

Table Schema:

```
emp(id: integer, name: string, age: integer, salary: double)
dept(id: integer, name: string, budget: double, manager_id: integer)
works(emp_id: integer, dept_id: integer, pct_time: integer)
```

Q.1) Create all above tables with same fields.

1.Create emp table:

```
CREATE TABLE emp(
id int,
ename string,
age int,
salary double,
primary key(id));
```

2.create dept table:

```
CREATE TABLE dept(
id int,
ename string,
budget double,
manager_id int,
primary key(id)
foreign key(manager_id) references emp(id));
```

3.create works table:

```
CREATE TABLE works(
emp_id int ,
dept_id int,
pct_time int,
foreign key(emp_id) references emp(id),
foreign key(dept_id) references dept(id));
```

Q.2) Seed Data into all tables

EMP TABLE:

```
SQL> insert into emp values(1, 'Pranjal', 21, 35000);
```

1 row created.

```
SQL> insert into emp values(2, 'Anuja', 22, 15000);
```

1 row created.

```
SQL> insert into emp values(3, 'Snehal', 20, 25000);
```

1 row created.

```
SQL> insert into emp values(4, 'rasika', 21, 30000);
```

1 row created.

```
SQL> insert into emp values(5, 'Seema', 20, 31000);
```

1 row created.

Department Table:

```
SQL> insert into department values(101, 'Software', 250000, 1);
```

1 row created.

```
SQL> insert into department values(102, 'Hardware', 15950, 5);
```

1 row created.

```
SQL> insert into department values(103, 'HR', 19000, 8);
```

1 row created.

```
SQL> insert into department values(104, 'QA', 5000, 3);
```

1 row created.

```
SQL> insert into department values(105, 'BD', 16500, 5);
```

1 row created.

Works Table:

```
SQL> insert into works values(1, 101, 10);
```

1 row created.

SQL> insert into works values(2, 103, 4);

1 row created.

SQL> insert into works values(1, 104, 6);

1 row created.

SQL> insert into works values(5, 103, 3);

1 row created.

SQL> insert into works values(3, 102, 8);

1 row created.

SQL> select * from emp;

EMP_ID	E_NAME	AGE	SALARY
1	Pranjal	21	35000
2	Anuja	22	15000
3	Snehal	20	25000
4	rasika	21	30000
5	Seema	20	31000

SQL> select * from department;

DEPT_ID	DEPT_NAME	BUDGET	MANAGER_ID
101	Software	250000	1
102	Hardware	15950	5

103 HR	19000	8
104 QA	5000	3
105 BD	16500	6

SQL> select * from works;

E_ID	D_ID	PCT_TIME
1	101	10
2	103	4
1	104	6
5	103	3
3	102	8

Q.3) Print the names and ages of each employee who works in both the Hardware department and software:

```
select e.ename, e.age from emp e
    where exists (SELECT * FROM works w INNER JOIN department d ON d
    .dept_id = w.d_id WHERE d.dept_name = 'software')
    and exists (SELECT * FROM works w INNER JOIN department d ON d.dept_id =
    w.d_id WHERE d.dept_name = 'hardware')
```

Q.4) For each department with more than 10 full-time-equivalent employees. (i.e., where the part-time and full-time employees add up to at least that many full time employees), print the work did together with the number of employees that work in that departm

```
SELECT works.dept_id, COUNT(works.emp_id) FROM Works
GROUP BY works.dept_id
HAVING 1000 < (SELECT SUM (works.pct_time)
FROM works
WHERE works.d_id = works.d_id)
```

Q.5) Find the manager_ids of managers who manage only departments with budgets greater than \$50,000 select manager_id from department

where budget > 50000

Q.6) Find the names of managers who manage the departments with the largest budgets

```
select e.emp_id, e.e_name, d.budget
```

```
from emp e JOIN dept d
```

```
on e.emp_id = d.manager_id AND d.budget > 10000
```

Q.7) Print the name of each employee whose salary exceeds the budget of all of the departments that he or she works in

```
SELECT emp.e_name FROM emp WHERE emp.salary > ALL (select Dept.budget
```

```
FROM Dept , works
```

```
WHERE Emp.emp_id = works.emp_id AND Dept.dept_id = works.dept_id)
```


