CIS 251
Assignment 5 GROUP BY, HAVING and ORDER BY

Student Name __ **Bill Seling** _____

Create the following SQL SELECT statements. If you have added, deleted or changed records within your studies, you will need to create clean database. You will need to drop tennis and reconstruct it from the original instructions in chapter 3 and 4.

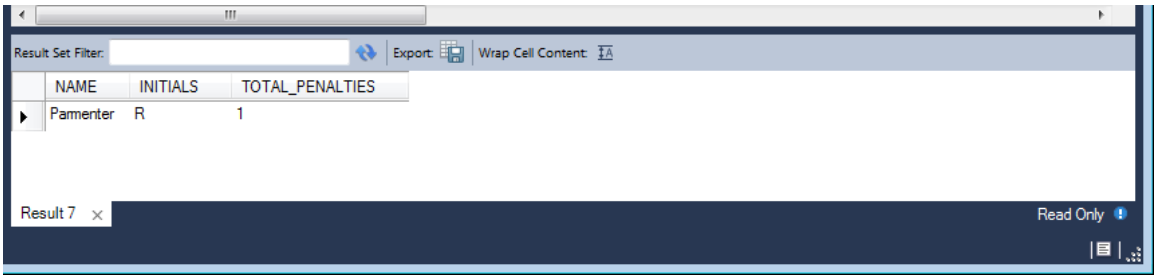
While many of these statements might be able to be created without GROUP BY, HAVING, or ORDER BY, this assessment is specifically for these clauses in SQL. You may need to stretch your thinking a little, but be sure that each statement under the GROUP BY header, has a GROUP BY clause; likewise with the HAVING and ORDER by requests.

- Once you have completed each statement, paste the SQL statements into this document along with a screen capture of your results screen. Remember that your statements include the GROUP BY, HAVING and ORDER BY clauses

  - **GROUP BY**

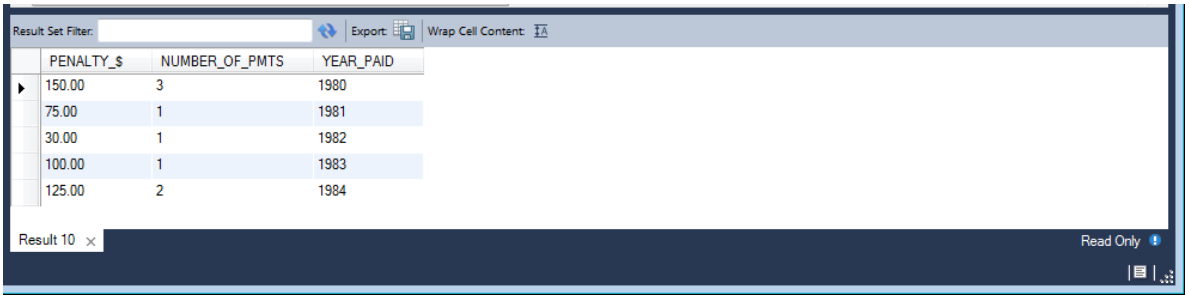
    1. Find the player name and initials as player, the total number of penalties they have incurred for those players living in Stratford.

```
SELECT   PLA.NAME, PLA.INITIALS, COUNT(*) AS TOTAL_PENALTIES
FROM     PLAYERS AS PLA INNER JOIN PENALTIES AS PEN
         ON PLA.PLAYERNO = PEN.PLAYERNO
WHERE    PLA.TOWN = 'Stratford'
GROUP BY PLA.NAME, PLA.INITIALS, PLA.PLAYERNO;
```



    2. Find the sum of the penalty amounts, the number of payments and group them by the year that the payment was made.

```
SELECT sum(AMOUNT) AS PENALTY_$,
       count(*) AS NUMBER_OF_PMTS,
       year(PAYMENT_DATE) AS YEAR_PAID
FROM   penalties
GROUP BY YEAR_PAID;
```

