

Miscellaneous

CS 325 - Fall 2024

Last modified

December 10, 2024

Group members

Julia Calkins

McKenna Kindle

Kiko Barr

Our group put in a huge amount of effort to deliver a realistic scenario with complex and advanced queries that go above and beyond.

Realistic and Well Researched Scenario

- Julia Calkin's dad owns a cafe so we asked him questions about what he has in inventory and what information about pastries and drinks he has in the cafe's database, which directly led us to develop a realistic variety of options and record important allergen and food restriction information.
- We researched real-life cat cafes by reading [this review of five cat cafes in the SF Bay Area](#) and the website for this [adoption-focused cat cafe](#). Through research we realized that it is a common model in the U.S. to have cat cafes that are operated as non-profits and which focus on education as well as adoption. This influenced us to change our cat cafe to a non-profit which included fundraiser and education events.

Inventory of Advanced SQL Queries and Reports

Commands	Used in	Total used
Concatenation	Query 1, 16, 21, 22 Report 6	5
Distinct	Query 25 Report 2	2
substr()	Query 1, 7	2
Computation	Query 1, 2	2
Compute	Report 2	1
Order By	Query 1, 2, 3, 4, 5, 7, 8, 11, 13, 14, 15, 16, 17, 24, 26 Report 1, 2, 3	18

Group By	Query 2, 3, 7, 13, 14, 16, 17, 24, 26 Report 1, 3	11
Having	Query 9	1
Join with 2 tables	Query 1, 2, 4, 7, 8, 11, 13, 14, 17, 21, 25 Report 2	12
Join with 3+ tables	Query 15, 20, 23 Report 2, 6	5
Compound WHERE	Query 3, 8, 12	3
Aggregate functions	Query 2, 3, 9, 13, 14, 16, 17, 24, 26 Report 3, 5	11
Column	Query 3, 11, 13, 14, 26 Report 1, 2, 3, 5, 6	10
Nested Selects	Query 3, 7, 9, 15, 22 Report 2, 6	7
Set theoretic (union, minus)	Query 4, 8, 11, 14 Report 2	5
CTE / With statement	Query 5 Report 2	2
Case statements	Query 5, Report 2, 5	3
Exists / Not Exists	Query 3, 5, 8, 12	4
Dynamic Input with '&'	Query 5, 22	2
Word Wrapped	Query 14	1
Views	Query 6, 8, 14, 20 Report 2, 6	6
Break	Query 8, 21 Report 2, 6	4
Like	Query 12	1
%	Query 12	1

Fetch	Query 14	1
Rownum	Query 15	1
Trigger	Query 18, 19	2
Coalesce	Query 20	1
To_Char()	Query 24	1
To_date()	Report 2	1

Other Advanced SQL Queries and Reports

- There are many instances where advanced queries are combined:
 - Queries 4, 8, and 11 which use set theoretic operations containing joins
 - Query 5 uses a CTE with dynamic input
 - Query 9 uses HAVING with nested select
- Additionally, we went out of our way to learn new commands that were not taught in class because they were useful in answering a business question like Query 20 which uses LEFT JOIN.