# Chapter 3 SQL Assignment – Part 1

**Please submit all answers in a single a .sql file**

The following are the queries that are to be written using the BaseBall database you created for the course. Each question is worth 5 points. Partial points will be taken off for incorrect formatting (dollar amounts should be in $xxx,xxx.00 format, percentages in XX.XX%, etc…). Each of the questions states what the query should do and provides a limited sample of the results set you should get from your query. Note that due to differences in the data within the database over time, your result numbers may not exactly match the examples.

The questions follow the Chapter 3 PowerPoint in terms of the SQL commands used. The PowerPoint can be used as a guide. For some of the formatting or other requirements you may need to use Google for assistance. Using **TSQL** (this is the nickname for Microsoft’s SQL dialect) and the words for what you are trying to do often works. Adding the word **EXAMPLE** will find solutions that include examples of the SQL. Results from **StackOverflow** and **Microsoft** often give the best information.

1. Using the Salaries table, select playerid, yearid and salary. Remember to format the salary using the format command.

**yearid playerid salary**

1985 barkele01 $870,000.00

1985 bedrost01 $550,000.00

1985 benedbr01 $545,000.00

1. Modify the query in #1 so it also shows a monthly salary (salary divided by 12). Rename the derived column Monthly Salary

**yearid playerid Salary Monthly Salary**

1985 barkele01 $870,000.00 $72,500.00

1985 bedrost01 $550,000.00 $45,833.00

1985 benedbr01 $545,000.00 $45,416.00

1. Provide a list of the teamids in the Salaries tables listing each team once.

**teamid**

HOU

MIA

FLO

1. Select the Teamid, PlayerID and Salary from the Salaries table for all players with salaries over $1 million dollars.

**Teamid yearid playerid Salary**

ATL 1985 hornebo01 $1,500,000.00

ATL 1985 murphda05 $1,625,000.00

ATL 1985 suttebr01 $1,354,167.00

1. Modify the query for #4 to show the same information for players on the New York Yankees. Hint: Use teamid NYA in your where statement

**Teamid yearid playerid Salary**

NYA 2016 ackledu01 $3,200,000.00

NYA 2016 beltrca01 $15,000,000.00

NYA 2016 castrst01 $7,857,142.00

1. Modify the query in #4 to show the players first and last name in addition to the information already shown. You will need to use the Master and Salaries tables with the correct join.

**Teamid yearid playerid nameFirst nameLast Salary**

SEA 2010 aardsda01 David Aardsma $2,750,000.00

SEA 2011 aardsda01 David Aardsma $4,500,000.00

OAK 2015 abadfe01 Fernando Abad $1,087,500.00

1. Modify the query for #4 again, but this time show the FranchName from the teamsFranchise table instead of the teamid. For this query, you must use the Master, Salaries, Teams and TeamsFranchises with the appropriate joins

**FranchName yearid playerid Salary**

Atlanta Braves 1985 hornebo01 $1,500,000.00

Atlanta Braves 1985 murphda05 $1,625,000.00

Atlanta Braves 1985 suttebr01 $1,354,167.00

1. Using the MASTER table. List the first, last and given name for all players that use their initials as their first name (Hint: nameFirst contains at least 1 period(.) Also, concatenate the nameGiven, nameFirst and nameLast into a single column called Full Name putting the nameFirst in parenthesis. For example: James (Jim) Markulic

**NOTE:** SQL server uses different symbols for concatenation than the one shown in the text

**nameFirst nameLast nameGiven Full Name**

A. J. Achter Adam Joseph Adam Joseph ( A. J. ) Achter

R. J. Alvarez Roy Emilio Roy Emilio ( R. J. ) Alvarez

J. P. Arencibia Jonathan Paul Jonathan Paul ( J. P. ) Arencibia

1. Modify the query in #8 by adding the Salaries table and only show players who’s name does not contain a period (.) ad who played in 2000 and had a salary between $400,000 and $500,000. The salary in your results must be properly formatted showing dollars and cents. The results must also be sorted by Salary and then Last Name. You must use a BETWEEN clause in you with statement.

**nameFirst nameLast nameGiven Full Name Salary**

Hector Ambriz Hector Hector ( Hector ) Ambriz $400,000.00

Yorman Bazardo Yorman Michael Yorman Michael ( Yorman ) Bazardo $400,000.00

Jason Berken Jason Thomas Jason Thomas ( Jason ) Berken $400,000.00

1. Using the appropriate Set Operator (slide 32) and the MASTER and APPEARANCES tables, list the player, full name (as shown in #8 & 9) and the teamid of players who were in the appearances table for 2000 but not for 2001**. HINT:** You need to create 2 separate queries (one to select the data for each year, and use the SET Operator to combine the data to get the correct results. You can also refer to the Relational Algebra Chapter for additional information regarding how the set operators work.

**playerid Full Name teamID**

abbotje01 Jeffrey William (Jeff) Abbott CHA

abbotku01 Kurt Thomas (Kurt) Abbott NYN

aceveju01 Juan Carlos (Juan) Acevedo MIL

1. Modify the query in #10 to use the appropriate Set Operator to show players who are in the appearances table for 2000 and 2001

**playerid Full Name teamID**

abbotpa01 Paul David (Paul) Abbott SEA

abreubo01 Bob Kelly (Bobby) Abreu PHI

adamste01 Terry Wayne (Terry) Adams LAN

1. Write one query to calculate the averages salary in the Salaries table using the formula Average Salary = sum(salaries)/count(playerid) and a second query using the average aggregate function. Explain the difference in the results.

**Avg\_Using\_Divide Aggregrate\_Average**

$2,043,114.27 $2,085,634.05

1. Using the Salaries table and the appropriate aggregate function, calculate the average salary by teamid sorted by teamid

**teamid Average\_Salary**

ANA $1,895,109.20

ARI $2,521,796.46

ATL $2,211,176.31

1. Using the Salaries table and the appropriate aggregate function, calculate the average salary by lgid and teamid sorted by lgid and teamid

**lgid teamid Average\_Salary**

AL ANA $1,895,109.20

AL ARI $4,875,000.00

AL BAL $2,028,838.65

1. Using the Salaries table and the appropriate aggregate function, calculatethe average salary by lgid and teamid sorted by lgid and teamid for 2015

**lgid teamid Average\_Salary**

AL ARI $4,875,000.00

AL BAL $4,108,744.04

AL BOS $5,659,481.25