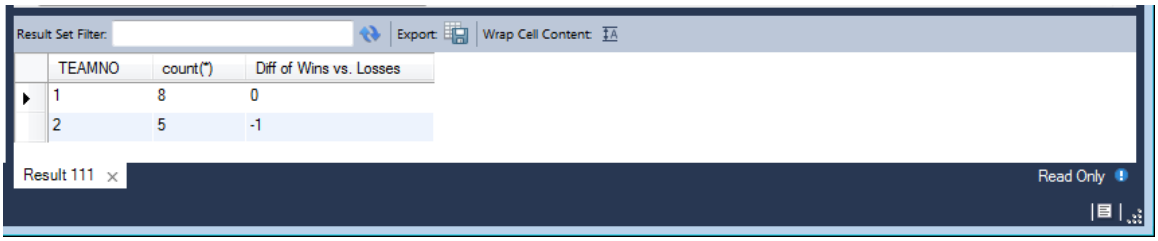


CIS 251
Assignment 5 GROUP BY, HAVING and ORDER BY

3. Find the team number and the number of matches where the number of matches won is more than the number matches lost.

   There are no teams who whose number of matches won is more than the number of matches lost. Team Number 1 comes the closest, breaking even on 4 match wins and 4 match losses. Team 2 had 3 match losses and 2 match wins.

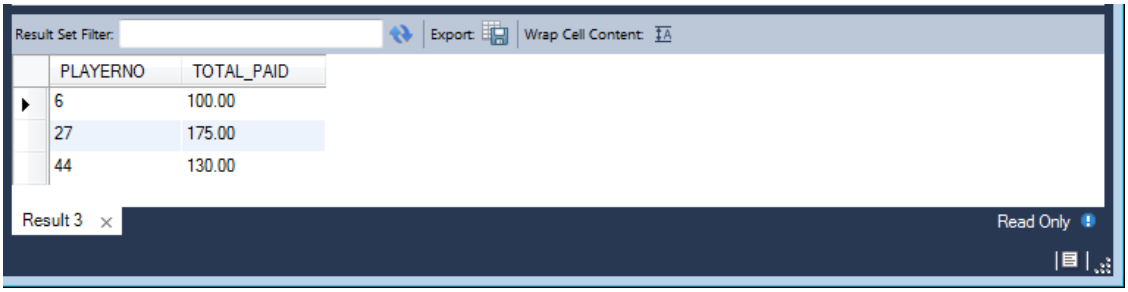
```
/*
ASSUMPTIONS: Assuming you really wanted to know about the team
whose number of matches won won is more than the number of
matches lost and not the number of sets won vs. sets lost.
*/
SELECT        TEAMNO, count(*),
              sum(CASE
              WHEN (WON > LOST) THEN 1
              ELSE ''
              END)  -
              sum(CASE
              WHEN (WON < LOST) THEN 1
              ELSE ''
              END) AS 'Diff of Wins vs. Losses'
FROM matches
GROUP BY teamno
ORDER BY 2 DESC;
```



CIS 251
Assignment 5 GROUP BY, HAVING and ORDER BY

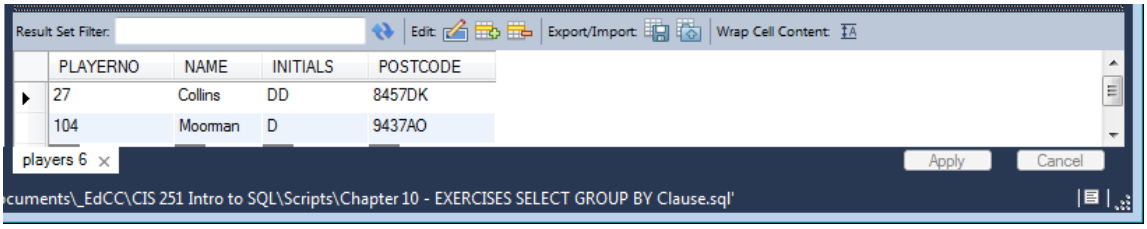
- **HAVING**
  4. Find the player number and the sum of the amounts paid for penalties as total paid where the sum of the amounts is greater than 50.

```
SELECT   PLAYERNO, SUM(AMOUNT) AS TOTAL_PAID
FROM     penalties
GROUP BY PLAYERNO
HAVING   SUM(AMOUNT) > 50;
```



- **ORDER BY**
  5. List all the players by name and initials from Eltham and sort them by postcode.

