CS 260 - Database Systems

Lab 3

This lab will address SQL SELECT statements as well as usage of Oracle SQL Developer and MySQL Workbench. You will use the same MLB database as in lab1.

Please produce two script files (similar to those provided for creating the database), one from Oracle SQL Developer and the other from MySQL Workbench, with the following requirements:

- The file name contains either “Oracle” or “MySQL” and ends in a .sql extension
- The file contains a semicolon (;) after each SQL statement
- The file contains a line comment including the answer number before each answer, as in:

```
/* 1 */
SELECT *
FROM MLB_TEAM;
```

These script files can be saved directly from the worksheets in Oracle SQL Developer and MySQL Workbench. They should run all queries in the assignment when executed.

Provide the following SQL queries. Unless specified you may use nested queries, joins, or a combo.

1. List the last name of all players that have more than 45 doubles. Do this with a join and no nested queries.

2. Repeat the question in #1 but with nested queries and no joins.

3. Repeat the question in #1 but display the number of doubles alongside their last name.

4. List the name of the team and number of wins of all teams that had more wins than the average team had. Order results by de

5. Find the player first name, last name, and number of players the pitcher has hit by a pitch for the pitcher that has hit the most players by a pitch.

6. Find the manager first and last name, height, and team name of the shortest manager.

7. Find the top 10 (highest) “strike outs per walk” statistic for all pitches with at least 1 walk that played in at least 25 games. You should display their first name, last name, and K/BB statistic. K/BB is computed by dividing the number of strike outs by the number of walks (“base on balls”). You will need to use “rownum” in Oracle and “limit” in MySQL (not talked about in class or notes – you will have to search how to do it).

8. List the team id of every team that had at least one player that hit more than 35 homeruns or stole more than 40 bases. Do this with UNION.

9. List the player ids of all pitchers that hit more than 10 homeruns. In Oracle I would like you to do this with an INTERSECT and no nested queries. MySQL does not have INTERSECT, so in MySQL you will write it with nested queries instead.

10. Create a View called mlb_national that consists only of the teams from the national league (NL).