

Platform of Walmart

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Why Walmart?

- Large retail corporation
- Typical online store
- Large number of users
- Complete functional website



Why These Functions Important?

Register

Track order

Change address

Customer information

Search

Find my local store

Customer service

Trends

Select one category from one department

Easier to shopping online

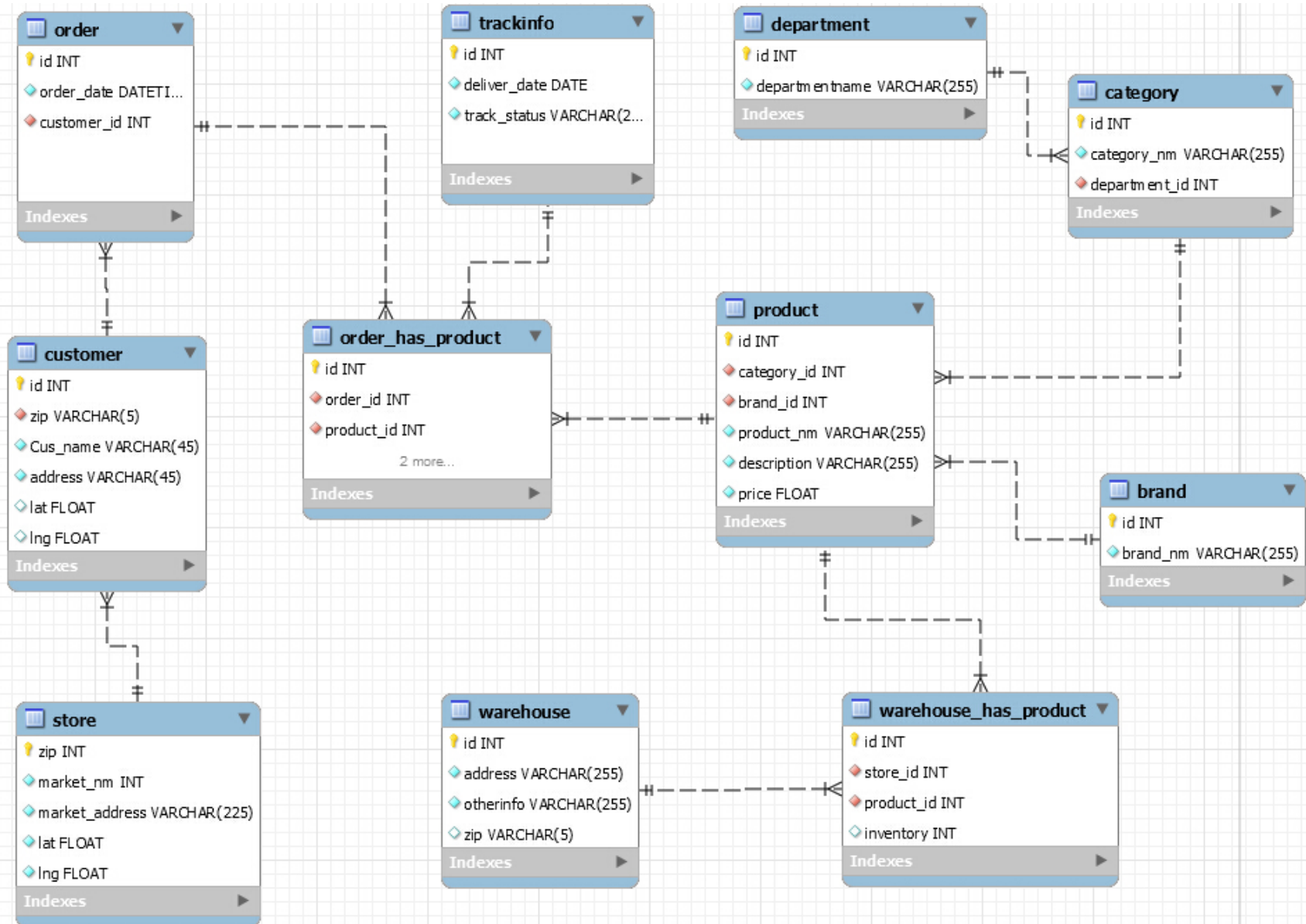
Multiple filters

Store availability

Price: low to high

Product information

ER Model



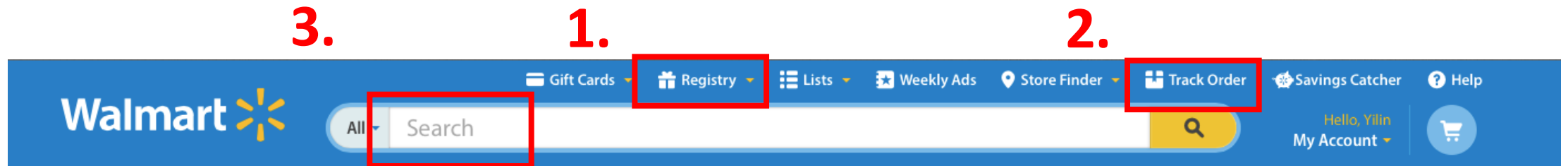
Create Tables

```
1 • create database if not exists walmart;
2 • use walmart;
3
4 • create table ordernum (id int(4) not null, customer_id int not null, order_date datetime not null);
5 • create table customer (id int not null, zip varchar(5) not null, cus_name varchar(45) not null,
6   address varchar(100) not null, lat float, lng float);
7 • create table trackinfo (id int not null, deliver_date date not null, track_status varchar(255) not null);
8 • create table order_has_product (id int not null, order_id int not null, product_id int not null,
9   trackinfo_id int not null, quantity int);
10 • create table store (zip varchar(5) not null, market_nm int not null, market_address varchar(255) not null,
11   lat float not null, lng float not null);
12 • create table department (id int not null, departmentname varchar(255));
13 • create table category (id int not null, category_nm varchar(255) not null, department_id int not null);
14 • create table product (id int not null, category_id int not null, brand_id int not null, product_nm varchar(255)
15   not null, description varchar(255) not null, price float not null);
16 • create table brand (id int not null, brand_nm varchar(255) not null);
