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Python

Interview Questions

1. What is CLAUSE?
SQL clause is used to filter some rows from the whole set of records with the help of different conditional statements. For example, WHERE and HAVING conditions.

2. What is the difference between null, zero and blank space?
Null is neither same as zero nor blank space because it represents a value that is unavailable, unknown, or not applicable at the moment. Whereas zero is a number and blank space belongs to characters.

3. What is a recursive stored procedure?
It is the same as stored procedures but it calls by itself until it reaches any boundary condition. So, it is the main reason why programmers use recursive stored procedures to repeat their code any number of times.

4. What is Union, minus and Intersect commands?
Union operator is used to combining the results of two tables and removes the duplicate rows. Minus is used to return matching records of the first and second queries and other rows from the first query but not by the second one. The Intersect operator is used to return the common rows returned by the two select statements.

5. What is an ALIAS command?
ALIAS name can be given to a column or table and referred in WHERE clause to identify the column or table. Alias column syntax:

SELECT column_name AS alias_name

FROM table_name;

6. What are aggregate and scalar functions?
The aggregate function performs mathematical calculations against a collection of values and returns a single summarizing value. The scalar function returns a single value based on the input value.

7. How can you create an empty table from an existing table?
With the help of the following command, we can create an empty table from an existing table with the same structure with no rows copied:

Select * into copytable from student where 1=2

8. How to fetch common records from two tables?
Common records can be achieved by the following command:

Select studID from student INTERSECT Select StudID from Exam

59. How to fetch alternate records from a table?
Records can be fetched for both Odd and Even row numbers with the following commands:

For even numbers:

Select studentId from (Select rownum, studentId from student) where mod(rowno,2)=0

For odd numbers:

Select studentId from (Select rownum, studentId from student) where mod(rowno,2)=1

10. How to select unique records from a table?
Apply the following SQL query to select unique records from any table:

Select DISTINCT StudentID, StudentName from Student

11. What is the command used to fetch first 4 characters of the string?
Following are the ways to fetch the first 4 characters of the string:

Select SUBSTRING(StudentName,1,4) as studentname from student
Select LEFT(Studentname,4) as studentname from student

12. What is a composite primary key?
The primary key that is created on more than one column is known as composite primary key.

13. Which operator is used in query for pattern matching?
LIKE operator is used for pattern matching.

% (percent sign) Matches zero or more characters and _ (Underscore) is used for matching exactly one character. For example:

Select * from Student where studentname like 'm%'
Select * from Student where studentname like 'meh_'
 What do you mean by ROWID?
ROWID is an 18-character long pseudo column attached with each row of a database table.

14. What are Entities and Relationships?

The entity is the name of real-world objects either tangible or intangible and it is the key element of relational databases. For a database entity, workflow and tables are optional but properties are necessary. For example: In the database of any institute, students, professors, workers, departments and projects can be known as entities. Each entity has associated properties that offer it an identity.

The relationship is the name of links or relations between entities that have something to do with each other. For example, the employee table should be associated with the salary table in the company's database.

15. What are STUFF and REPLACE functions?

STUFF Function is used to insert a string into another string or overwrite existing characters.

Syntax:

STUFF(string_expression,start, length, replacement_characters)
REPLACE function is used to replace any existing characters of all the occurrences.

Syntax:

REPLACE (string_expression, search_string, replacement_string)

16. What are GROUP functions and give some examples?
Group functions are mathematical functions used to work on the set of rows and return one result per group. AVG, COUNT, SUM, VARIANCE, MAX, MIN are most commonly used Group functions.

17. What is the MERGE statement?
MERGE statement is used to combine insert, delete and update operations into one statement. It is also used to synchronize two tables and make the changes in one table based on values matched from another.

18. What are the different case manipulation functions in SQL?
Following are the case manipulation functions in SQL:

LOWER: This function takes a string as an argument and returns it by converting it into the lowercase string.
Syntax:

LOWER('string')

UPPER: This function takes a string as an argument and returns it into uppercase string. Syntax:
UPPER('string')

INITCAP: This function returns the string with the first letter in uppercase and others in lowercase.
Syntax:

INITCAP('string')

19. What are the character manipulation functions?

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Character-Manipulative Functions

1. CONCAT: This function is used to append or concatenate string2 to the end of string1.

Syntax:

CONCAT('String1', 'String2')

2. LENGTH : This function returns the total length of the input string used.

Syntax:

LENGTH(Column|Expression)

3. SUBSTR : This function will return a portion of a string from any given start point to an endpoint.

Syntax:

SUBSTR('String',start-index,length_of_extracted_string)

4. INSTR : This function used to return numeric position of a character (or a string) in any given string.

Syntax:

INSTR(Column|Expression, 'String', [,m], [n])

5. LPAD and RPAD: LPAD returns the strings padded to the left and RPAD to the right (as per the use.

Syntax:

LPAD(Column|Expression, n, 'String')

Syntax:

RPAD(Column|Expression, n, 'String')

6.TRIM : This function is used to trim the string input from the start or end (or both).

Syntax:

TRIM(Leading|Trailing|Both, trim_character FROM trim_source)

7. REPLACE : As the name indicates the REPLACE function searches for a character string and, if found, replaces it with a given replacement string at all the occurrences.

Syntax:

REPLACE(Text, search_string, replacement_string)

20. What is a shared lock?
Shared lock doesn't cause much problems and occurs when the object needs to be read. It comes when two transactions are granted and read access. There is no conflict because noting is being updated due to read-only mode of both transactions.