

code

```
create table prdt
(
prdid varchar(10) primary key,
prdnm varchar(20),
price int,
qty int,
dt_or datetime
)
insert into prdt values('p1','pencil',250,10,'01-01-2000')
insert into prdt values('p2','pen',350,2,'02-01-2000')
insert into prdt values('p3','soap',25,25,'03-01-2000')
insert into prdt values('p4','powder',50,20,'01-01-2000')
insert into prdt values('p5','bag',500,30,'03-01-2000')
select * from prdt
```

```
create table cust
(
custid int primary key,
custnm varchar(20),
custadd varchar(50),
custph bigint
)
insert into cust values(1,'anu','chennai',123654)
insert into cust values(2,'somu','mumbai',9123654)
insert into cust values(3,'namm','calcutta',8123654)
insert into cust values(4,'manu','hyderabad',7123654)
```

```
select * from cust
```

```
create table sales
```

```
(  
  custid int foreign key references cust(custid),  
  prdid varchar(10) foreign key references prdt(prdid),  
  qty int,  
  price int,  
  dt_pr datetime  
)
```

```
insert into sales values(1,'p1',1,250,'01-02-2000')
```

```
insert into sales values(1,'p2',2,250,'02-02-2000')
```

```
insert into sales values(2,'p3',3,250,'03-02-2000')
```

```
insert into sales values(3,'p1',4,1250,'01-02-2000')
```

```
select * from sales
```

```
select p.prdid, p.prdnm  
from prdt p  
left join sales s on p.prdid = s.prdid  
where s.prdid is null
```

```
select p.prdnm as most_sold_product  
from prdt p  
join (  
  select top 1 prdid
```

```
from sales
group by prdid
order by sum(qty) desc
) as most_sold on p.prdid = most_sold.prdid
```

```
select top 1 p.prdnm as most_sold_product,
       sum(s.qty * s.price) as total_cost_sold
from prdt p
join sales s on p.prdid = s.prdid
group by p.prdnm
order by total_cost_sold desc
```

```
select count(*) as products_ordered_in_jan
from prdt
where month(dt_or) = 1
```

```
select p.prdnm
from prdt p
join sales s on p.prdid = s.prdid
where year(s.dt_pr) = 2000
```

```
select c.custnm
from cust c
```

```
join (  
    select top 1 custid, sum(qty * price) as total_purchase  
    from sales  
    where month(dt_pr) = 1  
    group by custid  
    order by total_purchase desc  
) as highest_purchase on c.custid = highest_purchase.custid
```

```
select c.custnm  
from cust c  
left join (  
    select distinct custid  
    from sales  
    where month(dt_pr) = 1  
) as jan_customers on c.custid = jan_customers.custid  
where jan_customers.custid is null
```

```
select c.custnm  
from cust c  
join (  
    select custid, sum(qty * price) as total_purchase  
    from sales  
    group by custid  
) as customer_purchase on c.custid = customer_purchase.custid  
where customer_purchase.total_purchase > 4000
```