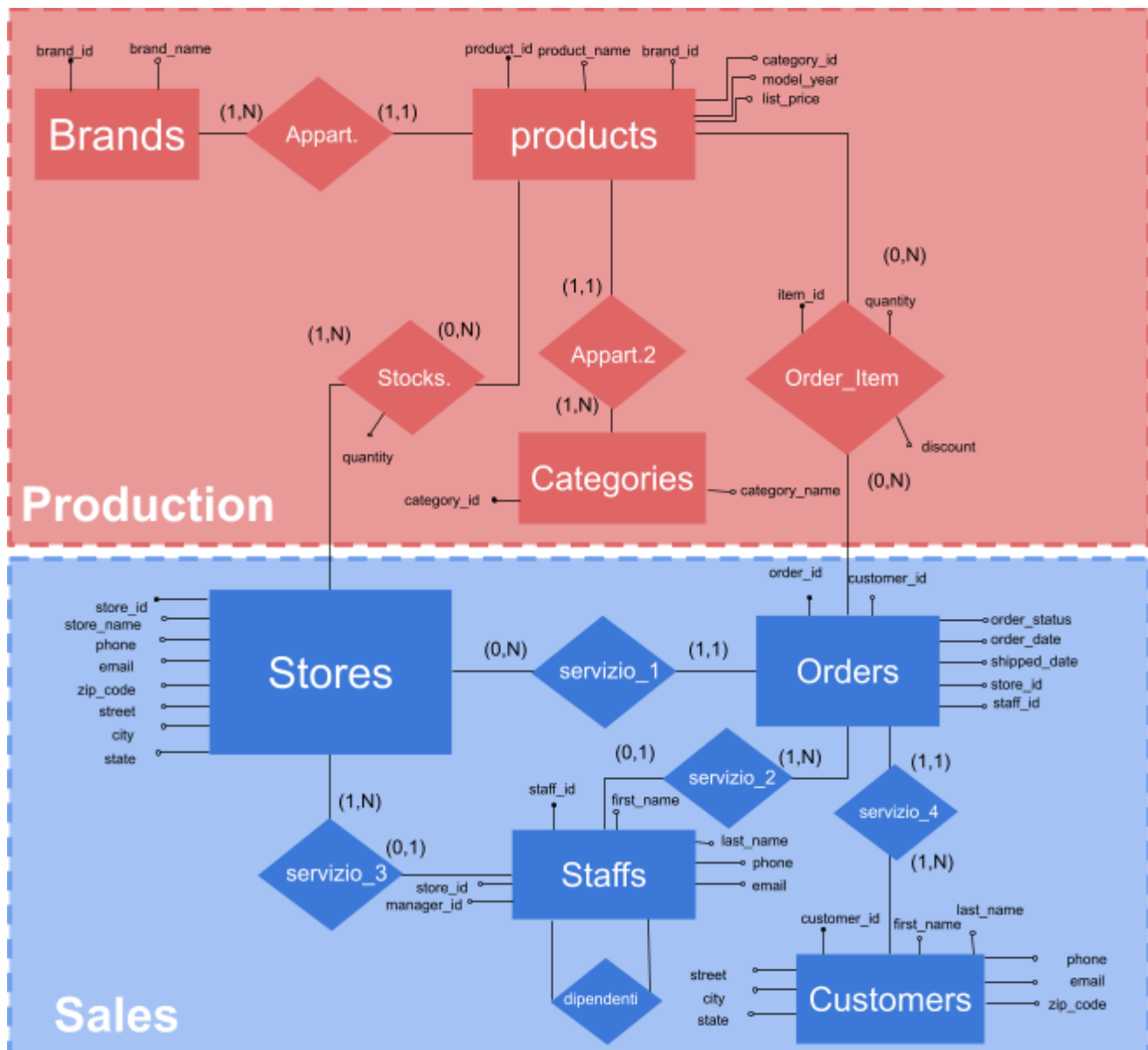schema entità/relazione database



modello logico

Brands {brand_id , brand_name
Products {product_id , product_name, brand_id ,
category_id ,model_year , list_price
Categories { category_id , category_name
Stores { store_id , store_name, phone, email,
zip_code,street,city, state
Orders {order_id , customer_id , order_date,
shipped_date, store_id, staff_id
Staffs { staff_id, first_name,
last_name,phone,email,store_id,manager_id
Customers {customer_id, first_name,
last_name,phone,email,zip_code,street,city,state

query sql:

