

Joining and Grouping Data

50 Points

Answer the questions and provide the SELECT in red below the question. Turn in this document unzipped.

1. Perform an inner join on Players and Managers on PlayerID. Include all fields in Players and all fields in Managers but PlayerID on PlayerID. How many records are there? Look over the data. Change the join to a left join. Look over the data results. How many records are there? What is the difference? Change the join back to an inner join. (3)

Inner Join: 3,404; Left Join: 21,555; The difference is that the inner join statement only returned records from the Players (parent) table that had records matching on playerID in the Managers (child) table.

```
select count *  
  from db_Baseball2015.Players  
 inner join db_Baseball2015.Managers  
  on playerIDpk = playerID
```

2. Save the view as vwPlayerManagers. With an inner join we will get only parents (players) with children (managers) – in other words, only managers. Text the view (2)

```
create view db_Baseball2015.vwPlayerManagers as  
  select *  
  from db_Baseball2015.Players  
 inner join db_Baseball2015.Managers  
  on playerIDpk = playerID
```

3. Develop a SELECT to show each manager's name, team and the number of games they managed that team overall. (5)

```
select nameLast+', '+nameFirst as 'Name',  
       teamID as 'Team',  
       sum(G) as 'Games Managed'  
  from db_Baseball2015.vwPlayerManagers  
 group by teamID, nameLast, nameFirst  
 order by nameLast
```

4. Provide the manager name, total wins and total losses for only managers with an overall winning record (total wins > total losses) (4)

```
select nameLast+', '+nameFirst as 'Name',  
       sum(W) as 'Wins',  
       sum(L) as 'Losses'
```

```

from db_Baseball2015.vwPlayerManagers
group by nameLast, nameFirst
having sum(w)>sum(L)
order by nameLast

```

5. In a single SELECT, which manager has the greatest number of wins? (4)

```

select top(1) nameLast+', '+nameFirst as 'Name',
sum(W) as 'Wins'
from db_Baseball2015.vwPlayerManagers
group by nameLast, nameFirst
order by sum(w) desc

```

6. Write a SELECT to compare Wins of players that were also manager versus those that were never managers (you can use either the plyMgr or bPlyMger fields). Does player experience seem to matter once you become a manager? (5)

```

select avg(W) as 'Wins',
plyrMgr as 'PlayerManager'
from db_Baseball2015.vwPlayerManagers
group by plyrMgr

```

It would seem that player experience doesn't matter, given that the average wins for player managers is 50 and for the non player managers is 64.

7. Who managed a single team the most seasons? Provide a single SELECT to demonstrate. (3)

```

select top(1) nameLast+', '+nameFirst as 'Manager',
count(yearID) as 'Seasons Managed',
teamID as 'Team Managed'
from db_Baseball2015.vwPlayerManagers
group by nameLast, nameFirst, teamID
order by count(yearID) desc

```

Connie Mack managed Philadelphia Athletics for 50 seasons.

8. Who managed overall the most? Provide a single SELECT to demonstrate. (3)

```

select nameLast+', '+nameFirst as 'Manager',
count(yearID) as 'Seasons Managed'
from db_Baseball2015.vwPlayerManagers
group by nameLast, nameFirst
order by count(yearID) desc

```

Connie Mack managed a total of 53 seasons.

9. Which team had the most managers? (3)

```
select teamID as 'Team',
       count(distinct(playerID)) as 'Total Managers'
from db_Baseball2015.vwPlayerManagers
group by teamID
order by count(PlayerID) desc
```

The Chicago Cubs have had 60 managers

10. Who was the shortest manager? (3)

```
select distinct nameLast+', '+nameFirst as 'Manager',
               height
from db_Baseball2015.vwPlayerManagers
where height is not null
order by height
```

Dickey Pearce is the shortest player at 63 in.

11. How many managers were foreign born? (3)

```
select count(birthCountry)
from db_Baseball2015.vwPlayerManagers
where birthCountry <> 'usa'
```

203 managers were foreign born

12. Inner Join Players to Batting. Create a view vwPlayerBatting. (3)

```
create view db_Baseball2015.vwPlayerBatting as
select * from db_Baseball2015.Players
inner join db_Baseball2015.Batting
on playerIDpk = playerID
```

13. Who hit the most home runs in history (single SELECT statement) (3)

```
select sum(HR) as 'Total Homeruns',
       playerIDpk
from db_Baseball2015.vwPlayerBatting
group by playerIDpk
order by sum(HR) desc
```

Barry Bonds hit a total of 762 homeruns

14. Provide a SELECT listing the most consistent home run hitters (average) that played (having) in at least 20 games in a season. (3)

```
select playerIDpk,  
       avg(HR) as 'Average Homeruns',  
       G as 'Games Played in Season'  
from db_Baseball2015.vwPlayerBatting  
group by playerIDpk, G  
having G >= 20  
order by avg(HR) desc
```

15. Who had the most triples (B3) in history (single SELECT statement). (3)

```
select playerIDpk,  
       nameFirst+' '+nameLast,  
       sum(B3) as 'Triples'  
from db_Baseball2015.vwPlayerBatting  
group by playerIDpk, nameFirst, nameLast  
order by SUM(B3) desc
```

Sam Crawford with 309 Triples