题目一

- 建表

```
university=# CREATE TABLE product (
    product_no INTEGER PRIMARY KEY,
    name VARCHAR(100),
    price DECIMAL(10, 2)
);
CREATE TABLE
```

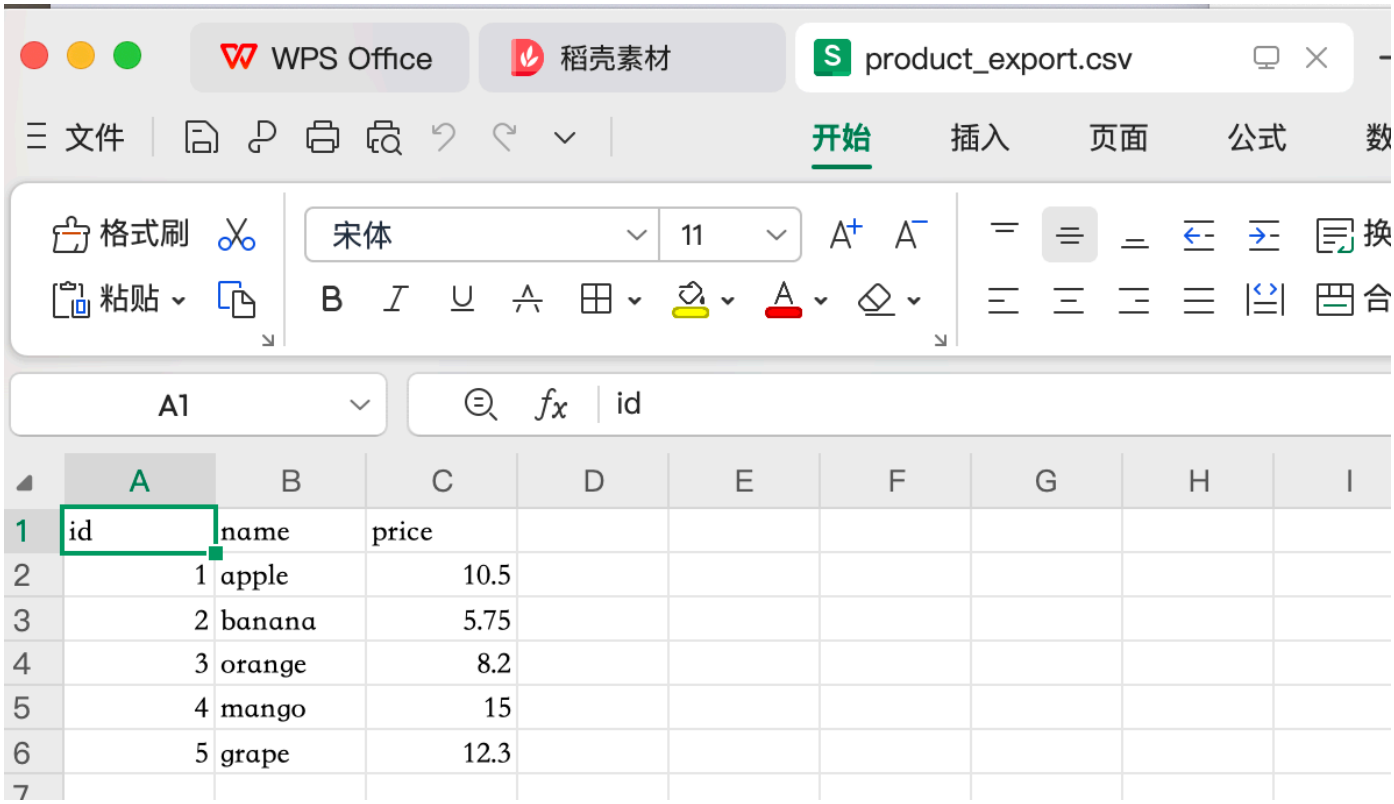
由于我使用COPY 权限不够，我是用的是 \copy 进行复制

- 复制 txt 文件数据

```
postgres=# \copy product (product_no, name, price)
FROM '/Users/liuyongjie/Documents/homework/数据库作业四/product.txt'
DELIMITER ','
CSV HEADER;
COPY 5
```

- 导出表为 csv 文件

```
postgres=# \copy product TO '/Users/liuyongjie/Documents/homework/数据库作业四/product_export.csv'
DELIMITER ','
CSV HEADER;
COPY 5
```



题目二

- 添加商品编号

```
INSERT INTO product (product_no, name, price)
VALUES (666, 'cake', NULL);
```

- 同时添加 3 个商品

```
postgres=# INSERT INTO product (product_no, name, price)
VALUES
    (1001, 'pear', 9.80),
    (1002, 'kiwi', 14.50),
    (1003, 'lemon', 7.20);
INSERT 0 3
```

- 价格统一打 8 折

```
postgres=# UPDATE product
SET price = price * 0.8
WHERE price IS NOT NULL;
UPDATE 8
```

- 价格大于 100 的上涨 2%，其余上涨 4%

```
postgres=# UPDATE product
SET price = CASE
    WHEN price > 100 THEN price * 1.02
    ELSE price * 1.04
END
WHERE price IS NOT NULL;
UPDATE 8
```

- 删除名字包含 'cake' 的商品

```
postgres=# DELETE FROM product
WHERE name LIKE '%cake%';
DELETE 1
```

- 删除价格高于平均价格的商品

```
postgres=# DELETE FROM product
WHERE price > (SELECT AVG(price) FROM product WHERE price IS NOT NULL);
DELETE 4
```

- 最终表内结果

```
postgres=# SELECT * FROM product;
 product_no |  name   | price
------------+---------+-------
          2 | banana  |  4.78
          3 | orange  |  6.82
       1001 | pear    |  8.15
       1003 | lemon   |  5.99
(4 rows)
```

题目三]

- 插入 数据

```
postgres=# INSERT INTO product (product_no, name, price)
SELECT
    generate_series + (SELECT MAX(product_no) FROM product),
    'Product' || generate_series,
    ROUND((random() * 1000)::numeric, 2)
FROM generate_series(1, 100000);
INSERT 0 100000
```

- 比较 时间

1. 使用DELECT 时间10s左右

```
DELETE FROM product;
```

2.使用 TRUNCATE 时间 几 ms 左右，时间非常快

```
TRUNCATE TABLE product;
```