

创建'basic_data'表格及表格结构:

```
CREATE TABLE basic_data (
    invoice VARCHAR(20),
    stockcode VARCHAR(20),
    description VARCHAR(100),
    quantity INT,
    invoicedate TIMESTAMP WITHOUT TIME ZONE,
    price DECIMAL(10,2),
    customer_id VARCHAR(20),
    country VARCHAR(20)
);
```

将收集的数据存储至'basic_data'表格中:

```
COPY basic_data(
    invoice,
    Stockcode,
    description,
    quantity,
    invoicedate,
    price,
    customer_id,
    country)
FROM '\Project white\basic_data.csv'
DELIMITER ',' CSV HEADER;
```

选取一部分数据验证'basic_data'表格建立是否成功:

```
SELECT * FROM basic_data
WHERE quantity > 1000
ORDER BY quantity DESC;
```

增加一列'invoice_amount'并将其设置为'quantity'和'price'的乘积:

```
ALTER TABLE basic_data
ADD COLUMN invoice_amount DECIMAL(10,2);

UPDATE basic_data
SET invoice_amount = quantity * price;
```

将'invoicedate'设置为日期格式:

```
UPDATE basic_data
SET invoicedate = DATE(invoicedate);
```

创建'holidays'表格及表格结构:

```
CREATE TABLE holidays (
    date DATE PRIMARY KEY,
    uk BOOLEAN,
    ie BOOLEAN,
    fr BOOLEAN,
    de BOOLEAN
);
```

将收集的数据存储至'holidays'表格中:

```
COPY holidays
FROM '\Project white\holidays.csv' DELIMITER ',' CSV HEADER;
```

在'basic_data'表格中将'invoicedate'列设置为'foreign key'并将其引用至'holidays'表格中的'date'列:

```
ALTER TABLE basic_data
ADD CONSTRAINT fk_basic_data
FOREIGN KEY (invoicedate)
REFERENCES holidays(date);
```

创建'holidays_continued'表格及表格结构:

```
CREATE TABLE holidays_continued (
    date DATE PRIMARY KEY,
    uk BOOLEAN
);
```

将收集的数据存储至'holidays_continued'表格中:

```
COPY holidays_continued
FROM '\Project white\holidays_continued.csv' DELIMITER ',' CSV HEADER;
```

将整理后的'basic_data'表格保存至本地供后续分析使用:

```
COPY basic_data
TO '\Project white\basic_data_from_postgresql.csv' WITH (FORMAT CSV, HEADER);
```