1)

create table q1(date\_inserted date,eid int,ename varchar(20))

insert into q1 values('1/1/2017',1,'a'),('1/2/2017',2,'b'),('1/3/2017',1,'c'),('1/4/2017',2,'d')

select \* from q1

;with cte1 as(select row\_number() over(partition by eid order by date\_inserted) as s\_id,\* from q1)

select a1.\*,a1.date\_inserted as startdate,isnull(a2.date\_inserted,'9999-12-31') as end\_date from cte1

a1 left join cte1 a2 on a2.s\_id-a1.s\_id=1 and a1.eid=a2.eid

/\*sid should be identity column\*/

2)

create table q2(val int)

insert into q2 values(125),(350),(270),(140)

select \* from q2

;with cte1 as(select row\_number() over(order by val) as r,\* from q2)

select isnull(a1.val,0) as lowest,a2.val as highest from cte1 a1 full join cte1 a2 on a2.r-a1.r=1

3)

create table orders(o\_id int primary key,o\_date date,cust\_id int,amt float,foreign key(cust\_id) references customer(cust\_id))

create table customer(cust\_id int primary key,cust\_name varchar(20))

insert into orders values

(1,'2008-01-01',1,108.05),

(2,'2009-01-01',2,208.05),

(3,'2008-02-12',1,10.12),

(4,'2008-12-23',3,125.05),

(5,'2009-01-02',1,198.05)

insert into customer values(1,'a'),(2,'b'),(3,'c'),(4,'d')

select \* from orders

select \* from customer

select a2.\*,sum(isnull(amt,0)) as total from customer a2 left join orders a1

on a2.cust\_id=a1.cust\_id and o\_date<'2009-01-02' group by a2.cust\_id,cust\_name

/\*o\_date greater than '2009-01-02'\*/