**Week 2-Practice Quizzes-24.08.2021**

1. Find the distinct values for the extended step. The code has been started for you, but you will need to program the third line yourself before running the query.

SELECT

distinct Extended\_step

from salary\_range\_by\_job\_classification

1. Excluding $0.00, what is the minimum bi-weekly high rate of pay (please include the dollar sign and decimal point in your answer)? The code has been started for you, but you will need to add onto the last line of code to get the correct answer.

Select

min(Biweekly\_high\_Rate)

From salary\_range\_by\_job\_classification

where biweekly\_high\_rate <> '$0.00'

1. What is the maximum biweekly high rate of pay (please include the dollar sign and decimal point in your answer)? The code has been started for you, but you will need to add onto the last line of code to get the correct answer.

SELECT

Max (Biweekly\_high\_Rate)

FROM salary\_range\_by\_job\_classification

1. What is the pay type for all the job codes that start with '03'? The code has been started for you, but you will need to program the fourth and fifth lines yourself before running the query.

Select

job\_code,

pay\_type

from salary\_range\_by\_job\_classification

where job\_code LIKE '03%'

1. Question 6

Run a query to find the Effective Date (eff\_date) or Salary End Date (sal\_end\_date) for grade Q90H0? The code has been started for you, but you will need to program the third through the sixth lines yourself before running the query.

Select

grade,

eff\_date,

sal\_end\_date

from salary\_range\_by\_job\_classification

where grade = 'Q90H0'

1. Sort the Biweekly low rate in ascending order. There is no starter code, as you need to write and run the query on your own. Hint: there are 4 lines to run this query.

Select

biweekly\_low\_rate

From salary\_range\_by\_job\_classification

order by biweekly\_low\_rate asc

1. Write and run a query, with no starter code to answer this question: **What Step are Job Codes 0110-0400?** Hint: there are 6 lines to run this query.

SELECT

Job\_Code,

Salary\_setID,

Step

FROM salary\_range\_by\_job\_classification

where Job\_Code between "0110" and "0400"

1. Write and run a query, with no starter code or hints to answer this question: **What is the Biweekly High Rate minus the Biweekly Low Rate for job Code 0170?**

Select

Job\_code,

Biweekly\_high\_rate,

Biweekly\_low\_rate,

(biweekly\_high\_rate - Biweekly\_low\_rate) as calc

From salary\_range\_by\_job\_classification

Where Job\_code = '0170'

1. Write and run a query, with no starter code or hints to answer this question: **What is the Extended Step for Pay Types M, H, and D?**

select Extended\_Step,

Pay\_Type

from salary\_range\_by\_job\_classification

where Pay\_Type in ('M', 'H', 'D')

1. Write and run a query, with no starter code or hints to answer this question: **What is the step for Union Code 990 and a Set ID of SFMTA or COMMN?**

SELECT

Union\_code,

SetID,

Step

from salary\_range\_by\_job\_classification

where Union\_code = 990 and (SetID = 'SFMTA' or SetID = 'COMMN')

---

**SQL for Various Data Science Languages**

In this class we’ve gone over relational databases and how SQL is used to retrieve data from them. However, because of the popularity and versatility of SQL, SQL is also used for many big data applications. Below are a few resources for how SQL is used with common big data and data science languages.

**SQL for R**

* [SQLDF Package](https://cran.r-project.org/web/packages/sqldf/index.html)
* [Documentation](https://cran.r-project.org/web/packages/sqldf/sqldf.pdf)
* [Examples](https://www.r-bloggers.com/manipulating-data-frames-using-sqldf-a-brief-overview/)

**SQL for Spark**

* [Overview](https://spark.apache.org/docs/latest/sql-programming-guide.html#overview)
* [Documentation](https://spark.apache.org/docs/latest/sql-programming-guide.html)

**SQL with Hadoop**

* [Hive Overview](https://hive.apache.org)
* [Documentation](https://cwiki.apache.org/confluence/display/Hive/LanguageManual)

**SQL for Python**

* [Python-SQL Package Documentation](https://pypi.python.org/pypi/python-sql)