17 • create table warehouse_has_product (id int not null, store_id int not null, product_id int not null, inventory int);
18 • create table warehouse (id int not null, address varchar(255) not null, otherinfo varchar(255) not null, zip varchar(5));
```

10 Functions

- Register
- Track order
- Search
- Find my local store
- Trends
- Change address
- Select one category from one department
- Store availability
- Price: low to high
- Multiple filters

Function



1. `INSERT INTO customer
values (40007, '07310', 'Jane', '185 12th St Jersey City, NJ', 40.7296379, -74.0409819);`

2. `SELECT ordernum.id, order_has_product.order_id, trackinfo.id, trackinfo.deliver_date, trackinfo.track_status
FROM customer, ordernum, order_has_product, trackinfo
WHERE customer.id = ordernum.customer_id and ordernum.id = order_has_product.order_id
and order_has_product.id = trackinfo.id and customer.id = 400001;`

3. `SELECT product_nm, description, price
FROM product
WHERE description like "%beef%" or product_nm like "%beef%";`

Function

All Departments **4.** **My Local Store** **Trending** Value of the Day **5.** Top 100 gifts ship free to your door

| id | zip | Cus_name | address | lat | lng |
|--------|-------|----------|----------------------------------|-----------|------------|
| 400001 | 07307 | Sam | 433 New York Ave Jersey City, NJ | 40.750932 | -74.041206 |

4.

```
SELECT market_nm,market_address,zip, ( 3959 * acos( cos( radians(40.750932) ) * cos( radians( lat ) ) *  
cos( radians( lng ) - radians(-74.041206) ) + sin( radians(40.750932) )  
* sin( radians( lat ) ) ) ) AS distance  
FROM store  
HAVING distance < 4.3  
ORDER BY distance LIMIT 0 , 1;
```

Address Book

Ship to Home Addresses

You will be able to select from these :

