National University of Computer and Emerging Sciences

In-Lab 6 Exercise

"Nested Queries"

Database Systems

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Schema:

For this exercise use the following schema, the script to create this schema and populate data is given in Twitter.SQL file.

users

	UserName	Age	Country
1	Ali123	18	Pakistan
2	Aliza	40	USA
3	Aysha	19	Iran
4	DonaldTrump	60	USA
5	ImranKhan	55	Pakistan
6	Natasha	28	USA
7	Samuel	37	Australia
8	Sara	30	Iran

Following

	FollowerUserName	FollowedUserName
1	Ali123	DonaldTrump
2	Aliza	Ali123
3	Aliza	DonaldTrump
4	Aliza	ImranKhan
5	Aysha	ImranKhan
6	DonaldTrump	ImranKhan
7	ImranKhan	DonaldTrump
8	Natasha	ImranKhan
9	Samuel	DonaldTrump
10	Samuel	ImranKhan
11	Sara	DonaldTrump

Hashtags

	HashtagID	Hashtag
1	1	#Census
2	2	#ClassiqueMatin
3	3	#MasseCritique
4	4	#piratage
5	5	#DrugMovies

user interests

	UserName	InterestID
1	Ali123	10
2	Ali123	11
3	Ali123	13
4	Ali123	14
5	Aliza	10
6	Aliza	11
7	Aliza	13
8	Aliza	14
9	ImranKhan	10

interests

	InterestID	Description
1	10	Politics
2	11	Sports
3	12	Movies
4	13	Education
5	14	Video Ga...

	TweetID	LikeByUserName	LikeOnDate	likes
1	1	Aliza	2017-02-02	
2	2	Aliza	2017-02-02	

	TweetID	UserName	Text	tweets
1	1	Ali123	Pakistan's largest-ever population #Census start...	
2	2	ImranKhan	Pakistan's largest-ever population #Census start...	
3	3	Sara	Take the soldier who come to our door for #Cens...	
4	4	ImranKhan	Pakistan is going to experience 6th #Census 2017.	
5	5	Sara	Only #census can reveal where this aunty lives	
6	6	ImranKhan	Quand tu te lèves 3h en avance (littéralement) po...	
7	7	Sara	Over 1 million decrypted Gmail and Yahoo accou...	
8	8	Sara	Harry pot-head and the Sorcerer's stoned	
9	9	DonaldT...	LSDespicable Me #DrugMovies	
10	10	ImranKhan	Forrest Bump #DrugMovies @midnight	
11	12	DonaldT...	Quand tu te lèves 3h en avance (littéralement) po...	
12	13	Sara	#DrugMovies	
13	14	DonaldT...	Quand tu te lèves 3h en avance (littéralement) po...	
14	15	Aliza	Quand tu te lèves 3h en avance (littéralement) po...	

Exercise:

1. Give name of the user who has the highest number of followers.
2. Give name of the user who has second highest followers.
3. List names of all the users who have never tweeted.
4. List all the hashtags and usernames and number of times that user used that hashtag.
5. Find the users who have never used the hashtag #Census.
6. List all the usernames that have never been followed.
7. Find the most common interest of users. (The interest with largest number of users). Also find the least common interest.
8. Show total tweets per country. The result should be in order of country name.
9. List names of all the users whose number of tweets is more than average number of tweets per user.
10. Give the name of the users who have at least one follower from Pakistan.