

ICS 424 - Homework # 2

A. Answer all of the following exercises from your database text book.

1. 15.1
2. 15.6
3. 15.18 (Optional)
4. Draw the initial query tree for Query Q2 of Chapter 8 (page 220 and 221), then show how the query tree is optimized.

B. Answer all of the following Oracle SQL questions

5. Create and populate the three tables in Query Q2 and check how Q2 will be executed by Oracle. Will Oracle use the same execution plan as the one you came up with in Question 4?
6. Write an SQL statement to generate the statistics of all the tables you created.
7. Show how Oracle will execute Query 2 after the table statistics are generated.
8. Show how Oracle will execute a SELECT statement based on column that has no index.
9. Create a secondary index based on the column of Question 8 and show how Oracle will execute the SELECT statement of Question 8.
10. Write an SQL statement to generate the statistics of the column in Question 8, and then show Oracle execution plan of the SELECT statement of Question 9.
11. Write an Oracle SQL which outputs the size of memory given for each user for sorting.

Be familiar with the following views (which are part of Oracle dictionary) to answer some of the above questions.

- Db_views or all_views
- User_tables
- User_tablespaces
- User_segments
- User_indexes
- User_tab_columns
- User_users
- V\$parameter
- V\$datafile
- V\$logfile
- V\$session
- V\$bh
- V\$SGA