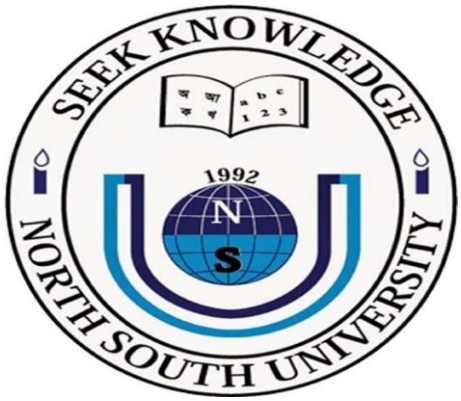

North South University

Department of Electrical & Computer Engineering

Course Code: CSE311

Course Title: Database Systems

Course Instructor: **Nadeem Ahmed**

Section: 07

Submitted by

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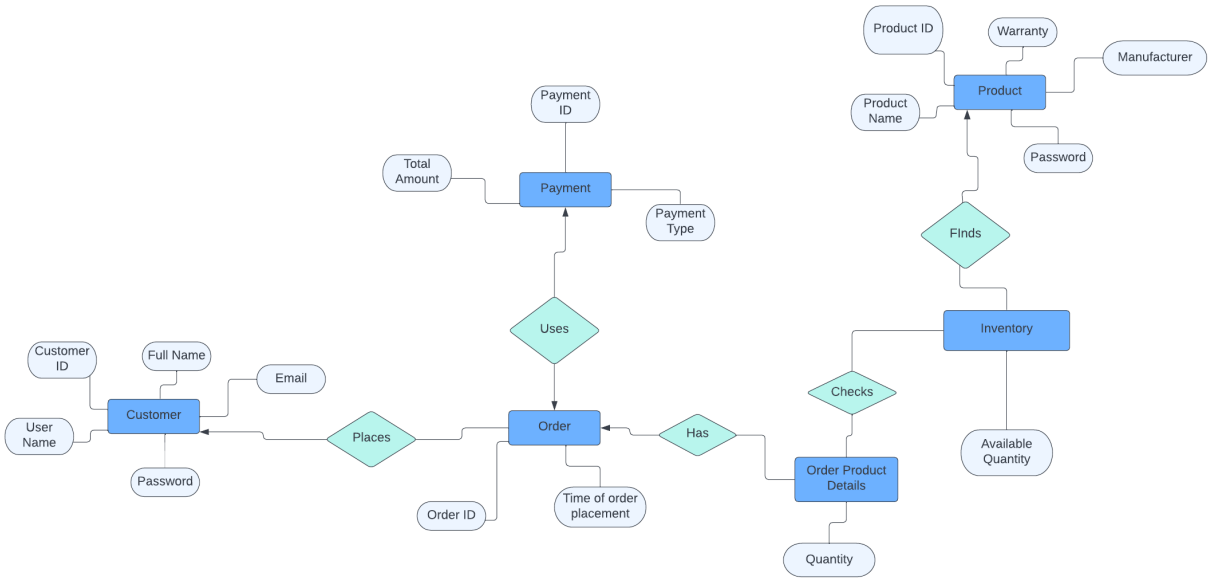
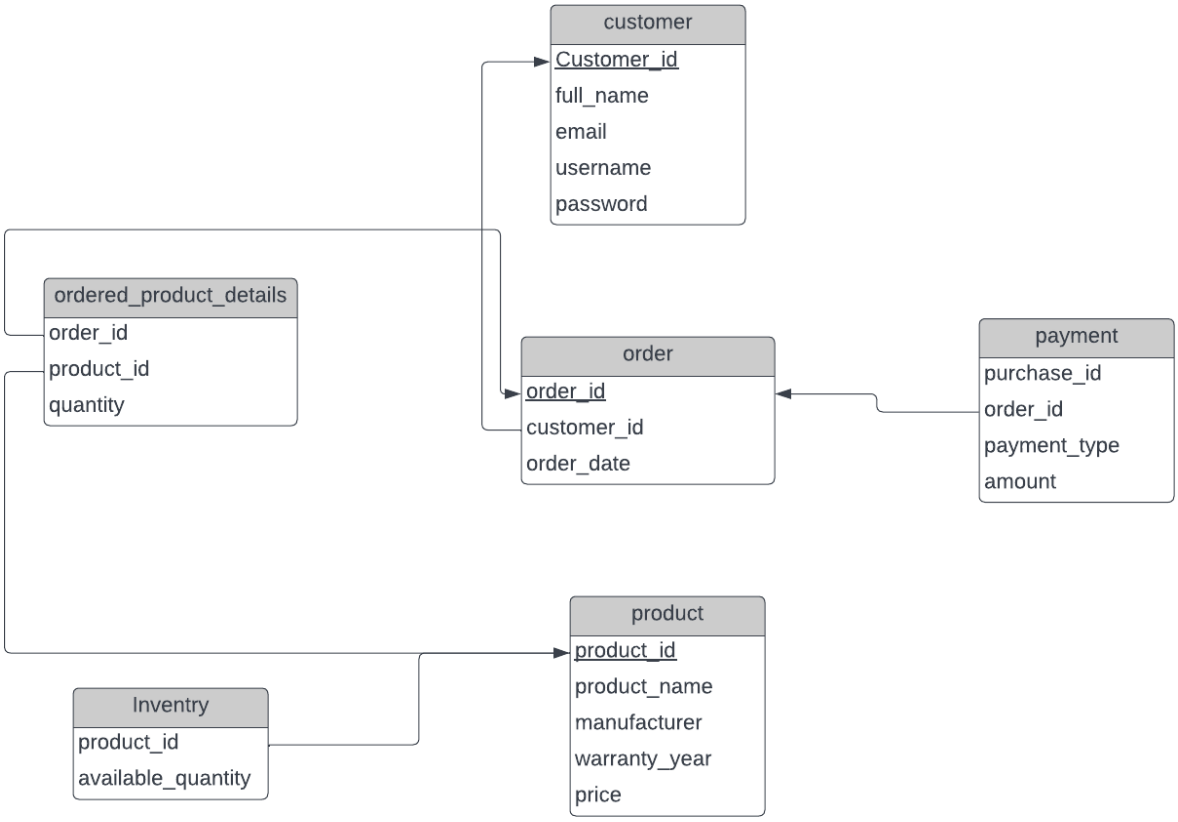
Online Computer component Store

