DATATYPE

"It is used to specify or determine the type of data that will be stored in particular memory location/particular column."

Types of Data type

1. **CHAR**
2. **VARCHAR/VARCHAR2**
3. **DATE**
4. **NUMBER**
5. **LARGE OBJECT**
   - **Character Large Object**
   - **Binary Large Object**

CHAR

- It is used to store uppercase 'A TO Z', 'a to z', '0 to 9' special characters, alpha-numeric characters.

SYNTAX: ***CHAR(SIZE)***

- **SIZE:** It is used to specify numbers of character it can store
- In char data type we can store up to 2000 characters.
- Characters should be enclosed within single quote
- Whenever we assign char data type we must mention size for it.
- Char follows fixed length memory allocation

Example: CHAR (8)

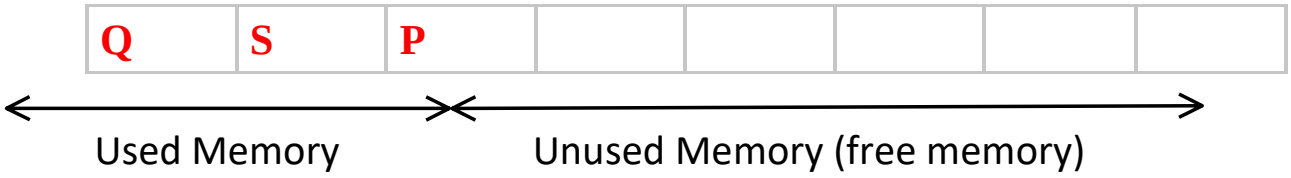
VARCHAR

- It is used to store uppercase 'A TO Z', 'a to z', '0 to 9' special characters, alpha-numeric characters.

SYNTAX: ***VARCHAR(SIZE)***

- In varchar data type we can store up to 2000 characters.
- Characters should be enclosed within single quote
- Whenever we assign varchar data type we must mention size for it.
- Varchar follows variable length memory allocation

Example: VARCHAR (8)



VARCHAR2

- It is an updated version of varchar

SYNTAX: ***VARCHAR2(SIZE)***

- In varchar data type we can store up to 4000 characters.
- When we assign Varchar data type to any column automatically It will convert into Varchar2.

Example:

STUDENT

USN	SNAME	ADDRESS	PAN_NO
CHAR(4)	VARCHAR(10)	VARCHAR(10)	CHAR(10)
QSP1	PINGA	BANGALORE	ABC123XYZ1
QSP2	DINGI	MYSORE	ABC123XYZ2

DATE

- It is used to store date in a particular format.
- It used Oracle specified format.

'DD-MON-YY'	OR	'DD-MON-YYYY'
'22-JUN-20'		'22-JUN-2020'

SYNTAX: DATE

Example:

DOB	**Hiredate**	**Anniversary**
Date	Date	Date
'01-JAN-1945'	'12-JUNE-1949'	'20-JULY-1950'

NUMBER

- It is used to store numeric values.

SYNTAX: NUMBER (PRECISION, [SCALE])

- **[ ]** : Not mandatory
- **Precision**: it is used to determine the number of digits used to store integer value. The maximum size of precision is **38**.
- **Scale:** it is used to determine the number of digits used to store decimal (floating) value within the precision. The maximum is **127**.
- Scale is not mandatory and the default value of scale is zero (0).

Example :	Number (3)	+/- 999
Example :	Number (5 , 0)	+/- 99999
Example :	Number (5 , 2)	+/- 999.99
Example :	Number (7 , 3)	+/- 9999.999
Example :	Number (4 , 4)	+/- .9999
Example :	Number (5 , 4)	+/- 9.9999
Example :	Number (3 , 6)	+/- .000999
Example :	Number (5 , 8)	+/- .00099999
Example :	Number (2 , 7)	+/- .0000099

Example:

EID	PHONE_NO	SALARY
Number(3)	Number (10)	Number (7 , 2)
101	9876543210	9000.85

LARGE OBJECT

- It is used to store large amount of data.

1. Character Large Object.
    - It is used to store large amount of characters upto 4GB.

SYNTAX: CLOB

2. Binary Large Object.
    - It is used to store images, audios, videos, files in the form of binary.

SYNTAX: BLOB