**Datatypes & Literals**

**11-03-2025**

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1) number

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-> it is one of the datatype in oracle

-> to make represent whole numbers or floating-point values/fractional values/decimal values, we can use "number" type in oracle.

Whole numbers: 10, -10, 100,200,300, etc.

fractional numbers: 0.001, 1.098 etc.

-> there are two ways to define number literals:

1) number(size)

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Ex: studentId number(6);

1

10, 121, 1023, 12345, 765432

2) number

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customerId number;

3) number(precision, size)

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Ex: salary 59987.99

here:

number of digits before decimal point ==> precision

number of digits after the decimal point ==> size

employeeSalary number(6,2);

29339.10;

100000.9;

decimal digit vs decimal value

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12.234

here:

12 ==> decimal number formed with two decimal digits 1 and2

.234 ==> decimal value

2) Alphabet:

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-> three types:

1) char(size)

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-> when we want to define the text with the range of characters from 1 to 2000, we can use "char(size)".

Ex: name char(50);

"Ramesh" ==> 6

-> when we want to define the text in static passion/way, we can use "char(size)".

from the above example,

name has the total capacity of '50'

but we have assigned a value with '6'

remaining are : 44 ==> wastage of memory.

2) varchar(size)

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Ex: employeeName varchar(50);

"Sharath"

-> when we need to define the text dynamically, we can use "varchar(size)"

-> 1 - 4000 characters

-> no memory wastage

-> SQL datatype

3) varchar2(size)

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-> standard datatype of Oracle

->same as the varchar(size)

3) date:

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command:

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select sysdate from dual; ==> default date format

-> the default date format of Oracle is:

"dd-MON-yy"

ex: dateOfJoin date;

"11-Mar-25"

4) Time stamp:

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-> it is the combination of date and time.

-> default format for time stamp is:

"dd-Mon-yy HH:MM:SS";

5) Special Datatypes:

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clob ==> Character Large Object

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size : 1GB to 4GB

Ex: Google Reviews

where we can store with large amount of text, we can use "clob".

blob ==> Binary Large Object

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size: 1GB to 4GB

Ex: Naukri

upload resume

-> when we want to deal with files like: PDFs, .doc, .docx, audio, video etc.

bfile ==> Binary File

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size: 1 GB to 4GB