

```
drop table if exists employeeDetails;
drop table if exists company;
drop table if exists jobskill;
drop table if exists manages;
```

```
\qecho 'Problem 1'
```

```
-- Creating tables and inputting values
```

```
create table employeeDetails(empid integer, empname text, empcity text, compname
text, empsalary integer, primary key(empid));
```

```
create table company(compname text, complocation text, primary key(compname,
complocation));
```

```
create table jobskill(empid integer, domain text, primary key(empid, domain),
foreign key(empid) references employeeDetails(empid));
```

```
create table manages(mid integer, eid integer, foreign key(mid) references
employeeDetails(empid), foreign key(eid) references employeeDetails(empid));
```

```
INSERT INTO employeeDetails VALUES
(9001,'Jean','Bloomington','Adobe',60000),
(9002,'Vidya','Indianapolis','Adobe',45000),
(9003,'Anna','Chicago','Facebook',55000),
(9004,'Qin','Denver','Facebook',55000),
(9005,'Aya','Chicago','SAP',60000),
(9006,'Ryan','Chicago','Facebook',55000),
(9007,'Danielle','Indianapolis','HBO',50000),
(9008,'Emma','Bloomington','Facebook',50000),
(9009,'Hasan','Bloomington','Adobe',60000),
9010,'Linda','Chicago','Facebook',55000),
(9011,'Nick','NewYork','SAP',55000),
(9012,'Eric','Indianapolis','Adobe',50000),
(9013,'Lisa','Indianapolis','HBO',55000),
(9014,'Deepa','Bloomington','Adobe',50000),
(9015,'Chris','Denver','Facebook',60000),
(9016,'YinYue','Chicago','Facebook',55000),
(9017,'Latha','Indianapolis','HBO',60000),
(9018,'Arif','Bloomington','Adobe',50000);
```

```
INSERT INTO company VALUES
('Adobe','Bloomington'),
('Facebook','Chicago'),
('Facebook','Denver'),
('Facebook','Columbus'),
('SAP','NewYork'),
('HBO','Indianapolis'),
('HBO','Chicago'),
('eBay','Bloomington');
```

```
INSERT INTO jobskill VALUES
(9001,'Programming'),
(9001,'AI'),
(9002,'Programming'),
(9002,'AI'),
(9004,'AI'),
(9004,'Programming'),
```

```

(9005, 'AI'),
(9005, 'Programming'),
(9005, 'Networks'),
(9006, 'Programming'),
(9006, 'OperatingSystems'),
(9007, 'OperatingSystems'),
(9007, 'Programming'),
(9008, 'Programming'),
(9009, 'OperatingSystems'),
(9009, 'Networks'),
(9010, 'Networks'),
(9011, 'Networks'),
(9011, 'OperatingSystems'),
(9011, 'AI'),
(9011, 'Programming'),
(9012, 'AI'),
(9012, 'OperatingSystems'),
(9012, 'Programming'),
(9013, 'Programming'),
(9013, 'AI'),
(9013, 'OperatingSystems'),
(9013, 'Networks'),
(9014, 'OperatingSystems'),
(9014, 'AI'),
(9014, 'Programming'),
(9014, 'Networks'),
(9015, 'Programming'),
(9015, 'AI'),
(9016, 'Programming'),
(9016, 'OperatingSystems'),
(9016, 'AI'),
(9017, 'Networks'),
(9017, 'Programming'),
(9018, 'AI');

```

```

INSERT INTO manages VALUES
(9001, 9002),
(9001, 9009),
(9001, 9012),
(9009, 9018),
(9009, 9014),
(9012, 9014),
(9003, 9004),
(9003, 9006),
(9003, 9015),
(9015, 9016),
(9006, 9008),
(9006, 9016),
(9016, 9010),
(9005, 9011),
(9013, 9007),
(9013, 9017);

```

\qecho 'Problem 2'

-- Starting Problem 2

\qecho 'Problem 2.1'

```
SELECT e.empid, e.empname, e.compname, e.empsalary FROM employeeDetails e Where  
e.empcity = 'Indianapolis' AND 45000 <= e.empsalary AND e.empsalary <= 60000 ORDER  
BY empsalary DESC;
```

\qecho 'Problem 2.2'

```
SELECT DISTINCT e.empid, e.empname FROM employeeDetails e, jobskill j WHERE  
e.empcity = 'Indianapolis' AND e.empid = j.empid AND j.domain = 'OperatingSystems'  
AND e.empsalary > 40000;
```

\qecho 'Problem 2.3'

```
SELECT DISTINCT e.empid, e.empname FROM employeeDetails e, manages m,  
employeeDetails em WHERE m.eid = e.empid AND m.mid = em.empid AND e.empcity =  
em.empcity ORDER BY empid DESC;
```

\qecho 'Problem 2.4'

```
SELECT e.empname FROM employeeDetails e, company c WHERE e.compname = c.compname  
AND e.empcity <> c.complocation ORDER BY empid ASC;
```

\qecho 'Problem 2.5'

```
SELECT DISTINCT e.empid, e.empname, e.empsalary FROM employeeDetails e, manages m1,  
manages m2, jobskill j WHERE e.empid = m1.mid AND m1.eid = m2.mid AND m2.eid =  
j.empid AND j.domain = 'OperatingSystems' ORDER BY empid ASC;
```

\qecho 'Problem 2.6'

```
SELECT DISTINCT m.mid FROM manages m, manages m2 WHERE m.mid = m2.mid AND m.eid <>  
m2.eid;
```

\qecho 'Problem 2.7'

```
SELECT DISTINCT c.compname, c.complocation FROM company c WHERE NOT EXISTS (SELECT  
1 FROM employeeDetails e WHERE e.empcity = 'Chicago' AND e.empcity = 'Bloomington'  
AND e.compname = c.compname);
```

\qecho 'PROBLEM 2.8'

```
SELECT c.compname, c.complocation, e.empid FROM company c, employeeDetails e WHERE  
e.empsalary <= ALL (SELECT ep.empsalary FROM employeeDetails ep WHERE ep.compname =  
e.compname);
```

\qecho 'PROBLEM 2.9'

```
SELECT e.empid, e.empname FROM employeeDetails e EXCEPT (SELECT e.empid, e.empname  
FROM employeeDetails e, manages m, employeeDetails e2 WHERE e.empid = m.eid AND  
e2.empid = m.mid AND e2.empsalary > e.empsalary) ORDER BY empid ASC;
```

\q 'PROBLEM 2.10'

```
SELECT e.empid, e.empname FROM employeeDetails e, employeeDetails e2, jobskill j,
```

```
manages m WHERE j.domain = 'Programming' AND e.compname = 'Facebook' AND e.empid =  
m.eid AND m.mid = e2.empid AND e.empcity <> e2.empcity AND j.empid = e.empid;
```