

123

DBMS LAB

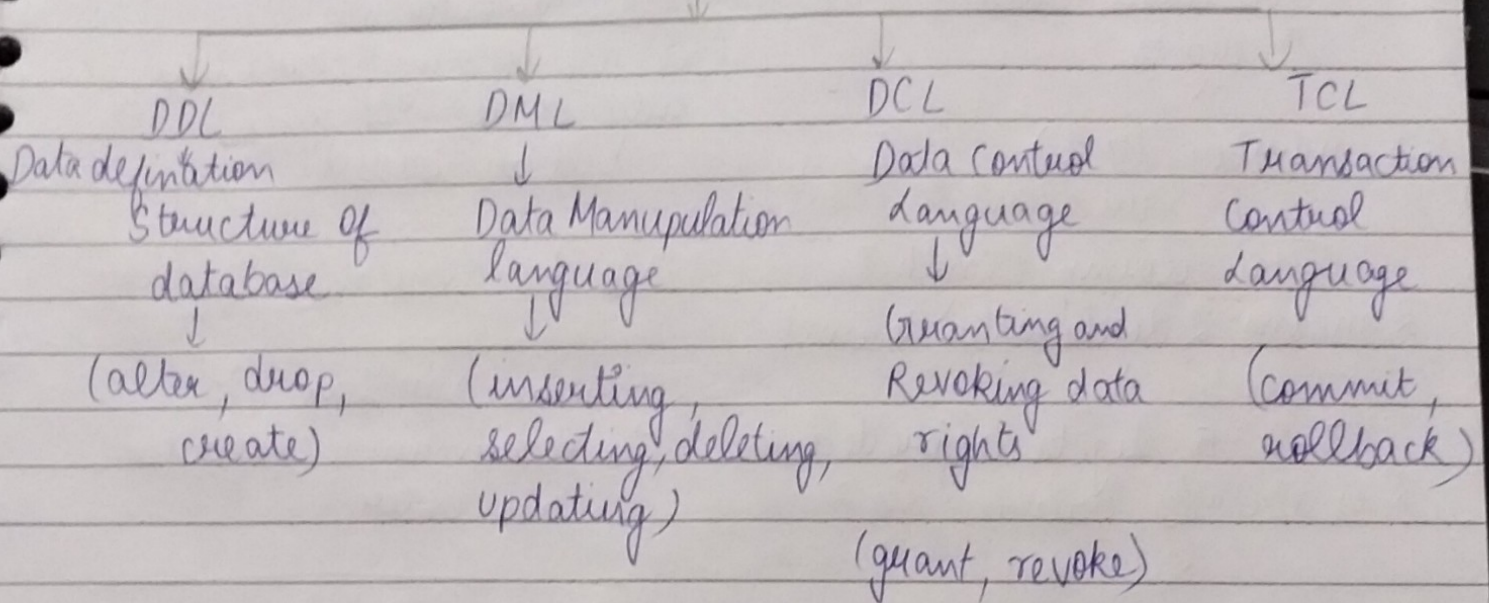
SQL - Structured Query Language

Q) SQL is procedural or Non Procedural?

Ans) Non Procedural

- PL SQL - Procedural (what I need, how to fetch, a complete procedure is specified to fetch particular data)

SQL TYPES



Q) Alter VS Update → Changing values of cell/record/column

↓
Changing the structure of database eg- adding new column

field = column

SQL DATATYPES

1. Number

- integer datatype

Eg) number (5)

↓
A particular field
will have max
5 digits

Eg) number (7, 2)

↓ (equivalent to float)

Total column length = 7

2 means 2 digits after decimal

$7 - 2 = 5$ digits before decimal
2 is already included in 7

2. char

- name char (6);
6 characters are reserved
for name column

P	E	A	R	L	
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- Max u can enter is 6
- We are entering 5 characters
only so rest of space
will be wasted

varchar (variable character)

