Answers

MOre SQL queries.2.11.20

(markdown converted at https://md2pdf.netlify.com/)

Editor's Database

Name(**id**,name)
Email(**id**,email)
Papers(**narid**, *authorid*, title, year, keywords, decision)
Reviewers(**narid**, *reviewerid*, agree_decline, days, rating, year)

Table names are **bold**. **Primary keys** are bold. *Foreign keys* are shown in *italics* and match the same field in another table unless specified.

Notes:

1. Name and Email share the same id for the same person
2. name is 'last name, first name'
3. note that some ids will have more than one name and/or more than one email
4. authorid is corresponding author (one per paper) and refers to id in both Name and Email tables
5. reviewerid refers to id in both Name and Email tables
6. days is number of days to do review, rating is in {0 (low), 1, 2, 3 (high)}

Questions

1. Find email addresses of all persons whose first name ends in ‘n’ (name, email).
   Again, but last name ends in ‘n’.

```
#names are stored as "last, first"

#first name ending in n
select name, email
from Name join Email using (id)
where name like "%n"

#or

where name regexp "n$"


#last name ending in n
select name, email
from Email join Name using (id)
where name like "%n,%"

#or

select name, email
from Email join Name using (id)
where name regexp "n,"
```

2. Find names of all persons whose email contains ‘gmail’ (name, email). Again, but doesn’t contain ‘gmail’.

```
#email contains 'gmail'
```

```
select name, email
from Name join Email using(id)
where email like "%gmail%"

#or

where email regexp "gmail"


#email doesn't contain gmail
#use 'not'
select name, email
from Name join Email using(id)
where email not regexp "gmail"

#or

where email not like "%gmail%"
```

3. How many unique ids are there in email, in name?

```
#how many distinct ids in the name table
select count(distinct id)
from Name
```

4. List all papers and authors for year 2014 (narid, title, name) is ascending order by narid. Your solution will probably give “duplicate” entries. Why? How can they be eliminated?

```
#papers and correponding authors for 2014
#repeats the same paper if the author has more than one name in the Name table
```

```
select narid, title, name
from Name join Papers on id=authorid
where year = 2014
order by narid asc

#a query that eliminates duplicates in the Names table
select id, min(name)
from Name
group by id
order by id asc

#first query with substitution for Names table with the query that eliminates duplicates
#the query in the parenthesis is called a "derived table" and must be given a name
#here it's called "x"
select narid, title, minname
from Papers join
    (select id, min(name) as minname
     from Name
     group by id
     order by id asc) as x on id=authorid
where year = 2014
order by narid asc
```

5. Find all reviewers on papers that have keywords containing ‘structure’ (narid, title, name, keywords). Sort by narid ascending. Advanced: how might we get the total number of review requests per individual?

```
#papers and reviewers for keyword "structure"
select narid, title, name, agree_decline, keywords
from Reviewers join Papers using(narid) join Name on id=reviewerid
where keywords regexp "structure"
order by narid asc
```