-------list all faculties who are not allocated to any course and rooms which are not allocated to any course

select f.fid,fname,cname,rname

from faculty f left join course c on f.fid=c.fid left join room r on c.rid=r.rid

union

select f.fid,fname,cname,rname

from faculty f left join course c on f.fid=c.fid right join room r on c.rid=r.rid

-------to insert records from existing table

if dept table is there and it contains 3 rows if you want to store the data into another

create table mydept

(

id int

name varchar(20)

)

----create a table from existing table and also populate with data

create table mydept as

select \* from dept

where detptno>20

create table mydept as

select deptno,dname from dept

where 1=2;

-------to insert data using nested query

insert into mydept(deptno,dname)

select deptno,dname

from dept;

-----if you want to create temporary table

create temporary table mytemp

(id int,

name varchar(20)

)

Storage engines

InnoDB – it is most widely used if you want to perform secure transaction,

it supports ACCID property

supports row level locking

MyISAM—this origin engine. it is fast storage engine, usually used in data warehousing

or if you need table level locking

Archive

Federated

create table mytab(

id int,

name varchar(20))ENGINE=’MyISAM’

------to change the engine

alter table mytab ENGINE=’InnoDB’

------ to see the engine

select Engine from information\_schema.tables

-> where table\_name='dept' and table\_schema='iacsdedacmay21';

---------indexes in mysql

select \* from dept

where deptno=200;

------indexes are created automatically for primary key and unique

create index my\_sal\_idx

on emp(sal)

create index my\_sal\_idx1

on myemp(sal)

-----to create index using alter table

alter table emp add index(sal)

drop index my\_sal\_idx on emp;

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Empno | Ename | Sal | Deptno | desg |
| 12 | Rajas | 34000 | 20 | CLERK |
| 14 | Rashmi | 45000 | 30 | SALESman |
| 15 | Anil | 150000 | 10 | CEO |
| 16 | Swapnali | 25000 | 20 | Programmer |
| 17 | Swapnali | 25000 | 20 | Programmer |
| 18 | Sonali | 30000 | 30 | Programmer |
| 19 | Sonali | 35000 | 30 | Programmer |
|  |  |  |  |  |

product(pid,pname,qty,price) --------2000 , 3000

select \* from emp where sal between 20000 and 50000

my\_sal\_idx

|  |  |
| --- | --- |
| sal | position |
| 25000 | 4,5 |
| 30000 | 6 |
| 34000 | 1 |
| 35000 | 7 |
| 45000 | 2 |
| 150000 | 3 |

Why to use index

1. to run queries faster which uses where clause or order by clause
2. optimize the query execution for group by clause
3. finding min() and max() faster

----drawback

1. DML(insert, delete, update) operations will become slow
2. memory requirements will grow

-----to create composite index

create index my\_sal\_idx

on emp(sal desc ,job)

Types of indexes

1. unique index

this does not allow duplicate values in the column

create unique index passport\_idx

on emp(passport)

1. primary key

to create this index automatically add primary key constraint on table

1. regular index or normal index

create index sal\_idx

on emp(sal,job)

1. Full text

these indexes helps to search certain words in large text

these indexes are uses in e-commerce site, search engines

fulltext indexes are supported by InnoDB,MyISAM’can be created only on columns of type char, varchar,text

create fulltext index sal\_idx

on emp(sal,job)

1. spatial index

not widely used

these are created on column which may contain most of the values null and we want to add only not null values in the column.

create spatial index sal\_idx

on emp(sal,job)

1. descending index

create index sal\_idx

on emp(sal desc,job)

------- to see all indexes

show indexes from emp

--------to drop index

drop index indexname on tablename

-------- to check which index is used in the table for the query

explain select \* from emp where ename=’BLAKE’

select \* from emp

use index(ename\_idx,sal\_idx)

where ename=’BLAKE’

------ create views

why to create view

1. to give only restricted information
2. to hide complexity of the query
3. to increase the security ---- by hiding table name

create view mgr10

as

select empno,ename,job from emp

where deptno=10

-------to allow to add only rows with deptno =10

create view mgr10

as

select empno,ename,job, sal,deptno from emp

where deptno=10

with check option

with read only; ----------------------- works in oracle

insert into mgr10 values(223,'Sonali','analyst',3457,10);

insert into mgr10 values(223,'Sonali','analyst',3457,20);

create view myempdept

as

select empno,ename,sal,dname

from emp e inner join dept d on e.deptno=d.deptno;

insert into myempdept values(123,’xxx’,3456,’HR’)

emp\_india ( empno,ename,sal,job,location)

emp\_US ( empno,ename,sal,job,location)

emp\_Japan ( empno,ename,sal,job,location)

create view allemp

as

select \* from emp\_india

union

select \* from emp\_us

union

select \* from emp\_japan

-------use views

select \* from allemp