        userName: Zoella  
        Number Playlists Per Account: 4  
        Number Videos in this Accounts Playlist: 351  
***** 3. row *****  
        userName: ZoeyLovesAlfie  
        Number Playlists Per Account: 1  
        Number Videos in this Accounts Playlist: 1  
3 rows in set
```

2. Subquery

Select all the accounts with more than 50,000 subscribers.

```
> SELECT *  
FROM Accounts  
WHERE idAccounts IN (SELECT idAccounts  
                     FROM Accounts  
                     WHERE numSubscribers >50000)
```

```
***** 1. row *****  
        idAccounts: 2341  
        startDate: 2007-02-02  
        userName: Zoella  
        numSubscribers: 9438447  
        views: 585100544  
        Person_idPerson: 1001  
        idSubscriber: 3912  
***** 2. row *****  
        idAccounts: 2351  
        startDate: 2010-01-18
```

```

        userName: Spinkleofglitter
numSubscribers: 2303660
        views: 123519167
Person_idPerson: 1002
        idSubscriber: 3915
***** 3. row *****
        idAccounts: 3452
        startDate: 2012-09-04
        userName: MoreZoella
numSubscribers: 3609188
        views: 332178430
Person_idPerson: 1001
        idSubscriber: 3913
***** 4. row *****
        idAccounts: 6345
        startDate: 2012-07-25
        userName: SprinkleofChatter
numSubscribers: 1033696
        views: 61630478
Person_idPerson: 1002
        idSubscriber: 3914
***** 5. row *****
        idAccounts: 7345
        startDate: 2006-10-12
        userName: danisnotonfire
numSubscribers: 5239565
        views: 436955289
Person_idPerson: 1003
        idSubscriber: 3916

```

3. Correlated Subquery

Find the commenter of each video with the greatest number of likes for that particular video.

```

> SELECT videoName, commenterUserName, numLikes
   FROM Videos thisVid, Comments
  WHERE numLikes =
        (SELECT MAX(numLikes)
         FROM Videos, Comments
        WHERE Videos.idVideos = Comments.Videos_idVideos
          AND Videos.idVideos = thisVid.idVideos)

```

```

***** 1. row *****
        videoName:
commenterUserName:
        numLikes: 0
***** 2. row *****
        videoName: Chased with Chainsaws
commenterUserName: ThatcherJoe
        numLikes: 6383
***** 3. row *****
        videoName: Book Launch & Halloween Night In | ad

```

```

commenterUserName: CharleyColeman
numLikes: 251
***** 4. row *****
videoName: Christmas Beauty Products
commenterUserName: drakeandjosh
numLikes: 235245
***** 5. row *****
videoName: Scary Halloween Pup
commenterUserName: carebear
numLikes: 234235
***** 6. row *****
videoName: Autumn & Halloween House Tour
commenterUserName: followtheleaders234234
numLikes: 9742
6 rows in set

```

4. Group By

The YouTubers would like to see the total amount of subscribers for each of their accounts, combined, but only for accounts that have been created in or after 2005. List the person id, person name, and total subscribers for each individual person on YouTube. List in ascending order of number subscribers.

```

> SELECT idPerson, firstName, lastName, SUM(numSubscribers)
FROM Person, Accounts
WHERE Person.idPerson = Accounts.Person_idPerson
AND YEAR(startDate) >= 2005
GROUP BY idPerson
ORDER BY SUM(numSubscribers) ASC

```

```

***** 1. row *****
idPerson: 1006
firstName: Sona
lastName: Gasparian
SUM(numSubscribers): 352
***** 2. row *****
idPerson: 1005
firstName: Alfie
lastName: Deyes
SUM(numSubscribers): 1333
***** 3. row *****
idPerson: 1004
firstName: Jenna
lastName: Mourney
SUM(numSubscribers): 22453
***** 4. row *****
idPerson: 1002
firstName: Louise
lastName: Pentland
SUM(numSubscribers): 3337356
***** 5. row *****

```

```

        idPerson: 1003
        firstName: Dan
        lastName: Howell
SUM(numSubscribers): 5239565
***** 6. row *****
        idPerson: 1001
        firstName: Zoella
        lastName: Sugg
SUM(numSubscribers): 13270968
6 rows in set

```

5. Group by with Having

YouTube is trying to screen its videos for high-profile fans. It wants to do this by identifying signs of excitement in the syntax of comments, such as “!”, “Awesome”, “love you”, “😊”. For each video, list the comment and commenter user name of those comments displaying high signs of excitement. List the video names alphabetical order.

