ALTER

It is a DDL statement use to alter the column definitions of a existing table.

Using alter statement we can perform the following operations on a table.

1. adding of new columns
2. dropping of existing columns
3. renaming of a column name
4. modifying of column data type
5. adding of new columns:

syntax:

**sql> alter table <table name> add**

**(**

**<column1 definition>,**

**<column2 definition>,**

**. . . . . . . . . . .**

**);**

**Table altered.**

CREATE:

It is a DDL statement used to create an object in a relational database. If an object is created it will stored permanently in the database.

Syntax to create a table:

Sql> create table <table name>

(

<column1 definition>,

<column2 definition>,

. . . . . . . . . ..,

. . . . . . . . . . .

);

table created

DELETE:

It is a dml statement used to delete a record from the table.

SYNTAX:

Sql> delete [from] <table name>

[where clause];

DROP

It is a DDL statement used to drop an object from the database. If an object is drooped then the information about that object will be deleted from its data dictionary table automatically.

Syntax:

To drop an object:

Sql> drop <object type> <object name>;

TRUNCATE:

It is a DDL statement used to truncate all the data from a table at a time. Truncate is executed faster than the delete statement which cannot be roll backed where as delete can be roll backed.

Syntax:

Sql> truncate table <table name>;

INSERT:

It is a dml statement used to insert a new record in an existing table.

SYNTAX:

Sql> insert into <table name>[(column name(s))] values(value1,value2,value3. . . . . );

Note:

1. a new record is always added only at the end of the existing records
2. By default values should be provided for all the columns of the table.
3. values should be provided to a column only depending on their data types but not on their column names.
4. By default values should be provided based on the default sequence of the columns in a table.

Oracle data types

1. numeric data types

NUMBER[(P,S)]

P is precession which represents the maximum number of digits that can be allowed. Precession can be ranged between 1 to 38

S is scale which represents the rounding position. Scale can be ranged between -84 to 127

No of bytes allocated = round(number of digits/2) + 1

To find the memory allocated to any data type use the functions vsize and dump

Vsize(exp1)

It returns the memory allocated to exp1 in bytes

SQL> select vsize(1234) from dual;

VSIZE(1234)

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3

dump(exp1)

it returns

1. data type
2. memory allocated to exp1
3. internal storage

SQL> select dump(1234) from dual;

DUMP(1234)

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Typ=2 Len=3: 194,13,35

1. String data types

Char[(size)](default is 1)

Varchar<(size)>

Varchar2<(size)>

For char data type size is optional where as for varchar and varchar2 data type size is mandatory

For char data type maximum size that can be allowed is 2000 and for varchar2 data type maximum size is 4000 characters

Varchar2 (stores in ANSI standards) is the renamed format of varchar(stores in ORACLE standards) from the version of oracle 7.0

Char data type is a fixed size where as varchar2 data type is a variable size

SQL> select vsize('abcd') from dual;

VSIZE('ABCD')

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4

SQL> select dump('abcd') from dual;

DUMP('ABCD')

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Typ=96 Len=4: 97,98,99,100

1. Date data types

DATE

In oracle date data type is of fixed size and fixed format ‘DD-MON-YY’ which can be ranged between ’01-JAN-4712 BC’ to ’31-DEC-9999 AD’

DD 🡪 day of the month 2 digits (01-31)

MON 🡪 month in 3 characters (JAN-DEC)

YY 🡪 year in 2 digits (00-99)

Date takes a memory of 7 bytes.

UPDATE:

It is a dml statement used to change the data in a table.

SYNTAX:

Sql> update <table name> set

<column name>=<value>,

<column name>=<value>,

. . . . . . . . . . .

[where clause];

**JOINS:**

It is process of extracting the data from multiple tables.

Joins are of 2 types

1. normal joins:

It is a process of extracting the data from multiple tables by joining the data.

These are of 5 types

1. equi joins
2. non equi joins
3. self joins
4. outer joins
5. Cartesian joins
6. set joins:

it is process of joining the outputs of multiple select statements.

These are of 4 types

1. union
2. intersect
3. minus
4. union all