An online computer component store has all the available products to built up a computer. It has an inventory where it stores all of its products. The customer can choose their desire product from the inventory. The inventory consists of a product id, and the quantity available of that particular product. By using the product id it can be send to the product details. Details of the product such as the name of the product, the name of the manufacturer, warranty time given for the particular product , and the price of that particular product. Customers can order their desired products online. Customer details are mandatory for the process. Customer details are customer id, his/her full name, email address, username for login, and a secure password. They can place an order by mentioning the specific product with the quantity they need. They can add multiple products with different quantities. After confirming their order they have to go through the payment process where they have to select their payment method, whether it's cash-on-delivery, credit card, or mobile payment to pay the total amount of their order.

E-R diagram



Schema Diagram



Database:

```
create table customer
(
customer_id int primary key,
full_name varchar(20),
email varchar(30),
username varchar(20),
password varchar(30)
)

create table order_product
(
order_id int primary key,
customer_id int,
order_date date
constraint order_fk foreign key (customer_id) references [dbo].[customer]([customer_id])
ON UPDATE CASCADE
ON DELETE CASCADE
)

create table product
(
product_id int primary key,
```

```
product_name varchar(30),
manufacturer varchar(30),
warranty_year int,
price varchar(10)
)

create table payment
(
purchase_id int,
order_id int,
payment_type varchar(20),
amount int
constraint payment_fk foreign key (order_id) references [dbo].[order_product]([order_id])
ON UPDATE CASCADE
ON DELETE CASCADE,
);

create table ordered_product_details
(
order_id int,
product_id int,
quantity smallint,
primary key(order_id,product_id),
constraint ordered_product_details_fk foreign key (order_id) references
[dbo].[order_product]([order_id])
ON UPDATE CASCADE
ON DELETE CASCADE,
constraint ordered_product_details_fk1 foreign key (product_id) references
[dbo].[product]([product_id])
ON UPDATE CASCADE
ON DELETE CASCADE,
)

create table inventory
(
product_id int,
available_quantity int
constraint inventory_fk foreign key (product_id) references [dbo].[product]([product_id])
ON UPDATE CASCADE
ON DELETE CASCADE
)




insert into customer values
('1','Arham Chowdhury','arham@gmail.com','arham1218','msd2020'),
('2','Anis Chowdhury','anis@gmail.com','anis00','msd1999'),
('3','Ania Khan','ania@gmail.com','ania1212','msd0000'),
('4','Ronaldo Rahim','ronaldo@gmail.com','ron111','msd8888'),
('5','Lionel Messi','messi@gmail.com','messi777','msd777'),
('6','Sergio Ramos','sergio@gmail.com','sergio','msd989'),
('7','Chris Gayle','chris@gmail.com','chris000','msd444'),
('8','Ruhul Amin','ruhul@gmail.com','ruhul11','msd2222'),
('9','Abed Gazi','abed@gmail.com','abed','msd77788'),
('10','Tanzil Gazi','tazil@gmail.com','tanzil778','msd6655')

select * from customer
```