[ADD A NEW ADDRESS](#)

Preferred shipping address:

Yilin Wei
1st Floor, 417 Ogden Ave
Jersey City, NJ 07307
(201) 706-1136

6. [EDIT](#) [DELETE](#)

[Remove as Preferred Shipping Address](#)

5.

```
select product_nm,description,price,product_id from product,order_has_product  
where product.id=order_has_product.product_id group by product_id  
having sum(quantity) limit 2;
```

6.

```
UPDATE customer  
SET zip = '07030', address = '133 Hudson Ave Hoboken, NJ'  
WHERE id = 400001;
```


Function

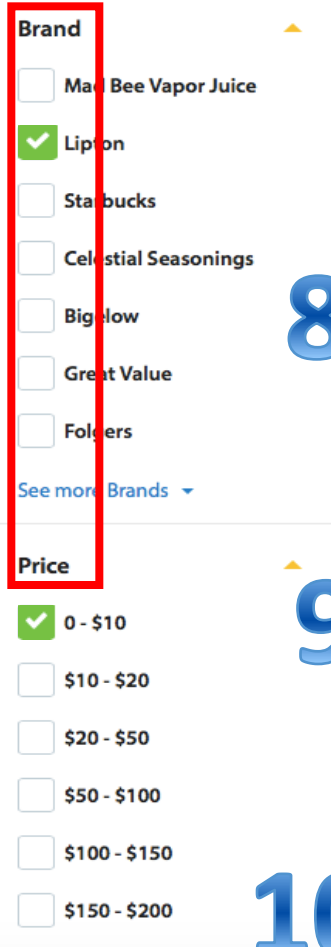
The screenshot shows a navigation menu with two columns. The left column lists various departments, and the right column lists sub-categories under 'My Local Store'. The 'Beverages' sub-category is highlighted with a red box, and a red '7.' is placed to its left.

| All Departments | My Local Store |
|----------------------------|--------------------------------|
| Early Bird Online Specials | Food ▶ |
| Electronics & Office | Baking |
| Movies, Music & Books | Beverages |
| Home, Furniture & Patio | Breakfast & Cereal |
| Food, Household & Pets | Candy |
| Clothing, Shoes & Jewelry | Canned Goods & Soups |
| Baby & Kids | Coffee & Tea |
| Toys & Video Games | Condiments, Sauces, & Spices |
| Sports, Fitness & Outdoors | Emergency Food |
| Auto & Home Improvement | Fresh Food |
| Photo & Gifts | Food Gifts |
| Pharmacy, Health & Beauty | Frozen Foods |
| Crafts & Party Supplies | Meal Solutions, Grains & Pasta |
| See All Departments | Snacks, Cookies & Chips |

```
select category_nm, departmentname
from category, department
where category.category_nm=department.id
having departmentname="beverages";
```

Function

10.



The screenshot shows the Walmart website's filter sidebar. The 'Brand' section is highlighted with a red box and contains the following items: M&B Bee Vapor Juice, Lipton, Starbucks, Celestial Seasonings, Bigelow, Great Value, and Folders. Below this is a 'See more Brands' link. The 'Price' section is also visible with several price range options, the first of which is selected.

8.

```
select product_nm,description,price,address,inventory
from product,warehouse,warehouse_has_product
where warehouse.id=warehouse_has_product.store_id and warehouse_has_product.product_id=product.id
having inventory>0;
```

9.

```
SELECT product_nm, price
FROM product
ORDER BY price ASC;
```

10.

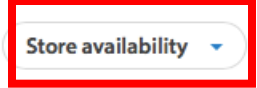
```
SELECT product.product_nm, product.description, product.price
FROM product, brand
WHERE lcase(brand.brand_nm) = 'lipton' and product.price <= 10 and product.price >= 0;
```

9.



A red box highlights the 'Sort' dropdown menu on the Walmart website, which is currently set to 'Price: low to high'.

8.



A red box highlights the 'Store availability' dropdown menu on the Walmart website.

THANK YOU