**Quando si vuole scrivere una query i passaggi sono i seguenti:**
**1-individuare in quale tabelle si trovano le informazioni**
**se le informazioni sono in più tabelle,devo fare una join individuando i campi che hanno in relazione**
**2- visualizzare i campi richiesti dal testo all'interno della select(SELEZIONE VERTICALE, PRENDO SOLO ALCUNI CAMPI E COLONNE)**
**3-se non sono necessari tutti i record ma solo alcuni, utilizzare la clausola WHERE(SELEZIONE ORIZZONTALE, PRENDO ALCUNI RECORD O RIGHE DELLA TABELLA)**

1. i nomi dei brand
```
select brand_name from production.brands
```

| | brand_name |
|---|---|
| 1 | Electra |
| 2 | Haro |
| 3 | Heller |
| 4 | Pure Cycles |
| 5 | Ritchey |
| 6 | Strider |
| 7 | Sun Bicycles |
| 8 | Surly |
| 9 | Trek |

2. i nomi dei prodotti con il brand
```
SELECT product_name, brand_name
FROM production.products INNER JOIN production.brands
ON production.brands.brand_id = production.products.brand_id
```

| | product_name | brand_name |
|---|---|---|
| 1 | Trek 820 - 2016 | Trek |
| 2 | Ritchey Timberwolf Frameset - 2016 | Ritchey |
| 3 | Surly Wednesday Frameset - 2016 | Surly |
| 4 | Trek Fuel EX 8 29 - 2016 | Trek |
| 5 | Heller Shagamaw Frame - 2016 | Heller |
| 6 | Surly Ice Cream Truck Frameset - 2016 | Surly |
| 7 | Trek Slash 8 27.5 - 2016 | Trek |
| 8 | Trek Remedy 29 Carbon Frameset - 2016 | Trek |
| 9 | Trek Conduit+ - 2016 | Trek |
| 10 | Surly Straggler - 2016 | Surly |
| 11 | Surly Straggler 650b - 2016 | Surly |
| 12 | Electra Townie Original 21D - 2016 | Electra |
| 13 | Electra Cruiser 1 (24-Inch) - 2016 | Electra |
| 14 | Electra Girl's Hawaii 1 (16-inch) - 2015/2016 | Electra |
| 15 | Electra Moto 1 - 2016 | Electra |
| 16 | Electra Townie Original 7D EQ - 2016 | Electra |
| 17 | Pure Cycles Vine 8-Speed - 2016 | Pure Cycles |
| 18 | Pure Cycles Western 3-Speed - Women's - 2015/2016 | Pure Cycles |
| 19 | Pure Cycles William 3-Speed - 2016 | Pure Cycles |

3. i nomi dei prodotti con il brand e la categoria a cui appartiene il prodotto

```
SELECT product_name, brand_name, category_name
FROM production.products INNER JOIN production.brands
ON production.brands.brand_id = production.products.brand_id
INNER JOIN production.categories
on production.categories.category_id = production.products.category_id
```

| | product_name | brand_name | category_name |
|---|---|---|---|
| 1 | Trek 820 - 2016 | Trek | Mountain Bikes |
| 2 | Ritchey Timberwolf Frameset - 2016 | Ritchey | Mountain Bikes |
| 3 | Surly Wednesday Frameset - 2016 | Surly | Mountain Bikes |
| 4 | Trek Fuel EX 8 29 - 2016 | Trek | Mountain Bikes |
| 5 | Heller Shagamaw Frame - 2016 | Heller | Mountain Bikes |
| 6 | Surly Ice Cream Truck Frameset - 2016 | Surly | Mountain Bikes |
| 7 | Trek Slash 8 27.5 - 2016 | Trek | Mountain Bikes |
| 8 | Trek Remedy 29 Carbon Frameset - 2016 | Trek | Mountain Bikes |
| 9 | Trek Conduit+ - 2016 | Trek | Electric Bikes |
| 10 | Surly Straggler - 2016 | Surly | Cyclocross Bicycles |
| 11 | Surly Straggler 650b - 2016 | Surly | Cyclocross Bicycles |
| 12 | Electra Townie Original 21D - 2016 | Electra | Cruisers Bicycles |
| 13 | Electra Cruiser 1 (24-Inch) - 2016 | Electra | Cruisers Bicycles |
| 14 | Electra Girl's Hawaii 1 (16-inch) - 2015/2016 | Electra | Cruisers Bicycles |
| 15 | Electra Moto 1 - 2016 | Electra | Cruisers Bicycles |
| 16 | Electra Townie Original 7D EQ - 2016 | Electra | Cruisers Bicycles |
| 17 | Pure Cycles Vine 8-Speed - 2016 | Pure Cycles | Cruisers Bicycles |
| 18 | Pure Cycles Western 3-Speed - Women's - 2015/2016 | Pure Cycles | Cruisers Bicycles |
| 19 | Pure Cycles William 3-Speed - 2016 | Pure Cycles | Cruisers Bicycles |