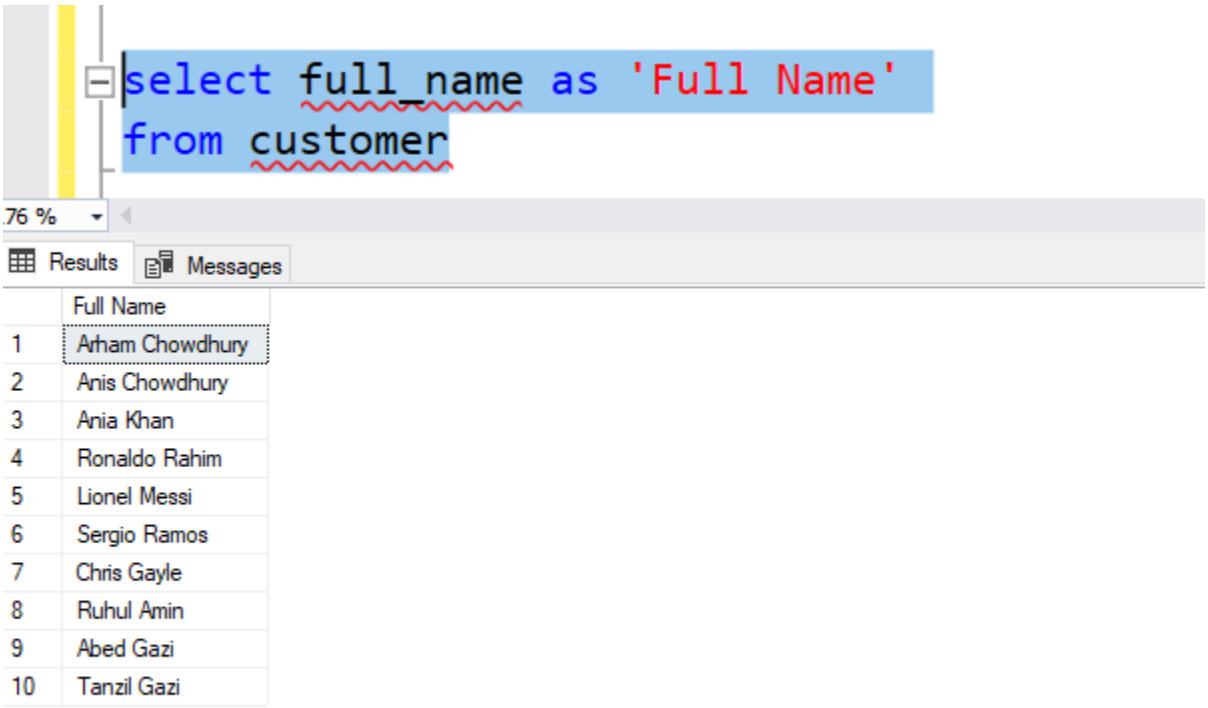
```sql
insert into order_product values
('101','2','2017-08-19'),
('201','2','2014-02-01'),
('301','3','2013-08-02'),
('401','4','2011-06-20'),
('501','5','2022-05-12'),
('601','5','2014-07-29'),
('701','7','2016-02-22'),
('801','6','2016-05-05'),
('901','1','2016-02-11'),
('1001','2','2016-03-11')

select * from order_product

insert into product values
('401','B450 Motherboard','ASRock','3','30000'),
('402','keyboard','Gigabyte Technology','1','20000'),
('403','Headphone','Gigabyte Technology','1','40000'),
('404','Power supply','Gigabyte Technology','5','546000'),
('405','Mortar Max','MSI','3','120000'),
('406','Cpu-cooler','Deepcool','1','40000'),
('407','Mouse','Dell','1','60000'),
('408','Power supply','Antec','7','30000'),
('409','1650 super','Nvidia','5','140000'),
('410','1660 super','Nvidia','5','35000')

select * from product


insert into ordered_product_details values
('101','401','3'),
('301','402','4'),
('701','403','2'),
('501','403','1'),
('201','402','4'),
('301','407','2'),
('401','405','2'),
('601','406','3'),
('901','407','4'),
('801','407','1')

select * from ordered_product_details

insert into inventory
values
('401','7'),
('402','55'),
('403','12'),
('404','13'),
('405','45'),
('406','50'),
('407','225'),
('408','13'),
('409','3'),
('410','4')
```

```
select * from inventory

insert into payment values
('1','101','Cash','2500'),
('2','201','Bkash','7000'),
('3','301','Card','8000'),
('4','401','Cash','9000'),
('5','501','Cash','78000'),
('6','601','Cash','1200'),
('7','701','Bkash','1600'),
('8','801','Bkash','13000'),
('9','901','Card','3000')

select * from payment
```

