Create table

account(acid int,custid int, type varchar(20), balance double(9,2))

primary key ----acid

foreign key ---custid references customer(custid)

customer(custid int, cname varchar(20),address varchar(20),mgrid int)

primary key----custid

foreign key----mgrid references manager(mgrid)

Managers(mgrid int,mname varchar(20),mobile char(15))

primary key----mgrid

create table manager(

mgrid int primary key,

mname varchar(20) not null,

mobile char(15)

)

Create table customer(

Custid int primary key,

Cname varchar(20) not null,

Address varchar(20),

Mgrid int,

Constraint fk_mgr foreign key (mgrid) references manager(mgrid)

On delete set null

On update cascade

)

Create table account(

Acid int primary key,

Custid int,

Type varchar(20),

Balance double(9,2),

Constraint fk_custid foreign key (custid) references customer (custid)

On delete set null

On update cascade

);

----------insert record

insert into manager values(100,'tanaya',0100020);

insert into manager values(101,'ram',0102020);

insert into manager values(103,'raj',0103030);

insert into customer values(200,'raju','pune',100);

insert into customer values(202,'rama','mumbai',101);

insert into customer values(203,'karan','nashik',101);

insert into customer values(204,'kirti','nashik',100);

insert into account values(1000,200,'saving',2000);

insert into account values(1001,200,'dmat',2050);

insert into account values(1002,203,'dmat',3023);

insert into account values(1002,202,'dmat',3000);

insert into account values(1003,202,'current',4000);

1. Display cusid, name, acid, balance, manager id for all customers
2. Display cusid, name, acid, balance, manager id for all customers who stays in nashik
3. Display cusid, name, acid, balance, manager id for all customers whose relation manager is tanaya
4. Display cusid, name, acid, balance for all customers whose relation manager name starts with r.
5. Display all customer details and account details who has demat account
6. Display all manager details and customer details of all customers who has saving account
7. Display all account details and customer details whose balance > 3000 and customer stays in pune
8. Display all customer details , manager details also display all managers who is not relation manager of any customer
9. Display all customer details , account details also display all customers who has not opened any account
10. Display all customer details , account details and manager details, also display all customers who has not opened any account, and also display all managers who is not relation manager for any customer
11. To find all managers who is not relation manager for any customer.

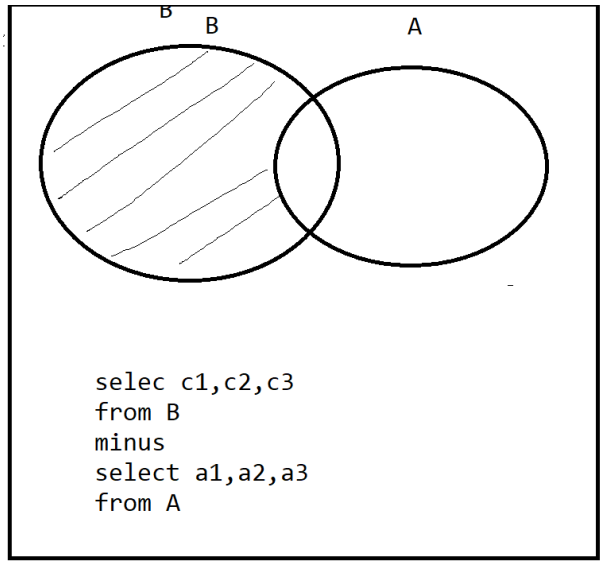
12. Display all manager details whose customer stays in nashik

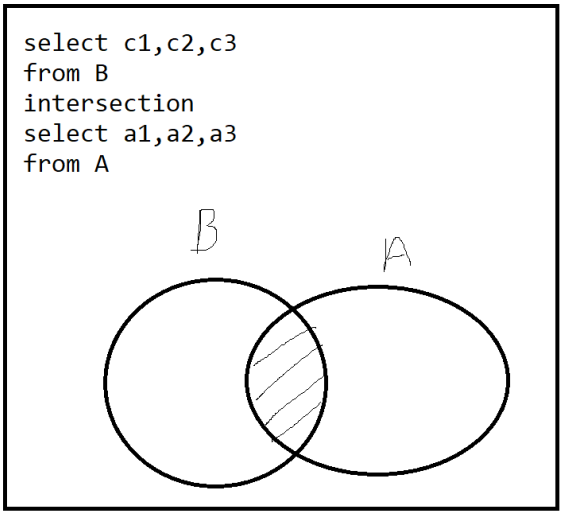
Set operators--- in mysql only union operator works, but in oracle all 3 operators work

Union

Intersection

Minus





Union of 2 queries

```
select empno,ename
    -> from emp
    -> where sal>2000
    -> union
    -> select empno, ename
    -> from emp
    -> where deptno=10;
```