### 4. i nomi dei prodotti con le quantità disponibili in stock

```sql
SELECT product_name, quantity
FROM production.products INNER JOIN production.stocks
ON production.products.product_id = production.products.product_id
```

| | product_name | quantity |
|---|---|---|
| 1 | Trek 820 - 2016 | 27 |
| 2 | Trek 820 - 2016 | 5 |
| 3 | Trek 820 - 2016 | 6 |
| 4 | Trek 820 - 2016 | 23 |
| 5 | Trek 820 - 2016 | 22 |
| 6 | Trek 820 - 2016 | 0 |
| 7 | Trek 820 - 2016 | 8 |
| 8 | Trek 820 - 2016 | 0 |
| 9 | Trek 820 - 2016 | 11 |
| 10 | Trek 820 - 2016 | 15 |
| 11 | Trek 820 - 2016 | 8 |
| 12 | Trek 820 - 2016 | 16 |
| 13 | Trek 820 - 2016 | 13 |
| 14 | Trek 820 - 2016 | 8 |
| 15 | Trek 820 - 2016 | 3 |
| 16 | Trek 820 - 2016 | 4 |
| 17 | Trek 820 - 2016 | 2 |
| 18 | Trek 820 - 2016 | 16 |
| 19 | Trek 820 - 2016 | 4 |

### 5. i nomi dei prodotti che hanno uno stock superiore a 10

```sql
select product_name, quantity
from production.products inner join production.stocks
on production.products.product_id = production.stocks.product_id
where production.stocks.quantity >= 10
```

| | product_name | quantity |
|---|---|---|
| 1 | Trek 820 - 2016 | 27 |
| 2 | Trek 820 - 2016 | 14 |
| 3 | Trek 820 - 2016 | 14 |
| 4 | Ritchey Timberwolf Frameset - 2016 | 24 |
| 5 | Ritchey Timberwolf Frameset - 2016 | 16 |
| 6 | Surly Wednesday Frameset - 2016 | 28 |
| 7 | Trek Fuel EX 8 29 - 2016 | 23 |
| 8 | Trek Fuel EX 8 29 - 2016 | 11 |
| 9 | Heller Shagamaw Frame - 2016 | 22 |
| 10 | Surly Ice Cream Truck Frameset - 2016 | 11 |

### 6. i nomi dei prodotti che hanno uno stock compreso tra 5 e 10

```sql
select product_name, quantity
from production.products inner join production.stocks
on production.products.product_id = production.stocks.product_id
where production.stocks.quantity between 5 and 10
```

| | product_name | quantity |
|---|---|---|
| 1 | Ritchey Timberwolf Frameset - 2016 | 5 |
| 2 | Surly Wednesday Frameset - 2016 | 6 |
| 3 | Trek Slash 8 27.5 - 2016 | 8 |
| 4 | Trek Slash 8 27.5 - 2016 | 8 |
| 5 | Surly Straggler 650b - 2016 | 8 |
| 6 | Electra Girl's Hawaii 1 (16-inch) - 2015/2016 | 8 |
| 7 | Electra Moto 1 - 2016 | 6 |
| 8 | Pure Cycles Western 3-Speed - Women's - 2015/2016 | 5 |
| 9 | Electra Cruiser 1 (24-Inch) - 2016 | 8 |
| 10 | Electra Girl's Hawaii 1 (20-inch) - 2015/2016 | 8 |
| 11 | Electra Girl's Hawaii 1 (20-inch) - 2015/2016 | 9 |
| 12 | Electra Townie Original 21D - 2016 | 10 |

7. i nomi dei prodotti che hanno uno stock compreso tra 5 e 10 e che costano meno di 300 $

```sql
select product_name, quantity,list_price
from production.products inner join production.stocks
on production.products.product_id = production.stocks.product_id
where production.stocks.quantity between 5 and 10 AND
production.products.list_price <= 300
```