Queries:

1. In this query we will rename the full_name to Full Name

```
select full_name as 'Full Name'
from customer
```



	Full Name
1	Arham Chowdhury
2	Anis Chowdhury
3	Ania Khan
4	Ronaldo Rahim
5	Lionel Messi
6	Sergio Ramos
7	Chris Gayle
8	Ruhul Amin
9	Abed Gazi
10	Tanzil Gazi

2. All the distinct manufacturer will be shown in the manufacture column.

```
select distinct manufacturer
from product
```

```
select distinct manufacturer
from product
```

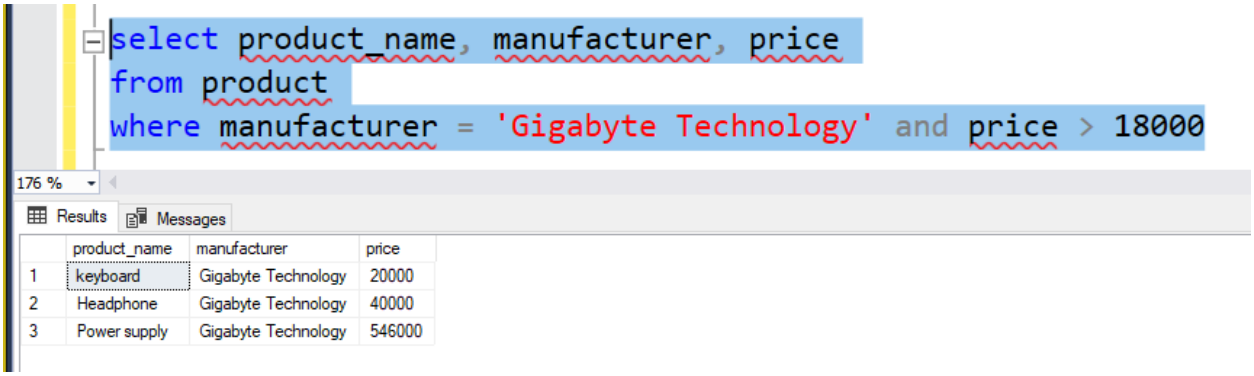
176 %

Results | Messages

	manufacturer
1	Antec
2	ASRock
3	Deepcool
4	Dell
5	Gigabyte Technology
6	MSI
7	Nvidia

