

DDL STATEMENTS:

Create table person

```
(login      varchar(20) primary key,  
Password    varchar(20),  
id          varchar(20),  
name        varchar(20),  
address     varchar(30),  
phno        numeric(10,0),  
type        varchar(20)  
);
```

Create table leavetype

```
(ltid       varchar(20) primary key,  
ltname     varchar(30),  
typecount  numeric(3,0));
```

Create table contains

```
(login  varchar(20) references person(login),  
ltid    varchar(20) references leavetype(ltid));
```

Create table authority

```
(aid      varchar(20) primary key,  
aname     varchar(20),  
aaddress  varchar(30),  
aphno     numeric(10,0));
```

Create table leave

```
(leaveid   varchar(20) primary key,  
Reason     varchar(50),  
count      numeric(3,0),  
apprstatus varchar(20),  
fromdate   date,  
todate     date,  
aid        varchar(20) references authority(aid)  
);
```

create table apply

```
(login  varchar(20) references person(login),  
ltid    varchar(20) references leavetype(ltid),  
leaveid varchar(20) references leave(leaveid));
```

create table specialrequest

```
(exid varchar(20) primary key,  
ecount numeric(3,0));
```

create table extends

```
(leaveid varchar(20) references leave(leaveid),  
exid varchar(20) references specialrequest(exid));
```

DML STATEMENTS:

insert into person values

```
('user1','dbms1','s001','Sai','nellore',9010100876,'student'),  
('user2','dbms2','f001','Nayana','kollam',9020407876,'faculty'),  
('user3','dbms3','s002','Ayan','tirchur',9010602904,'student'),  
('user4','dbms4','f002','Navneeth','malappuram',8020407876,'faculty');
```

insert into leavetype values

```
('lt01','casual',14),  
('lt02','maternity',180),  
('lt03','medical',15),  
('lt04','duty leave',5),  
('lt05','sabbatical',10);
```

insert into contains values

```
('user1','lt04'),  
('user2','lt02'),  
('user1','lt03');
```

insert into authority values

```
('a001','greeshma','kochi',9443322551),  
('a003','remya','allepey',7443322551),  
('a002','anjali','trivandrum',8909014356);
```

insert into leave values

```
('l004','maternity',150,'Y','2007-03-10','2007-08-10','a002'),  
('l003','duty leave',2,'N','2007-07-17','2007-07-19','a001'),  
('l001','sisters marriage',3,'Y','2019-09-11','2019-09-14','a001'),  
('l005','jaundice',10,'Y','2006-02-10','2006-02-20','a003'),  
('l002','viral fever',7,'Y','2018-12-4','2018-12-10','a002');
```

insert into apply values

```
('user1','lt04','l003'),  
('user2','lt02','l004'),  
('user1','lt03','l005');
```

insert into specialrequest values

```
('e001',2),  
('e002',1);
```

insert into extends values

```
('l004','e001');
```

select leaveid,count from leave group by leaveid having count <=7;

Output pane		
Data Output Explain Messages History		
	leaveid character varying(20)	count numeric(3,0)
1	1002	7
2	1003	2
3	1001	3

select sum(typecount) from leavetype ;

Output pane	
Data Output Explain Messa	
	sum numeric
1	224

select * from leave order by fromdate asc;

Output pane							
Data Output Explain Messages History							
	leaveid character varying(20)	reason character varying(50)	count numeric(3,0)	apprstatus character varying(20)	fromdate date	todate date	aid character varying(20)
1	1005	jaundice	10	Y	2006-02-10	2006-02-20	a003
2	1004	maternity	150	Y	2007-03-10	2007-08-10	a002
3	1003	duty leave	2	N	2007-07-17	2007-07-19	a001
4	1002	viral fever	7	Y	2018-12-04	2018-12-10	a002
5	1001	sisters marriage	3	Y	2019-09-11	2019-09-14	a001

```

select extends.exid,ecount from extends
full outer join specialrequest
ON extends.exid=specialrequest.exid;

```

select extends.exid,ecount from extends

Output pane

	exid character varying(20)	ecount numeric(3,0)
1	e001	2
2		1

```

select extends.exid,ecount from extends
join specialrequest
ON extends.exid=specialrequest.exid;

```

Output pane

	exid character varying(20)	ecount numeric(3,0)
1	e001	2

```

select distinct(leavetype.ltid),leavetype.ltname from leavetype
natural join apply,leave
where leavetype.ltid = apply.ltid
and apply.leaveid = leave.leaveid
and apprstatus = 'N'
and not extract(year from fromdate) = 2007
or aid ='a002' ;