Combining o/p of many tables

```
select *
    -> from emp_us
    -> union
    -> select *
    -> from emp_india
    -> union
```

-> select *

-> from emp_japan;

DDL- Data definition language—these statements are autocommit

Create table	To create new table
Alter table	To modify table structure
Drop table	To delete table and data both
Truncate table	To delete only data from table , it will keep empty table

Both the queries will delete all rows from emp table

Delete from emp;

Truncate table emp;

Difference between truncate and delete

delete	truncate
In delete statement we may use where clause	Where clause cannot be used in truncate
It is DML statement	It is DDL statement
Rollback is possible	Since all DDL statements are autocommit, rollback is not possible

TCL --- transaction control language

Can be used only for DML operation changes

commit	It makes the changes in the table permanent
Rollback Or rollback to <savepoint name>	It undo the changes in the table , if it is not committed, or upto some savepoint
Savepoint A	It add marks in between the statement

To set autocommit off

Set autocommit=0

To set autocommit on

Set autocommit=1

DCL--- data control language

grant	It assigns the permission for user to the table

revoke	It removes permissions for user from the table

- CREATE- allows them to create new tables or databases
- DROP- allows them to them to delete tables or databases
- DELETE- allows them to delete rows from tables
- INSERT- allows them to insert rows into tables
- SELECT- allows them to use the `SELECT` command to read through databases
- UPDATE- allow them to update table rows
- GRANT OPTION- allows them to grant or remove other users' privileges

To assign all permissions to user1 on table emp

```
GRANT ALL PRIVILEGES ON emp TO 'user1'@'localhost';
```

```
GRANT ALL PRIVILEGES ON emp TO 'user1'@'localhost' with grant option
```

To grant all persissions to all databases all tables to newuser

```
GRANT ALL PRIVILEGES ON * . * TO 'newuser'@'localhost';
```

To assign only select, insert permissions to user1 on table emp

```
GRANT select,insert ON test.emp TO 'user1'@'localhost';
```

To make these permissions permanent

```
FLUSH PRIVILEGES;
```

To remove the permission

```
REVOKE type_of_permission ON database_name.table_name FROM
'username'@'localhost';
```

To remove select and create permissions for user 1 on emp

Revoke select,create on test.emp from 'user1'@'localhost'

Temporary table

Temporary table will remain available only till current session is active, it will be deleted once you logout.

Create temporary table mytab(

Id int,

Name varchar(20))engine=MYISAM

ACID properties in database

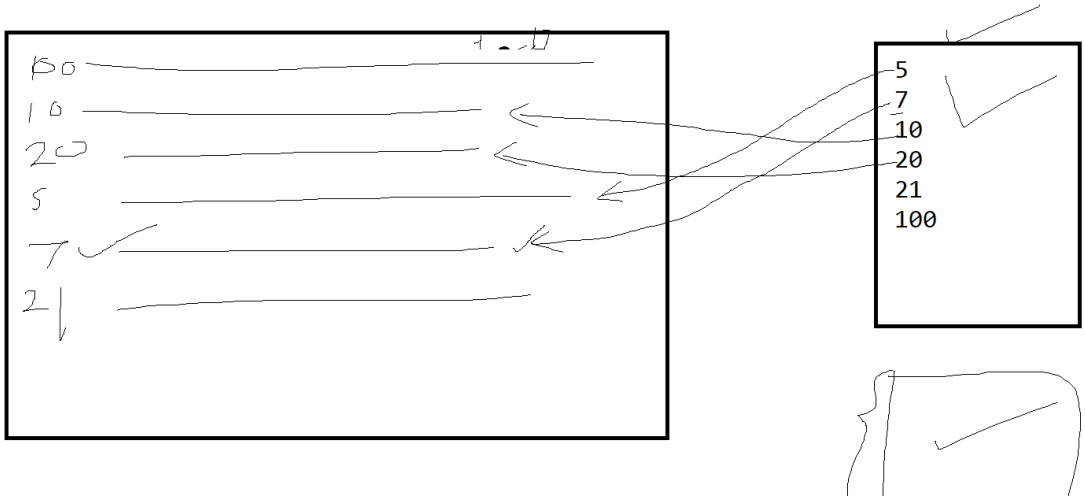
Atomicity	Every transition will be executed as single unit Begin transaction Check a/c Withdraw amount from source a/c Write updated balance in source a/c Deposit amount in destination a/c Write updated balance in destination a/c End transaction
Consistency	If the correctness of data is retained for every transaction
Isolation	If o/p of every transaction is visible to other users only after commit
durability	It supports all these properties for longer period of time

Indexes and views

Indexes are used for faster searching.

Indexes are special files in which it stores keys and its position.

The data in index file is always in the sorted order of keys.



Select *

From emp

Where sal>2000;