SQL tasks:

Task 1
Create a virtual table called **OrdersView** that focuses on **OrderID**, Quantity and Cost columns within the Orders table for all orders with a quantity greater than 2.

Task 2
Find information on all customers with orders that cost more than $150.

Task 3
Find all menu items for which more than 2 orders have been placed.

Task 4
Create a procedure that displays the maximum ordered quantity in the Orders table.

Task 5
Create a prepared statement called **GetOrderDetail**. This prepared statement will help to reduce the parsing time of queries. It will also help to secure the database from SQL injections.

The prepared statement should accept one input argument, the **CustomerID** value, from a variable.

The statement should return the order id, the quantity and the order cost from the Orders table.

Task 6
Create a stored procedure called **CancelOrder**. Little Lemon want to use this stored procedure to delete an order record based on the user input of the order id.

Creating this procedure will allow Little Lemon to cancel any order by specifying the order id value in the procedure parameter without typing the entire SQL delete statement.

Task 7
Populate the Bookings table of their database with some records of data. Replicate the list of records in the following table by adding them to the Little Lemon booking table.

BookingID	BookingDate	TableNumber	CustomerID
1	2022-10-10	5	1
2	2022-11-12	3	3
3	2022-10-11	2	2
4	2022-10-13	2	1

Task 8
Create a stored procedure called **CheckBooking** to check whether a table in the restaurant is already booked. The procedure should have two input parameters in the form of booking date and table number.

Task 9
Verify a booking, and decline any reservations for tables that are already booked under another name. Create a new procedure called **AddValidBooking**. This procedure must use a transaction statement to perform a rollback if a customer reserves a table that's already booked under another name.

Task 10

Create a new procedure called **AddBooking** to add a new table booking record.

The procedure should include four input parameters in the form of the following bookings parameters:

- booking id,
- customer id,
- booking date,
- and table number.

Task 11

Create a new procedure called **UpdateBooking** that they can use to update existing bookings in the booking table.

The procedure should have two input parameters in the form of booking id and booking date. You must also include an **UPDATE** statement inside the procedure.

Task 12

Create a new procedure called **CancelBooking** that they can use to cancel or remove a booking.

The procedure should have one input parameter in the form of booking id. You must also write a **DELETE** statement inside the procedure.

Tableau tasks

Task 1

Connect to Little Lemon data stored in the Excel Sheet called **LittleLemonDB**. Then filter data in the data source page and select the United States as the country.

Task 2

Create two new data fields called First Name and Last Name. Related values should be extracted from the Full Name field.

Task 3

Create a new data field that stores the profits for each sale, or order as shown in the screenshot below.

Task 4

Create a bar chart that shows customers sales and filter data based on sales with at least $70.

Task 5

Create a line chart to show the sales trend from 2019 to 2022.

Task 6

Create a Bubble chart of sales for all customers. The chart should show the names of all customers. Once you roll over a bubble, the chart should show the name, profit and sale.

Task 7

Compare the sales of the three different cuisines sold at Little Lemon. Create a Bar chart that shows the sales of the Turkish, Italian and Greek cuisines.

You need to display sales data for 2020, 2021, and 2022 only. Each bar should display the profit of each cuisine.

Task 8

Create an interactive dashboard that combines the Bar chart called **Customers sales** and the **Sales** Bubble Chart. Once you click a bar, and roll over the related bubble, the name, sales and profit figures should be displayed in the Bubble chart.

Python client project tasks

Task 1

Cconnect to the database and instantiate the cursor.

Task 2

Query the database to show all tables within the database.

Task 3

Return the full name and contact details for every customer that has placed an order greater than $60.