```

Output pane		
Data Output	Explain	Messages History
	ltid character varying(20)	lname character varying(30)
1	1t02	maternity
2	1t04	dutyleave
3	1t03	medical

```
select * from leave
where extract(year from fromdate) > 2007
and extract(year from fromdate) < 2019
and count = 7;
```

Output pane							
Data Output	Explain	Messages	History				
	leaveid character varying(20)	reason character varying(50)	count numeric(3,0)	apprstatus character varying(20)	fromdate date	todate date	aid character varying(20)
1	1002	viral fever	7	Y	2018-12-04	2018-12-10	a002

```
select * from person
where type like 'f%';
```

Output pane							
Data Output	Explain	Messages	History				
	login character varying(20)	password character varying(20)	id character varying(20)	name character varying(20)	address character varying(30)	phno numeric(10,0)	type character varying(20)
1	user2	dbms2	f001	Nayana	kollam	9020407876	faculty
2	user4	dbms4	f002	Navneeth	malappuram	8020407876	faculty

```
select * from person
where name like '_a%';
```

Output pane							
	login character varying(20)	password character varying(20)	id character varying(20)	name character varying(20)	address character varying(30)	phno numeric(10,0)	type character varying(20)
1	user1	dbms1	s001	Sai	nellore	9010100876	student
2	user2	dbms2	f001	Nayana	kollam	9020407876	faculty
3	user4	dbms4	f002	Navneeth	malappuram	8020407876	faculty

```
select * from leave
where extract(month from todate) = 9;
```

	leaveid character varying(20)	reason character varying(50)	count numeric(3,0)	apprstatus character varying(20)	fromdate date	todate date	aid character varying(20)
1	1001	sisters marriage	3 Y		2019-09-11	2019-09-14	a001

```
select leaveid,to_char(todate,'DD/Month/YYYY') from leave;
```

	leaveid character varying(20)	to_char text
1	1001	14/September/2019
2	1002	10/December /2018
3	1003	19/July /2007
4	1004	10/August /2007
5	1005	20/February /2006

```
select * from leave
where extract(year from fromdate) between 2007 and 2019
and reason in ('maternity','viral fever')
```

	leaveid character varying(20)	reason character varying(50)	count numeric(3,0)	apprstatus character varying(20)	fromdate date	todate date	aid character varying(20)
1	1002	viral fever	7 Y		2018-12-04	2018-12-10	a002
2	1004	maternity	150 Y		2007-03-10	2007-08-10	a002

```
select * from leave
where extract(year from fromdate) not between 2017 and 2019
and reason not in ('maternity','viral fever')
```

Output pane							
	leaveid character varying(20)	reason character varying(50)	count numeric(3,0)	apprstatus character varying(20)	fromdate date	todate date	aid character varying(20)
1	1003	duty leave	2	N	2007-07-17	2007-07-19	a001
2	1005	jaundice	10	Y	2006-02-10	2006-02-20	a003

```
select distinct(leave.leaveid),authority.aname from leave natural join authority where aid = 'a001' union
select distinct(leave.leaveid),authority.aname from leave natural join authority where aid = 'a003';
```

Output pane		
	leaveid character varying(20)	aname character varying(20)
1	1001	greeshma
2	1003	greeshma
3	1005	remya

```
select distinct(leave.leaveid),authority.aname from leave natural join authority where aid = 'a001' union all
select distinct(leave.leaveid),authority.aname from leave natural join authority where aid = 'a003';
```

Output pane		
	leaveid character varying(20)	aname character varying(20)
1	1001	greeshma
2	1003	greeshma
3	1005	remya

```
select distinct(leave.leaveid),authority.aname from leave natural join authority where aid = 'a001' except
select distinct(leave.leaveid),authority.aname from leave natural join authority where aid = 'a003';
```

Output pane			
Data Output Explain Messages History			
	leaveid character varying(20)	aname character varying(20)	
1	1003	greeshma	
2	1001	greeshma	

```
select distinct(leave.leaveid),authority.aname from leave natural join authority where aid = 'a001' intersect
select distinct(leave.leaveid),authority.aname from leave natural join authority where aid = 'a003';
```

Output pane			
Data Output Explain Messages History			
	leaveid character varying(20)	aname character varying(20)	

```
select name,address,phno from person where login =
(select login from apply where leaveid = ( select leaveid from leave where count = (select
max(count) from leave )))
```

Output pane			
Data Output Explain Messages History			
	name character varying(20)	address character varying(30)	phno numeric(10,0)
1	Nayana	kollam	9020407876

```
SELECT name,address,phno
FROM person
WHERE NOT EXISTS (SELECT login FROM apply WHERE leaveid in ( select leaveid from
leave));
```

Output pane			
Data Output Explain Messages History			
	name character varying(20)	address character varying(30)	phno numeric(10,0)

