

WEEK 8

VIBHA HUGAR CS255

CREATION

create database airline;

use airline;

create table flights(

flno int,

from_ varchar(20),

to_ varchar(20),

distance int,

departs time,

arrives time,

price int,

PRIMARY KEY(flno)

);

create table aircraft(

aid int,

aname varchar(20),

cruisingRange int,

PRIMARY KEY(aid)

);

create table employee(

eid int,

ename varchar(20),

salary int,

PRIMARY KEY(eid)

);

```

create table certified(
eid int,
aid int,
FOREIGN KEY(eid) REFERENCES employee(eid) on update
cascade on delete cascade,
FOREIGN KEY(aid) REFERENCES aircraft(aid) on update cascade
on delete cascade
);

```

INSERTION

```

insert into flights
values(1,'Bengaluru','NewDelhi',500,'06:00','09:00',5000),(2,'Bengaluru','Chennai',300,'07:00','08:30',3000),(3,'Trivandrum','NewDelhi',800,'08:00','11:30',6000),
(4,'Bengaluru','Frankfurt',10000,'06:00','23:30',50000),(5,'Kolkata','NewDelhi',2400,'11:00','03:30',9000),(6,'Bengaluru','Frankfurt',8000,'09:00','23:00',40000);

```

```

insert into employee
values(101,'Avinash',50000),(102,'Lokesh',60000),(103,'Rakesh',70000),(104,'Santhosh',82000),(105,'Tilak',5000);

```

```

insert into aircraft
values(1,'Airbus',2000),(2,'Boeing',700),(3,'JetAirways',550),(4,'Indigo',5000),(5,'Boeing',4500),(6,'Airbus',2200);

```

```



insert into certified
values(101,2),(101,4),(101,5),(101,6),(102,1),(102,3),(102,5),(103,2),(103,3),(103,5),(103,6),(104,6),(104,1),(104,3),(105,3);

```

```

select * from employee;


```

Result Grid   Filter Row			
	eid	ename	salary
▶	101	Avinash	50000
	102	Lokesh	60000
	103	Rakesh	70000
	104	Santhosh	82000
	105	Tilak	5000
*	NULL	NULL	NULL

select * from aircraft;

	aid	aname	cruisingRange
▶	1	Airbus	2000
	2	Boeing	700
	3	JetAirways	550
	4	Indigo	5000
	5	Boeing	4500
	6	Airbus	2200
*	NULL	NULL	NULL

select * from certified;

Result Grid 		
	eid	aid
▶	101	2
	101	4
	101	5
	101	6
	102	1
	102	3
	102	5
	103	2
	103	3
	103	5
	103	6
	104	6
	104	1
	104	3
	105	3

select * from flights;

Result Grid							
Filter Rows:							
	fno	from_	to_	distance	departs	arrives	price
▶	1	Bengaluru	NewDelhi	500	06:00:00	09:00:00	5000
	2	Bengaluru	Chennai	300	07:00:00	08:30:00	3000
	3	Trivandrum	NewDelhi	800	08:00:00	11:30:00	6000
	4	Bengaluru	Frankfurt	10000	06:00:00	23:30:00	50000
	5	Kolkata	NewDelhi	2400	11:00:00	03:30:00	9000
	6	Bengaluru	Frankfurt	8000	09:00:00	23:00:00	40000
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL

QUERY i

select (a.aname) from employee e inner join certified c on e.eid=c.eid and e.salary>80000 inner join aircraft a on a.aid=c.aid;

	aname
▶	Airbus
	Airbus
	JetAirways

QUERY ii

select c.eid, max(a.cruisingRange) as maxrange
from aircraft a, certified c
where c.aid=a.aid group by c.eid having count(*)>=3;

	eid	maxrange
▶	102	4500
	104	2200
	101	5000
	103	4500

QUERY iii

select ename from employee where salary<any(select price
from flights where from_='Bengaluru' and to_='Frankfurt');

Result Grid	
	ename
▶	Tilak

QUERY iv

select c.aid,a.aname, AVG(e.salary) from certified c, aircraft a, employee e where a.cruisingRange>1000 and e.eid=c.eid and a.aid=c.aid group by c.aid;

	aid	aname	AVG(e.salary)
▶	1	Airbus	71000.0000
	4	Indigo	50000.0000
	5	Boeing	60000.0000
	6	Airbus	67333.3333

QUERY v

select distinct e.ename from employee e, certified c, aircraft a where a.aid=c.aid and e.eid=c.eid and a.aname='Boeing';

Result Grid	
	ename
▶	Avinash
	Rakesh
	Lokesh

QUERY vi

select a.aid from flights f, aircraft a where (f.from_='Bengaluru' and f.to_='NewDelhi') and f.distance<=a.cruisingRange;

	aid
▶	1
	2
	3
	4
	5
	6