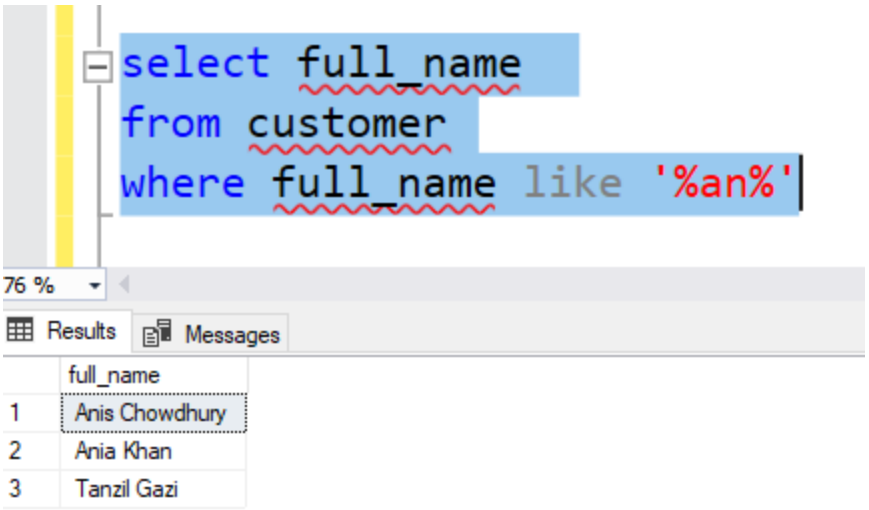
3. In this query it will show the products and prices of the products which are manufacture by Gigabyte Technology.

```
select product_name, manufacturer, price
from product
where manufacturer = 'Gigabyte Technology' and price > 18000
```



4. In this query, it displays the names of all drivers whose full name includes the substring “an”.

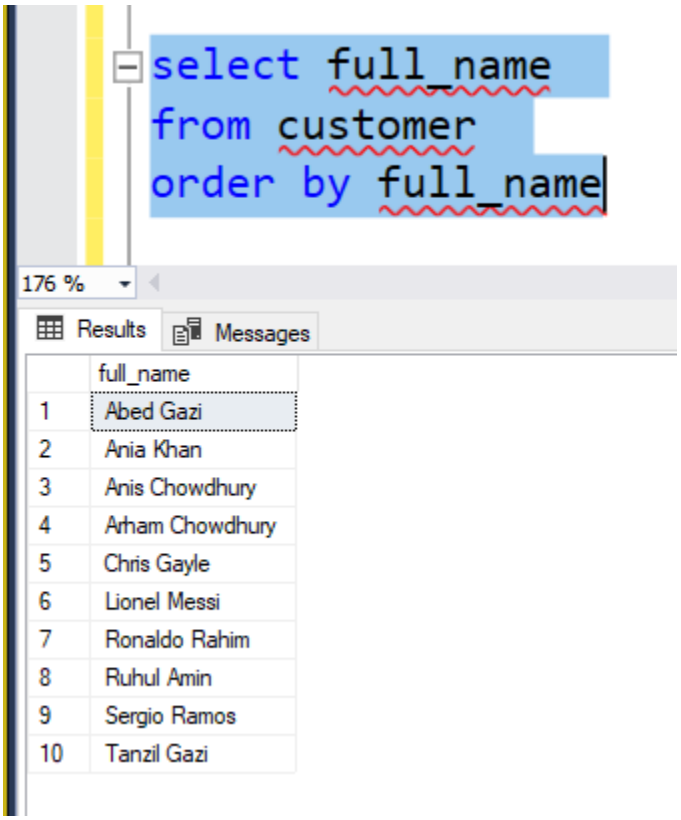
```
select full_name
from customer
where full_name like '%an%'
```



	full_name
1	Anis Chowdhury
2	Ania Khan
3	Tanzil Gazi

5. In this query, it will display the full name of the drivers in alphabetical order of their full name.

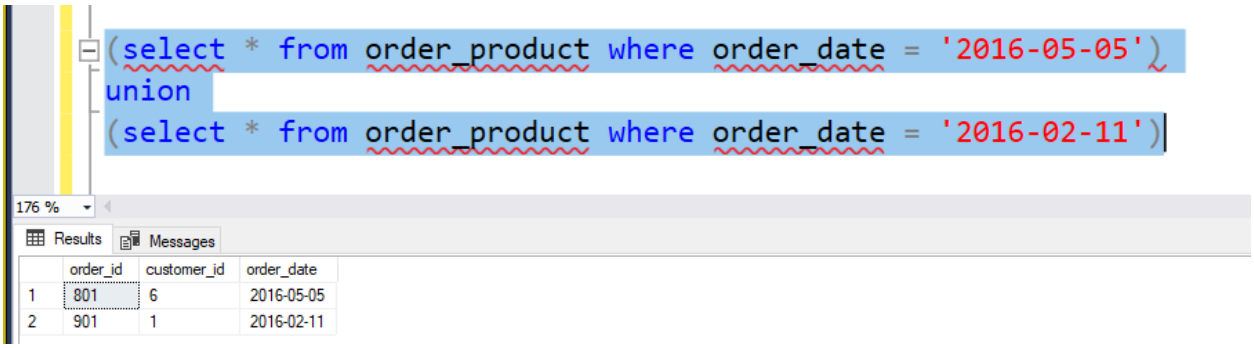
```
select full_name
from customer
order by full_name
```