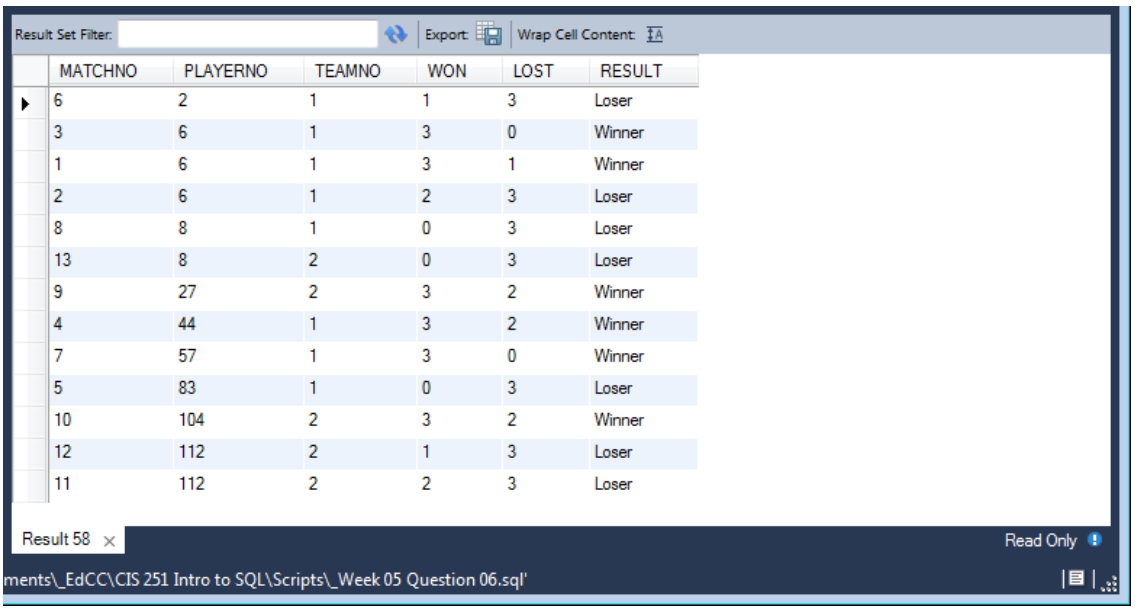
```
/*
ASSUMPTIONS: Ascending sort; display postcode.
*/
SELECT   PLAYERNO, NAME, INITIALS, POSTCODE
FROM     players
WHERE TOWN = "Eltham"
ORDER BY POSTCODE;
```



CIS 251
Assignment 5 GROUP BY, HAVING and ORDER BY

6. List all the information available from the matches played ordered by the player no in descending order, the number of matches won and the number of matches lost

```
/*
ASSUMPTIONS: Assuming you wanted to know winners and losers of matches; added
info on sets won and lost because all info from matches played was specified.
*/
SELECT MATCHNO, PLAYERNO, TEAMNO, WON, LOST, CASE
                                                WHEN (WON > LOST) THEN 'Winner'
                                                ELSE 'Loser'
                                                END AS RESULT
FROM MATCHES
WHERE WON > LOST
UNION
SELECT MATCHNO, PLAYERNO, TEAMNO, WON, LOST, CASE
                                                WHEN (WON > LOST) THEN 'Winner'
                                                ELSE 'Loser'
                                                END AS RESULT
FROM MATCHES
WHERE WON < LOST
ORDER BY 2 ASC, 6 DESC, 4, 5;
```



Result Set Filter: Export: Wrap Cell Content:

MATCHNO	PLAYERNO	TEAMNO	WON	LOST	RESULT
6	2	1	1	3	Loser
3	6	1	3	0	Winner
1	6	1	3	1	Winner
2	6	1	2	3	Loser
8	8	1	0	3	Loser
13	8	2	0	3	Loser
9	27	2	3	2	Winner
4	44	1	3	2	Winner
7	57	1	3	0	Winner
5	83	1	0	3	Loser
10	104	2	3	2	Winner
12	112	2	1	3	Loser
11	112	2	2	3	Loser

Result 58 Read Only

ments_EdCC\CIS 251 Intro to SQL\Scripts_Week 05 Question 06.sql'

Turn in:

- You should turn in **this** Word document with your 6 SQL select statements, and the screen captures.

Where to turn it in:

- Return to Blackboard and turn this in via the link below.