

## Database Project 1 Part 2 NBA Data Visualization & User Platform

Wenbin Xuan wx2253, Angel He ah3354

Postgresql: ah3354

Queries:

1. How many comments on LeBron James have been liked by users?

```
proj1part2=> SELECT COUNT(*)
FROM liked by L
WHERE L.cmid IN (select C.cmid
FROM comment on C
WHERE C.pid = '00323');
count
-----
      5
(1 row)
```

2. Find the names of players who scored more than 20 points in a game and led their team to a win at least once?

```
proj1part2=> select P.pname
proj1part2-> from player plays for coached by P
proj1part2-> where P.pid IN (SELECT P2.pid
proj1part2(> from performance in P2,plays in
P3,player plays for coached by P4
proj1part2(> where P3.gid = P2.gid and P4.tid = P3.tid and P4.pid =
P2.pid and P2.points > 20 and P3.result = 'win');
      pname
-----
Lebron James
James Harden
Anthony Davis
(3 rows)
```

OR

IF WE NEED JOIN.....

```
proj1part2=> select P.pname
proj1part2-> from player plays for coached by P
proj1part2-> where P.pid IN (SELECT P2.pid
proj1part2(> from performance in P2 inner join plays in P3
proj1part2(> on P3.gid = P2.gid
proj1part2(> where P2.points > 20 and P3.result = 'win' and
exists(select* from player plays for coached by P4 where P4.tid = P3.tid
and P4.pid = P2.pid));
      pname
```

```
-----
Lebron James
James Harden
Anthony Davis
(3 rows)
```

3. How much more or less likely do teams in home games win compared to teams in away games, based on the data entered so far?  
 ie. (# home games won / # home games played) - (# away games won / # away games played)

Work in progress:

```
proj1part2=> select ((count(distinct P1.gid)::float / count(distinct
p3.gid)::float)::float - (count(distinct P2.gid)::float / cou
nt(distinct P4.gid)::float)::float)::float
from plays in P1, plays in P3, plays in P2, plays in P4
where ( ((P1.result = 'win' or P1.result = 'Win') and (P1.status =
'home' or P1.status = 'Home')) and (P3.status = 'home' or P3.st
atus = 'Home') and ((P2.result = 'lose' or P2.result = 'Lose') and
(P2.status = 'away' or P2.status = 'Away')) and (P4.status = 'a
way' or P4.status = 'Away')) ;
float8
-----
0
(1 row)
```

Answer should not be 0 but  $0.6 - 0.4 = 0.2$ . We know this works:

```
proj1part2=> select (count(distinct P1.gid)::float / count(distinct
p3.gid)::float)::float
from plays in P1, plays in P3
where ( ((P1.result = 'win' or P1.result = 'Win') and (P1.status =
'home' or P1.status = 'Home')) and (P3.status = 'home' o
r P3.status = 'Home') )
;
float8
-----
0.6
(1 row)
```