- name varchar (6);
- maximum 6 character u
can enter

P	E	A	R	L	
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3. date

"dd/mm/yyyy"

- It will only allocate us
5 characters

- Rest of space will not get
wasted

create table student26 (roll no number, name varchar(10),
dob date, fee number (7(2)));

// Table is created

insert into student26 values (101, 'Ajay', '11/Dec/1998', 11234.67);
(In month 3 characters can come)

insert into student26 (roll no, name, dob) values (102, 'Ahan', '12/Nov/1999');
when we don't want to insert fee

select * from student26;
↓ All values

desc student26; Structure of table will be shown.

rename student26 to student; Table name is changed

select * from student where roll-no = '101';
Particular value.

select roll-no from student;

↓
Only one column from student table will be displayed

alter table student add (address varchar(20)); // Add extra column

// Dealing with values update.

update student set address = 'kota' where roll-no = 101;

// Creating other table

Create table student123 (roll no number, books-issued number);

insert into student123 values (103, 3);

// Union roll no. It will combine all values of roll no of both table.
select roll no from student union all select roll no
from student 123;

// Delete entire data from table.
delete from student;

// Delete specific row
delete from student where roll no = 102;

DROP Vs TRUNCATE

↓
Deletes ~~command~~ table
content as
well as
table from
memory

↓
Deletes table contents as well as
table from memory
(entire structure gets deleted)

drop table student;
truncate table student 123;

// Union roll no. It will combine all values of roll no of both tables.
 select roll no from student union all select roll no from student 123;

// Delete entire data from table.
 delete from student;

// Delete specific row
 delete from student where roll no = 102;

DROP Vs TRUNCATE

Deletes ~~command~~ table content as well as table from memory

Deletes table contents as well as table from memory
 (entire structure gets deleted)

drop table student;
 truncate table student 123;

create table stud (roll no number, name varchar(10),
 age number, fee number);

insert into stud (101, 'Ajan', 16, 1000);
 insert into stud (102, 'Ajay', 16, 12000);
 insert " " (103, 'Ajit', 17, 15000);
 " " (104, 'Amity', 18, 19000);

select* from stud where name = 'Ajit';
condition

Only one student
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Like clause - used with string type data or char type data

select* from stud where name like 'AJ%';
First 2 char of name are A and J

(means presence of 0 or any no of characters)

Wild card used with like clause

'_' is a wildcard character which is used with like clause and represents exactly one character

select* from stud where name like ' _ i %';
name with third char is i

so 2 underscores

check kare ke ye hai kya take me

select* from stud where name in ('Ajay', 'Ajit');
clause

Salary b/w 15000 and

select roll-no, name from stud where fee between 15000 and 19000;

Upper limit and lower limit is included

// Order by Used to sort data

select* from stud order by roll-no default ascending order by

select* from stud order by roll-no desc;

decending order not describe

select * from stud order by name desc;
Done on string

// And clause Age is 16 and fee = 12000

select * from stud where age = 16 and fee = 12000;
both should be true

// OR clause Any condition true

select * from stud where age = 16 or fee = 10000;

// list roll_no, name, age, fee and 15% hike in fee

select roll_no, name, age, fee, fee + fee * 0.15 from stud;

select roll_no, age, name, fee, fee + 0.15 ^{keyword} as updated_fee from stud;

Dept

DID	ENO	Salary
10	101	10000
10	102	20000
10	103	30000
20	104	50000
20	105	40000

group by

Dept 10 ki total

Dept 20 ki total

select DID, sum(salary) from dept group by DID

count = no. of rows

requires aggregate function like min, max, count

create table ^{dept} (did number, eid number, sal number);

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insert into dept (10, 101, 10000);

insert into dept (10, 102, 20000);

insert into dept (10, 103, 30000);

" " (20, 104, 50000);

" " (20, 101, 60000);

select did, sum(sal) from dept group by did;

select did, max(sal) " " " " " " ;

" " min(sal) " " " " " " ;

select sum(sal) from dept;