

Point: 10 (each question is 1 point)

Part 1 (Listen to the posted Video lecture on Nested/Hash Join and answer following questions):

1. What is the time complexity of nested join algorithm?
 - (a) $O(m+n)$
 - (b) $O(m*n)$
 - (c) $O(m)$

*m and n are number of rows of tables being joined.
2. If we use hash join algorithm to join takes and section tables, then which table should be used to build hash table?
 - (a) takes and section (both)
 - (b) either of them (takes or section)
 - (c) pick a table with fewer number of rows to build hash table

Part 2: SQL questions

The following queries are based on the campaign data (campaign-ca-2016.sql)

3. how many contributions are contained in the data?
4. show the min and maximum amounts of all contributions?
5. list the (distinct) ids and names of all the candidates in the data. order by name?
6. show the candidate name and number of contributions, for each candidate? order by number of contributions in descending order?
7. show the candidate name and average contribution amount for each candidate, looking at positive contributions only? Order by average amount in descending order?
8. show the candidate name and the total amount received by each candidate. Order the output by total amount received.

9. how do you set the SQL output so that it no longer goes to a file?

Part 3: Use the courses data (read the files [courses-ddl.sql](#) and [courses-small.sql](#)).

10. write an SQL query that gives the number of courses taken for every student in the student table?