```

> SELECT idVideos, videoName, commentDesc, commenterUserName
FROM Videos, Comments
WHERE Videos.idVideos = Comments.Videos_idVideos
AND commentDesc REGEXP '![Awesome|awesome|love you]'
ORDER BY videoName

```

```

***** 1. row *****
        idVideos: 94
        videoName: Autumn & Halloween House Tour
        commentDesc: YES! :D
        commenterUserName: followtheleaders234234
***** 2. row *****
        idVideos: 91
        videoName: Book Launch & Halloween Night In | ad
        commentDesc: OMG THEY ARE PLAYING MCFLY IN THE BACKGROUND AT
ASDA!!!
        commenterUserName: CharleyColeman
***** 3. row *****
        idVideos: 91
        videoName: Book Launch & Halloween Night In | ad
        commentDesc: Cant wait to read your book!!
        commenterUserName: SecretsofBeauty
***** 4. row *****
        idVideos: 90
        videoName: Chased with Chainsaws
        commentDesc: Joes pumpkin mask was the funniest thing ever!
        commenterUserName: MichelleDickensen-Bennett
***** 5. row *****
        idVideos: 90
        videoName: Chased with Chainsaws
        commentDesc: Also... You had listened to that Adele song about 500 times before I had even
got out of bed!
        commenterUserName: ThatcherJoe
***** 6. row *****

```

idVideos: 90
videoName: Chased with Chainsaws
commentDesc: I literally just finished your last vlog, went to my subscription page, and now I am watching this. An hour of Zoe, yessssss!!

commenterUserName: ShelbyRose

***** 7. row *****

idVideos: 92
videoName: Christmas Beauty Products
commentDesc: So proud of you Zoe!!

commenterUserName: Herr62

***** 8. row *****

idVideos: 92
videoName: Christmas Beauty Products
commentDesc: !!!!! AHHHHH SPAM MUA HA HA

commenterUserName: drakeandjosh

8 rows in set

6. Order By

YouTube is looking for its most popular and long-standing users. It wants to do this by finding all of the people with accounts created before or in 2010, who have more than 10,000 subscribers, and at least over 50,000 views

Alphabetize the results by the account-holders last name.

```
> SELECT lastName, firstName, idPerson, age, gender, numSubscribers, numViews
FROM Person, Accounts, Channels
WHERE Person.idPerson = Accounts.Person_idPerson
AND YEAR(startDate) <= 2010
AND numSubscribers > 10000
AND numViews > 50000
GROUP BY Person.idPerson
ORDER BY lastName
```

***** 1. row *****

lastName: Howell
firstName: Dan
idPerson: 1003
age: 24
gender: Male
numSubscribers: 5239565
numViews: 4129745

***** 2. row *****

lastName: Mourney
firstName: Jenna
idPerson: 1004
age: 29
gender: Female
numSubscribers: 22453
numViews: 4129745

***** 3. row *****

lastName: Pentland
firstName: Louise

```

idPerson: 1002
age: 30
gender: Female
numSubscribers: 2303660
numViews: 4129745
***** 4. row *****
lastName: Sugg
firstName: Zoella
idPerson: 1001
age: 25
gender: Female
numSubscribers: 9438447
numViews: 4129745
4 rows in set

```

7. Divide

Select all videos that appear in every channel.

```

> SELECT idVideos, videoName
FROM Videos
WHERE NOT EXISTS
    (SELECT * FROM Channels
    WHERE NOT EXISTS
        (SELECT * FROM Videos_has_Channels
        WHERE Videos.idVideos = Videos_has_Channels.Videos_idVideos
        AND Channels.idChannels = Videos_has_Channels.Channels_idChannels))

```

```

***** 1. row *****
idVideos: 1
videoName: My First Video!!

```

8. In or Not In

Find all the comments that are replies to this particular comment: “Also... You had listened to that Adele song about 500 times before I had even got out of bed!”

```

> SELECT *
FROM Comments_has_Comments
WHERE idReply IN
    (SELECT idReply
    FROM Comments_has_Comments
    WHERE Comments_has_Comments.idReply = Comments.idComments
    AND commentDesc REGEXP 'Also... You had listened to that Adele song about 500 times
before I had even got out of bed!')

```

```

***** 1. row *****
idReply: 2
idReplyToReply: 23
numLikes: 3282
replyDate: 2009-1-21
replyUsername: Sam
replyDesc: is this the real JOE?!

```

***** 2. row *****

idReply: 2
idReplyToReply: 24
numLikes: 879
replyDate: 2015-11-10
replyUsername: PineappleTwinz
replyDesc: lets arm wrestle

***** 3. row *****

idReply: 2
idReplyToReply: 25
numLikes: 3892
replyDate: 2013-10-31
replyUsername: Kitten91410
replyDesc: Hi Joeee nice pumpkin face!! From Shari Xx

3 rows in set

9. Built-In Function

Find the account id, user name, user of the account, and number of subscribers of the account with the most number of subscribers on YouTube.

```
> SELECT idAccounts, userName, firstName, lastName, numSubscribers
FROM Accounts, Person
WHERE Person.idPerson = Accounts.Person_idPerson
AND numSubscribers =
    (SELECT MAX(numSubscribers)
     FROM Accounts)
```

***** 1. row *****

idAccounts: 2341
userName: Zoella
firstName: Zoella
lastName: Sugg
numSubscribers: 9438447
1 rows in set

10. Exists to not exists

Find all of the beauty-related channels on YouTube, identified by having the words 'Beauty, Hair, Haul, Nails,' or 'Fashion' in its name. List the channels in terms of the most recently updated.

```
> SELECT *
FROM Channels
WHERE EXISTS
    (SELECT * FROM Videos, Videos_has_Channels
     WHERE Videos.idVideos = Videos_has_Channels.Videos_idVideos
     AND channelName REGEXP ('Beauty|Hair|Haul|Nails|Fashion'))
ORDER BY lastUpdatedOn
```

***** 1. row *****

idChannels: 12343
channelName: Hauls

Matrix:

[illegible]