GROUPING PROJECT
25 Points

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Read instructions carefully. Failure to do so will likely cost you points.

Create SELECT statements to produce the described data. <u>All columns must have meaningful column headers</u>. Turn in all SQL statement(s) needed to solve the problem – not the data itself. Paste your answers below the problem in red and <u>turn in only this answer page</u>. I HIGHLY recommend you make sure you have answered all aspects of a problem before submission.   I also suggest you create views to simplify your work. Do this assignment from your college DB. I if you use views I will look them over.   I also will expect you to be able to decide which tables to join/use (know your data). If you have not already, copy the data into your database. You cannot create views outside your database. Use the BaseBall2013 data. Also, make sure you run your statements before you turn them in. If you need assistance, see me. (3 points each)

1. Total lifetime batting history (all batting table data) for all players returned in player name order (hint: simple SELECT from view).
    <pre style="color:red">select * from db_Baseball2015.vwPlayersBatting order by nameLast,
    nameFirst</pre>

2. Hall of fame homerun hitters that hit 500 or more homeruns in their life. Include their name and number of home runs. Because there might be duplicate names, I suggest you group by *playerID* and name.
    <pre style="color:red">select playerIDpk,
        nameFirst+' '+nameLast as 'Name',
        sum(HR) as 'Total Homeruns'
        from db_Baseball2015.vwPlayersBatting
        inner join (select distinct playerID
            from db_Baseball2015.HallOfFame)
        as hof
        on playerIDpk = hof.playerID
        group by playerIDpk, nameFirst+' '+nameLast
        having sum(HR) > 500
        order by sum(HR) desc</pre>

3. As long as we are at it (previous question), how many and which players have the same first and last names?   For example:

    Dave Jones   5

    You will need only the Players table. Exclude unique names – include only those with 2 or more matches (*Having*)
    <pre style="color:red">select nameLast,
        nameFirst,
        count(nameFirst + ' ' + nameLast) as 'Similar Names'
        from db_Baseball2015.Players
        group by nameFirst, nameLast
        having count(nameFirst + nameLast) > 1
        order by 'Similar Names' desc, nameLast, nameFirst</pre>

4. The average player weight and height by teams during the year 1987.

```
       Team          Avg Weight in 1987
select teamID 'Team',
       avg(weight) as 'Average Weight',
       avg(height) as 'Average Height',
       yearID 'Year'
       from db_Baseball2015.vwPlayersBatting
       group by teamID, yearID
       having yearID=1987
       order by teamID
```

5. What are the top 5 Teams with the greatest average weight (display the team and weight). TOP is acceptable here.

```
select top(5) teamID 'Team',
       avg(weight) as 'Average Weight'
       from db_Baseball2015.vwPlayersBatting
       group by teamID
       order by avg(weight) desc
```

6. Compare the average weight and height of the Mariners (SEA) for each year they played. Include the year, average weight and average height in year order.

```
select teamID 'Team',
       yearID 'Year',
       avg(weight) as 'Average Weight',
       avg(height) as 'Average Height'
       from db_Baseball2015.vwPlayersBatting
       group by teamID, yearID
       having teamID = 'SEA'
       order by yearID
```

7. Compare the total homeruns hit by year for all teams in team then year order

```
       Year          Total Homeruns
select teamID 'Team',
       yearID 'Year',
       sum(HR) as 'Total Homeruns'
       from db_Baseball2015.vwPlayersBatting
       group by teamID, yearID
       order by teamID, yearID
```

8. Which (if any) current batters (no finale) that weigh less than 180 pounds, hit more than 20 home runs in any given year. Return the name and number of home runs ordered by the most homeruns to the least.

```
select nameFirst+' '+nameLast as 'Name',
       HR 'Homeruns',
       weight,
       yearID 'Year',
       finalGameDate 'Finale'
       from db_Baseball2015.vwPlayersBatting
       where finalGameDate = '2015-10-04 00:00:00'
       and weight < 180
       and HR > 20
       order by HR desc
```