...ts back as soon as they are produced: when embedded SQL is used, the SQL statements are included as part of a prgrm written in a general-purpose language such as C, C++ or COBOL.

*DDL and DML commands.

*DDL commands

The Basically used DDL commands are:

1) Create
2) Alter
3) Drop.

*Create command

The create command is commonly used for creating a database(table). A base table is a table that has its own independent existence. It is represented in the physical database by a stored file.

To create a base table the sql statement create command is used. The syntax for create

command is,

create table tablename(columnname1 datatype(size),column name2 datatype(size));

eg: create a table student with the following attributes, rollno, name, place and course

create table student(rollno number(5), name varchar (15), place varchar (15), course varchar(10));

*Alter command

The alter command modifies the structures of a table, it is commonly used to add new columns to the existing table and also to change the datatype and size of the existing field name. Alter command is mainly classified into two types

(1) alter with add

The syntax is,

alter table tablename ADD(newcolumnname datatype(size));

Eg: Add a new column to the existing student table as mark.

alter table student ADD (mark number(10));

(2) alter with modify

The syntax is,

alter table tablename MODIFY (columnname newdatatype(size));

Eg: alter table student MODIFY (name varchar (20));

*Drop command

A drop command is commonly used to delete the complete structure of the base table.

The syntax is,

drop table tablename;

Eg: DROP table student;

create a table Employee with the following attributes.

Empno, Empname, address, designation, Salary.

Add a new column, "pincode" into the existing table change the size of the field name, "address".

Ans: create table Employee(Empno number(5), Empname varchar(15), address varchar(20), designation varchar(20), Salary number(6));

alter table Employee ADD (pincode number(6));

alter table Employee MODIFY (address varchar(20));

drop table Employee;

*DML Commands

It includes a query language that consists of commands to insert tuples, delete and modify tuples in a database. It also provides commands to retrieve information from the table.

The commonly used DML commands are:

Insert, delete, update and select.

*Insert

This command is used for inserting rows into the table.

The syntax is,

insert into table name values (value1, value2, ...);

Eg: insert into students values (1, 'sneha', 'paravur',

'bsc');

insert into student values (2, 'Meena', 'Avanesvaram',
'BSC');

insert into student values (3, 'Revathy', 'Pollachi',
'BSC');

*Select

It is used to retrieve datas from the table in a database.

Syntax

method-1

For retrieving all contents from the existing table.

[select(star)* from table name;]

Select * from tablename;

Method-2

For retrieving select contents from the table.

Select columnname1, column name 2 from the tablename.

Method-3

For retrieving selected contents from the table based on conditions.

for setting conditions in the table different operators are used.

select column1, column2 from table name where (condition);

* Update

The update command is used to modify the existing rows of the table.

Syntax

update tablename set columnname = value where (condition);

eg:

update student set mark=50 where rollno=1;

* Delete

delete command is used to remove the already existing rows from the table.

Syntax

delete from tablename;

delete from tablename where (condition);

*Types of operators used in DML commands

*Relational operators

A relational operator is a mathematical symbol that indicates a certain type of ~~composition~~ comparisson b/w two values. The relational operators that used in sql are,

Equal to (==)

Greater than (>)

less than (<)

greator than or equal to (>=)

less than or equal to (<=)

Not equal to (!=)

Retrieve the details the name and salary of a Employee table having salary greater than 10,000

```
Select name, salary from employee where
Salary greater than 10,000
```

* Boolean operators.

AND
OR
NOT

Retrieve the details of all employees with designation =manager and salary greater than 10,000.

Select * from Employee where (designation =manager AND salary greater than 10,000);

* Special operators

1) Between

It defines the range of values in the queries.

Eg: Select name, mark from student where mark between 50 AND 80.

2) Like

It is commonly used for pattern matching. The two special symbols used along with the like operator is % and _

(percentage) (underscore) symbol.

Eg: Retrieve the contents, name of those students from the student table whose name begin with the letter "S".

Ans: Select name from student where name like 'S%';

Select name, rollno from student where name like "S%";

select name from student where name like 'S_%';

3) IN and NOT IN

The IN operator explicitly defines a set on which a given value may/may not be included in the query.

The IN operator defines the set by explicitly naming the numbers of the set in the parantheses seperated by comma operator.

4) Aggragate functions

The commonly used aggragate functions,

1) count()

The count() specifies the no: of rows/ non null field values that query select.

2) Sum()

It represents the arithmetic sum of all selected values of a given field.

3) AVG()

The AVG represents the average of all selected values of a given field.

4) max()

The max represents the maximum of all selected values of a given field.

5) min()

The min represents the minimum of all selected values of a given field.

* Group by and having clause.

The group by clause applies to the aggrigate functions independently to a series of group that are defined by having a field value in common.

Eg: Select groupname, max(mark from student group by name);

If conditions are to be applied on groups, the having clause is used for this purpose. It eliminates some groups from the output satisfying the criteria defined in the query.

Eg: Select name, count(*) from student group by name, having name='BSC';

*Orderby clause

If orders(sort) the query o/p according to the values in one/more selected columns. The default sort type is ascending (Asc) and other is descending (desc)

Eg: Select * from student order by name

Select * from student orderby, name, mark desc;