CS 260 - Database Systems

Lab 2

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. Each answer should consist of a single query (do not use nested queries for lab2).

1. List the first name, last name, and number of shut outs for all pitchers with at least 1 shut out. Display the results in order of most to least shut outs then ascending by last name.

2. List the first and last names of all players with the last name “Smith” as well as their “total bases”. Total bases can be computed by summing the following equations: number of home runs * 4, number of triples * 3, number of doubles * 2, number of singles. For our dataset, the number of singles can be computed by subtracting the number of doubles, triples, and home runs from the number of hits.

3. List the team name, manager first name, and manager last name for all managers who manage teams in the NL Central (‘NL’ league and ‘C’ division).

4. List the number of pitchers who throw right handed and left handed (order doesn’t matter).

5. List the team name and average team pitcher weight for all teams. Display the results in decreasing order of weight.

6. List all manager’s first and last name, height, and team name of those managers that are shorter than 70 inches.

7. List the player id, first and last names, and total number of innings pitched (outs_pitched / 3) for all pitchers that pitched for multiple teams last year. A pitcher’s # of innings pitched

should be summed for all teams he played for. Sort the results in descending order by innings pitched.

8. Find the full name (combination of first name, space, and last name using an alias) and number of wild pitches for all pitchers least 13 wild pitches and at least 500 outs pitched.

9. List the last names, batting average (hits / at_bats), and innings pitched (outs_pitched / 3) of all players who have a last name starting with Z.