Introduction to Database Systems

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Assignment 3

1. For each branch find the number of packages received from customers and sent to customers

```
create view pack_rec as (
    select b.branchID as bID, count(p.packageID) as cnt
    from package as p
    right join branch as b on b.branchID = p.srcB
    group by b.branchID
);

create view pack_sent as (
    select b.branchID as bID, count(p.packageID) as cnt
    from package as p
    right join branch as b on b.branchID = p.dstB
    group by b.branchID
);

(
    select b.branchID,b.city,rec.cnt as pack_rec,sent.cnt as pac_sent
    from  branch as b ,pack_sent as sent, pack_rec as rec
    where b.branchID =sent.bID and
    b.branchID=rec.bID
);

drop view pack_rec;
drop view pack_sent;
```

2. list personId, name of persons where all packages sent by them undergoes at least 2 journeys

```
create view no_jour_by_cont as (
    select containerID as contId,count(journeyId) as cnt
    from assignedto
    group by containerID
    having count(journeyId)>=2
);
(
    select p.pId,p.name
    from person as p
    where not exists
        (
            select pac.packageID
            from package as pac
            where pac.sID=p.pID and
            exists
                (
                    select *
                    from no_jour_by_cont as cj
                    where cj.contID=pac.contID
                )

        )
);
drop view no_jour_by_cont;
```

3. list branchId, city, and manager name of braches where all journey initiated by them has at least 2 containers

```
create view no_cont_in_jour as
(
    select journeyID as jID,count(containerID) as cnt
    from assignedto
    group by journeyID
);

(
    select b.branchID,b.city,e.Fname as manager
    from branch as b , employee as e
    where b.manager=e.empID and
    not exists
        (
            select journeyID
            from journey as j,no_cont_in_jour as cj
            where j.sBranch=b.branchID and
            j.journeyID=cj.jID and
            cj.cnt<2

        )
);
drop view no_cont_in_jour;
```

4. list journeyId along with the total weight it carried

```
create view cont_weight as
(
    select c.containerID as cID,sum(p.weight) as wgt
    from container as c , package as p
    where c.containerID=p.contID
    group by c.containerID
) ;

(
    select a.journeyID,sum(cw.wgt) as weight
    from assignedto as a, cont_weight as cw
    where a.containerID=cw.cID
    group by a.journeyID
);

drop view cont_weight;
```

5. list empId, name of the employee who delivered maximum weighted basket

```
create view basket_weight as
(
    select b.basketID,b.branchID,b.empID as driver,sum(p.weight) as weight
    from basket as b , package as p
    where p.dstB=b.branchID and
    p.baskID=b.basketID
    group by b.basketID,b.branchID
);

create view temp as (
    select max(bw.weight) as cnt
    from basket_weight as bw
);
(
select bw.driver as empId,e.Fname
from basket_weight as bw,employee as e
where e.empID=bw.driver and
bw.weight= all
    (
        select max(bw.weight) as cnt
        from basket_weight as bw
    )
);

drop view temp;
drop view basket_weight;
```

6. for every package find the staring time and date(i.e start of first journey) and final date and time when it reached customer

```
create view delinfo as
(
    select package.packageID as packageID,journey.sDate as startDate,
    journey.sTime as startTime,basket.deliveryDate as delDate,
    package.delTime as delTime
    from package ,journey, basket, assignedto
    where package.contID=assignedto.containerID and
    assignedto.journeyID= journey.journeyID and
    journey.sBranch=package.srcB and
    basket.basketID=package.baskID and
    basket.branchID=package.dstB
);

select packageID,startDate,startTime,delDate,delTime
from delinfo;

drop view delinfo;
```