

作业

- 计算机产品数据库
 - Product(maker,model, type)
 - PC(model, speed, ram, hd, price)
 - Laptop(model, speed, ram, hd, screen, price)

Product

maker	model	type
A	1001	pc
A	1002	pc
A	2004	laptop
B	1003	pc
B	2005	laptop
C	1004	pc

PC

model	speed	ram	hd	price
1001	2.66	1024	250	2114
1002	2.10	512	250	995
1003	1.42	512	80	478
1004	2.80	1024	250	649

Laptop

model	speed	ram	hd	screen	price
2004	2.00	512	60	13.3	1150
2005	2.16	1024	120	17.0	2500

作业

- 计算机产品数据库，写出**SQL**查询语句：
 - 查询每个制造商及其生产的最低价格的笔记本型号
 - 查询生产的笔记本的硬盘容量不小于**100GB**的制造商
 - 查询生产最快速度的计算机的制造商

Product

maker	model	type
A	1001	pc
A	1002	pc
A	2004	laptop
B	1003	pc
B	2005	laptop
C	1004	pc

PC

model	speed	ram	hd	price
1001	2.66	1024	250	2114
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Laptop

model	speed	ram	hd	screen	price
2004	2.00	512	60	13.3	1150
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- 查询每个制造商及其生产的最低价格的笔记本型号
 - 查询制造商maker生产的笔记本的最低价格

select min(Laptop.price)

from Product, Laptop

where Product.model = Laptop.model and

Product.maker = maker

查询每个制造商及其生产的最低价格的笔记本型号（难点：相关嵌套子查询）

```
select P1.maker, P1.model
from Product P1, Laptop L1
where P1.model = L1.model
      and L1.price = select min(L2.price)
                      from Product P2, Laptop L2
                      where P2.model = L2.model
                        and P2.maker = P1.maker
```

查询生产的笔记本的硬盘容量不
小于**100GB**的制造商

```
select distinct Product.maker  
from Product, Laptop  
where Product.model = Laptop.model and  
Laptop.hd >= 100
```

查询生产最快速度的PC的制造商

```
select DISTINCT P.maker
from Product P
where P.model in (
    select PC.model
    from PC
    where PC.speed = (
        select MAX(PC1.speed)
        from PC1
    )
)
```

Product

maker	model	type
A	1001	pc
A	1002	pc
A	2004	laptop
B	1003	pc
B	2005	laptop
C	1004	pc

PC

model	speed	ram	hd	price
1001	2.66	1024	250	2114
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Laptop

model	speed	ram	hd	screen	price
2004	2.00	512	60	13.3	1150
2005	2.16	1024	120	17.0	2500

- 查询生产最快速度的计算机的制造商
 - 查询所有计算机（包括PC和笔记本）的型号和速度

```
select PC.model, PC.speed
from PC
UNION
select LP.model, LP.speed
from Laptop LP
```

查询生产最快速度的计算机的制造商

```
select DISTINCT P.maker
from Product P
where P.model in (
    select Computer.model
    from Computer
    where Computer.speed = (
        select MAX(Computer1.speed)
        from Computer1
    )
)
```


查询生产最快速度的计算机的制造商

```
select DISTINCT P.maker
from Product P
where P.model in (
    select Computer.model
    from (select PC.model, PC.speed
          from PC
          UNION
          select LP.model, LP.speed
          from Laptop LP) AS Computer
    where Computer.speed = (
        select MAX(Computer1.speed)
        from (select PC1.model, PC1.speed
              from PC PC1
              UNION
              select Lp1.model, Lp1.speed
              from Laptop Lp1) AS Computer1)
)
```