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**