For this week’s discussion board assignment select two aggregate functions and answer the following questions:

1. **What are they?** When talking about database management an aggregate function is when the values of multiple rows are all grouped as input on certain criteria to form a single value with more significant meaning. (GeeksforGeeks.)
2. **Why are they important?** They are important because it supports queries that use grouping and aggregation of data set. This can be very helpful to several applications. (GeeksforGeeks.)
3. **How are they used?** They can be used to develop custom reports, visual charts, and data analysis as well as several other things. (GeeksforGeeks.)
4. Provide an example, in code, of their usage.

**db.users.count() –** This method returns the count of documents that match a find() query for a collection or view. However, it does not preform the find() method it only counts and returns the number of results that match the query. (MongoDB b.)

**db.students.aggregate** – Returns the average value of the numeric values. $avg ignores non-numeric values. (MongoDB a.)

db.students.aggregate([

{ $project: { quizAvg: { $avg: "$quizzes"}, labAvg: { $avg: "$labs" }, examAvg: { $avg: [ "$final", "$midterm" ] } } }

])

results

{ "\_id" : 1, "quizAvg" : 7.666666666666667, "labAvg" : 6.5, "examAvg" : 77.5 }

{ "\_id" : 2, "quizAvg" : 9.5, "labAvg" : 8, "examAvg" : 87.5 }

{ "\_id" : 3, "quizAvg" : 4.666666666666667, "labAvg" : 5.5, "examAvg" : 74 }

Bibliography

GeeksforGeeks. (2019, August 20). Aggregate functions in SQL. Retrieved August 16, 2020, from <https://www.geeksforgeeks.org/aggregate-functions-in-sql/>

MongoDB a. (2020). $avg (aggregation)¶. Retrieved August 16, 2020, from <https://docs.mongodb.com/manual/reference/operator/aggregation/avg/>

MongoDB b. (2020). Db.collection.count()¶. Retrieved August 16, 2020, from https://docs.mongodb.com/manual/reference/method/db.collection.count/