11/12/2020
Lab 7

<mark>Part 2 Putting All Together</mark>

```
/*
        Course: IST 659
        Term: Fall 2020
*/

-- part 1 exploratory data analysis

--To ensure the database is properly set up, code and execute the following SQL SELECT
statement
select
vc_User.UserName,
vc_User.EmailAddress,
vc_VidCast.vc_VidCastID
from vc_VidCast
join vc_User on vc_User.vc_UserID = vc_VidCast.vc_UserID
order by vc_User.UserName


-- look for users who have not yet made any VidCasts
select * from vc_User
where vc_UserID not in (select vc_UserID from vc_VidCast)


-- be sure to include all vc_User records even if they don't have any vidcasts
select
vc_User.UserName,
vc_User.EmailAddress,
vc_VidCast.vc_VidCastID
from vc_VidCast
right join vc_User on vc_User.vc_UserID = vc_VidCast.vc_UserID
order by vc_User.UserName


-- high-level descriptive statistics for vc_VidCast
select
count(vc_VidCastID) as NumberOfVidCasts,
sum(ScheduleDurationMinutes) as TotalScheduledMinutes,
min(ScheduleDurationMinutes) as MinScheduledMinutes,
avg(ScheduleDurationMinutes) as AvgScheduledMinutes,
max(ScheduleDurationMinutes) as MaxScheduledMinutes
from vc_VidCast


-- our least prolific users
select
vc_User.UserName,
vc_User.EmailAddress,
count(vc_VidCast.vc_VidCastID) CountOfVidCasts
from vc_VidCast
right join vc_User on vc_User.vc_UserID = vc_VidCast.vc_UserID
group by
vc_User.UserName,
vc_User.EmailAddress
having count(vc_VidCast.vc_VidCastID) < 10
order by vc_User.UserName
```

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```sql
-- number of minutes between StartDateTime and EndDateTime for all VidCasts with a
Finished status
select
vc_User.UserName,
vc_User.EmailAddress,
sum(datediff(n, StartDateTime, EndDateTime)) as SumActualDurationMinutes
from vc_VidCast
join vc_User on vc_User.vc_UserID = vc_VidCast.vc_UserID
join vc_Status on vc_Status.vc_StatusID = vc_VidCast.vc_StatusID
where vc_Status.StatusText = 'Finished'
group by
vc_User.UserName,
vc_User.EmailAddress
order by vc_User.UserName


-- part 2 putting it all together

-- Amend the query from the end of part one, adding the count of VidCasts, minimum,
average, and maximum actual durations for each vc_User record. Sort the results in
descending order by the count of videos, then by the UserName.
select
vc_User.UserName,
vc_User.EmailAddress,
sum(datediff(n, StartDateTime, EndDateTime)) as SumActualDurationMinutes,
count(vc_VidCast.vc_VidCastID) as NumberOfVidCasts,
min(datediff(n, StartDateTime, EndDateTime)) as MinActualDurationMinutes,
avg(datediff(n, StartDateTime, EndDateTime)) as AvgActualDurationMinutes,
max(datediff(n, StartDateTime, EndDateTime)) as MaxActualDurationMinutes
from vc_VidCast
join vc_User on vc_User.vc_UserID = vc_VidCast.vc_UserID
join vc_Status on vc_Status.vc_StatusID = vc_VidCast.vc_StatusID
where vc_Status.StatusText = 'Finished'
group by
vc_User.UserName,
vc_User.EmailAddress
order by vc_User.UserName
```