	full_name
1	Abed Gazi
2	Ania Khan
3	Anis Chowdhury
4	Arham Chowdhury
5	Chris Gayle
6	Lionel Messi
7	Ronaldo Rahim
8	Ruhul Amin
9	Sergio Ramos
10	Tanzil Gazi

6. In this query it will display employee information who joined at 5th May, 2016 and 2nd Feb, 2016 (Set Operation)

```
(select * from order_product where order_date = '2016-05-05')
union
(select * from order_product where order_date = '2016-02-11')
```



```
(select * from order_product where order_date = '2016-05-05')
union
(select * from order_product where order_date = '2016-02-11')
```

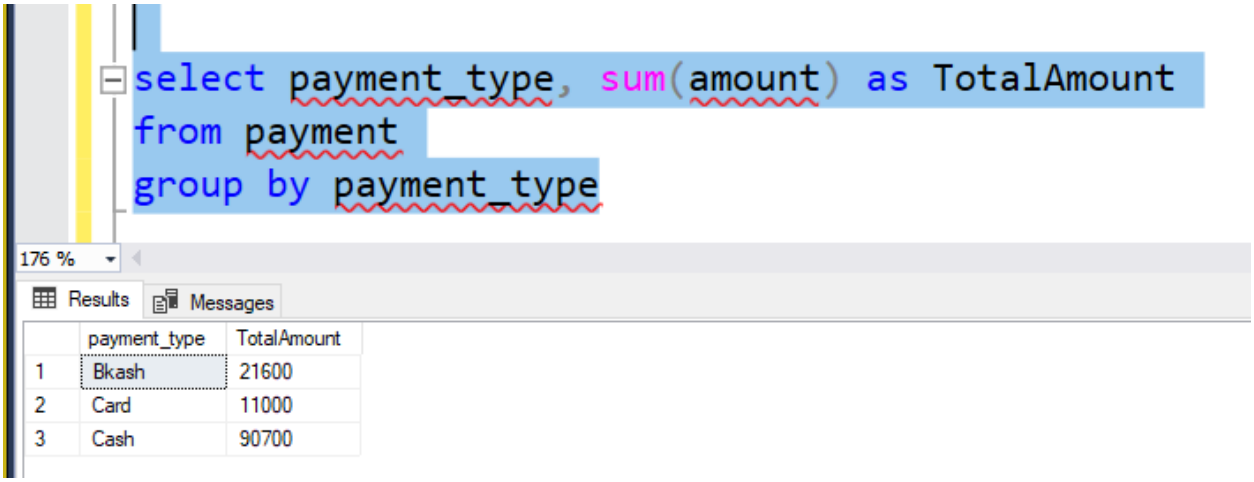
176 %

Results | Messages

	order_id	customer_id	order_date
1	801	6	2016-05-05
2	901	1	2016-02-11

7. In this query it will show the total money received through cash, Bkash, card which customer has paid.

```
select payment_type, sum(amount) as TotalAmount
from payment
group by payment_type
```



```
select payment_type, sum(amount) as TotalAmount
from payment
group by payment_type
```

176 %

Results | Messages

	payment_type	TotalAmount
1	Bkash	21600
2	Card	11000
3	Cash	90700

8. Deleting the row where product name = keyboard

```
delete from product
where product_name = 'keyboard'
```

176 %

Results | Messages

	product_id	product_name	manufacturer	warranty_year	price
1	401	B450 Motherboard	ASRock	3	30000
2	403	Headphone	Gigabyte Technology	1	40000
3	404	Power supply	Gigabyte Technology	5	546000
4	405	Mortar Max	MSI	3	120000
5	406	Cpu-cooler	Deepcool	1	40000
6	407	Mouse	Dell	1	60000
7	408	Power supply	Antec	7	30000
8	409	1650 super	Nvidia	5	140000
9	410	1660 super	Nvidia	5	35000