SQL

1. What are the different types of statements in SQL?
   1. DDL - create, drop, alter etc.
   2. DML - insert, update, delete etc.
   3. DQL - select etc.
   4. DCL
   5. TCL
   6. https://www.javatpoint.com/dbms-sql-command
2. What are different types of constraints in SQL?
   1. https://www.w3schools.com/sql/sql\_constraints.asp
3. What is the order of execution in a SELECT statement?
   1. https://www.almabetter.com/bytes/tutorials/sql/sql-order-of-execution
4. What are the kind of joins you can make in SQL?
   1. cross
   2. inner
   3. left
   4. right
   5. full outer
   6. self
5. What are different types of aggregations in SQL?
   1. simple - sum, min, max, count etc.
   2. grouping - string\_agg, sum, max, min etc.
6. What are some important system defined functions in SQL?
   1. string - upper, lower, trim, concat etc.
   2. numeric - sum, count, abs, etc.
   3. date - datepart, dateadd, datediff etc.
   4. advanced - cast, isnull etc.
   5. https://www.w3schools.com/sql/sql\_ref\_sqlserver.asp
7. What are window functions in SQL?
8. What are the different ranking functions? Explain each one of them using examples.
9. What is the output of below question
   1. ‘east’, 150 (the agg function will ignore nulls and it will calculate (100+200)/2)

region, sales

‘east’, 100

‘east’, null

‘east’, 200

select region, avg(sales) as avg\_sales

from

tab

group by region

1. What is the output of below question
   1. 10, 8, 10

a table has total 10 rows, state column has 2 nulls

count(1), count(state), count(\*)

1. What is the output of below question
   1. no result

select \* from tab where null=null;

1. What is the output of below question
   1. for first query, it will either return an empty set or error. for second query it will return the 2nd record.

customer\_id, age

1, 15

2, null

3, 26

4, 50

select \* from tab where age = null;

select \* from tab where age is null;

1. Write query to find - employees whose salary is more than their manager
   1. select <req\_columns> from employee e1 inner join employee e2 on e1.manager\_id = e2.emp\_id where e1.salary > e2.salary;

emp\_id, dept, salary, manager\_id

1, ‘hr’, 3000, 4

2, ‘finance’, 5000, 3

3, ‘finance’, 2000, 1

4, ‘IT’, 5000, 7

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