| | product_name | quantity | list_price |
|---|---|---|---|
| 1 | Electra Girl's Hawaii 1 (16-inch) - 2015/2016 | 8 | 269.99 |
| 2 | Electra Cruiser 1 (24-Inch) - 2016 | 8 | 269.99 |
| 3 | Electra Girl's Hawaii 1 (20-inch) - 2015/2016 | 8 | 299.99 |
| 4 | Electra Girl's Hawaii 1 (20-inch) - 2015/2016 | 9 | 299.99 |
| 5 | Sun Bicycles Revolutions 24 - Girl's - 2017 | 8 | 250.99 |
| 6 | Sun Bicycles Revolutions 24 - Girl's - 2017 | 6 | 250.99 |
| 7 | Trek Precaliber 12 Girls - 2017 | 8 | 189.99 |
| 8 | Trek Precaliber 12 Girls - 2017 | 7 | 189.99 |
| 9 | Trek Precaliber 16 Boys - 2017 | 9 | 209.99 |
| 10 | Trek Precaliber 16 Boys - 2017 | 8 | 209.99 |
| 11 | Trek Precaliber 16 Girls - 2017 | 9 | 209.99 |
| 12 | Haro Shredder Pro 20 - 2017 | 6 | 249.99 |
| 13 | Electra Girl's Hawaii 1 16" - 2017 | 10 | 299.99 |
| 14 | Electra Cruiser 1 - 2016/2017/2018 | 10 | 269.99 |
| 15 | Electra Cruiser 1 - 2016/2017/2018 | 10 | 269.99 |
| 16 | Electra Cruiser 1 Ladies' - 2018 | 6 | 269.99 |
| 17 | Trek MT 201 - 2018 | 8 | 249.99 |
| 18 | Trek MT 201 - 2018 | 6 | 249.99 |
| 19 | Strider Sport 16 - 2018 | 7 | 249.99 |
| 20 | Trek Precaliber 16 Boy's - 2018 | 6 | 209.99 |

8. i nomi dei prodotti che hanno la parola "Cruiser" nel nome

```sql
select product_name
from production.products
where product_name like '%Cruiser%'
```

| | product_name |
|---|---|
| 1 | Electra Cruiser 1 (24-Inch) - 2016 |
| 2 | Electra Cruiser 1 (24-Inch) - 2016 |
| 3 | Electra Cruiser Lux 1 - 2017 |
| 4 | Electra Cruiser Lux Fat Tire 1 Ladies - 2017 |
| 5 | Electra Cruiser 1 - 2016/2017/2018 |
| 6 | Electra Cruiser 7D - 2016/2017/2018 |
| 7 | Electra Cruiser 1 Ladies' - 2018 |
| 8 | Electra Cruiser 7D Ladies' - 2016/2018 |
| 9 | Electra Cruiser 1 Tall - 2016/2018 |
| 10 | Electra Cruiser Lux 3i - 2018 |
| 11 | Electra Cruiser Lux 7D - 2018 |
| 12 | Electra Cruiser 7D (24-Inch) Ladies' - 2016/2018 |
| 13 | Electra Cruiser 7D Tall - 2016/2018 |
| 14 | Electra Cruiser Lux 1 - 2016/2018 |
| 15 | Electra Cruiser Lux 1 Ladies' - 2018 |
| 16 | Electra Cruiser Lux 3i Ladies' - 2018 |
| 17 | Electra Cruiser Lux 7D Ladies' - 2018 |
| 18 | Electra Cruiser Lux Fat Tire 7D - 2018 |
| 19 | Electra Cruiser 7D (24-Inch) Ladies' - 2016/2018 |

9. i nomi dei prodotti che non hanno la parola "Cruiser" nel nome
select product_name
from production.products
where product_name not like '%Cruiser%'

| | product_name |
|---|---|
| 1 | Trek 820 - 2016 |
| 2 | Ritchey Timberwolf Frameset - 2016 |
| 3 | Surly Wednesday Frameset - 2016 |
| 4 | Trek Fuel EX 8 29 - 2016 |
| 5 | Heller Shagamaw Frame - 2016 |
| 6 | Surly Ice Cream Truck Frameset - 2016 |
| 7 | Trek Slash 8 27.5 - 2016 |
| 8 | Trek Remedy 29 Carbon Frameset - 2016 |
| 9 | Trek Conduit+ - 2016 |
| 10 | Surly Straggler - 2016 |
| 11 | Surly Straggler 650b - 2016 |
| 12 | Electra Townie Original 21D - 2016 |
| 13 | Electra Girl's Hawaii 1 (16-inch) - 2015/2016 |
| 14 | Electra Moto 1 - 2016 |
| 15 | Electra Townie Original 7D EQ - 2016 |
| 16 | Pure Cycles Vine 8-Speed - 2016 |
| 17 | Pure Cycles Western 3-Speed - Women's - 2015/2016 |
| 18 | Pure Cycles William 3-Speed - 2016 |
| 19 | Electra Townie Original 7D EQ - Women's - 2016 |