SQL Day: 2

Difference Between DBMS and RDBMS

DBMS	RDBMS
1) It stores data in the file	1) It sotres the data in a table
2) DBMS stands for Database Managment System	2) RDBMS stands for Relational Database Managment System
3) DBMS is old one.	3) RDBMS is extention of DBMS
4) It support single user.	4) It support multiple users.
5)Here,data is stored in file and these files has no relation	5) Here data is stored in the table and these table has relation
6) It does not suppoert Normlization of data	6) It support normlization of data.
7) It does not support for distribute database	7) It support for distribute database
8) To access or manipulate data ready made method support is not available	8) To access or manipulate data ready made method support is available.

Examples of RDBMS are as below

1) Oracle
2) MySQL
3) MS Access
4) MS SQL Server
5) IBM DB2

SQL

1) SQL stands for Structured Query Language.

2) SQL is not a database, it is language through which we can communicate with Relational Database softwares like Oracle, MySQL, DB2

3) It is not case sensitive language.

Here not case sensitive mean only speling of word is important, case is not important

Create table ✓

CREATE TABLE ✓

creATE TaBLE ✓

Above all statement are valid.

4) With help of SQL we can do following operation

i) We can create a new database.

ii) We can create a table.

iii) We can insert data into table.

iv) We can delete data from table

v) We can drop/delete database

vi) We can delete/drop a table

vii) We can update data.

viii) We can fetch/retrive data from table.

Data types in SQL.
Here Data type is nothing but one type of container.

Data types mainly divided into three type

1) String Data type

2) Numeric Data type

3) Date and Time data type

Here we are going to discuss data types used in oracle.

A) String data type

1) char(size)

--> char stands for character.
--> This data type is used to store character type value.
Example: name of student, name of city, name of employee.
--> This data type is fixed in length.
Fixed in length means ones we delare a variable of char type then we cannot change its size

--> So it is also called static data type.

--> It stores max 2000 characters

*--> If we are not defining size then by default it take 1

emp_name char

2) varchar(size)

- Here varchar stands for variable lenght character.
- Here variable means get varried at run time or get changed at run time.
- Here lenght get changed at run time, means based on your requirement its length it changed
- For Example, I have declared a variable of size 10 but run time I am storing only 5 characters then its size automatically get changed to 5
- Example 2: I have declared a variable of size 10 and at run time I am storing 15 characters then at run time its size not get increased to 15, it remains as 10.

Here If we know the size in advance then use char data type.
If you don't know the size in advance then use varchar data type.

Max size of varchar is 4000 byte

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3) varchar2(size)
It is simillar to varchar but it is introduced by Oracle.

What is difference between varchar and varchar2?
Ans: In oracle varchar and varchar2 are same. The main difference between varchar and varchar2 is varchar is ANSI standard where varchar2 is oracle standard

Difference between char and varchar/varchar2

1) char stands for character where varchar stands for variable character

2) char is fixed in lenght where varchar is variable in length

3) max size of char data type is 2000 where varchar data type max size is 4000

4) char data type is faster than varchar/varchar2

5) char is static where varchar is danyamic.

6) if we know size in advance then we should go with char data type and if we don't know size in advance then we should go with varchar/varchar2 data type.