

# SQL Final Project

## Part 1: Three Business/Analytical Problems

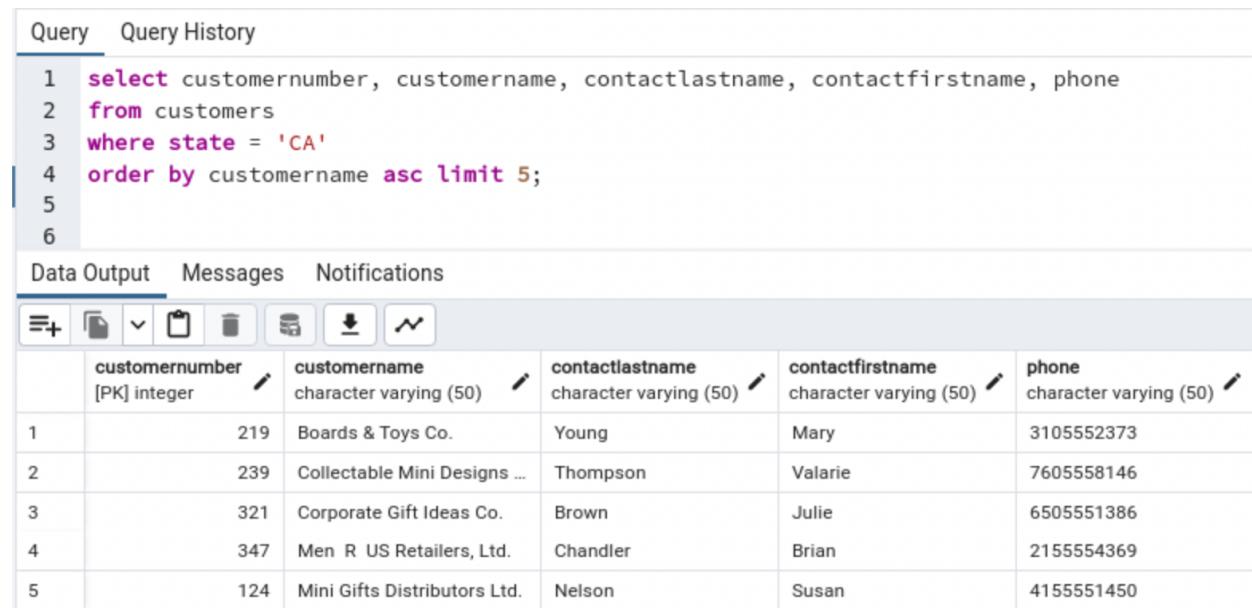
### **Business problem #1:**

List customernumber, customername, contactlastname, contactfirstname, and phone number for customers located in the state of California (CA). List the results in alphabetical order of customer name and only show the top 5 rows.

### **Business problem #1 SQL Code:**

```
select customernumber, customername, contactlastname, contactfirstname, phone
  from customers
 where state = 'CA'
 order by customername asc limit 5;
```

### **Business problem #1 Query with Solution in Postgres:**



The screenshot shows a PostgreSQL query editor interface. At the top, there are tabs for "Query" and "Query History". Below the tabs, the query code is displayed:

```
1 select customernumber, customername, contactlastname, contactfirstname, phone
2   from customers
3  where state = 'CA'
4  order by customername asc limit 5;
5
6
```

Below the query, there are tabs for "Data Output", "Messages", and "Notifications". Under "Data Output", a table is shown with the following data:

	customernumber [PK] integer	customername character varying (50)	contactlastname character varying (50)	contactfirstname character varying (50)	phone character varying (50)
1	219	Balls & Toys Co.	Young	Mary	3105552373
2	239	Collectable Mini Designs ...	Thompson	Valarie	7605558146
3	321	Corporate Gift Ideas Co.	Brown	Julie	6505551386
4	347	Men R US Retailers, Ltd.	Chandler	Brian	2155554369
5	124	Mini Gifts Distributors Ltd.	Nelson	Susan	4155551450

### **Business problem #2:**

List customernumber, checknumber, paymentdate, and amount for the payment with the highest amount. Title the columns as customer, check, date, and amount respectively.

### **Business problem #2 SQL Code:**

```
select customernumber AS Customer, checknumber AS Check, paymentdate AS Date, amount AS Amount
  from payments
 where amount = (
  select max(amount) from payments);
```

### **Business problem #2 Solution in Postgres:**

The screenshot shows a PostgreSQL query editor interface. At the top, there are tabs for 'Query' (which is selected) and 'Query History'. Below the tabs, the SQL code is displayed in a numbered format:

```
1 select customernumber AS Customer, checknumber AS Check, paymentdate AS Date, amount AS Amount
2   from payments
3 where amount = (
4   select max(amount) from payments);
5
6
```

Below the code, there are tabs for 'Data Output', 'Messages', and 'Notifications'. Under 'Data Output', there is a table with the following data:

	customer integer	check character varying (50)	date date	amount numeric (10,2)
1	141	JE105477	2005-03-18	120166.58

### **Business problem #3:**

For all employees working in the San Francisco office, list EmployeeNumber + LastName (concatenated with a space in between and referred to as employee), jobtitle (referred to as position), reportsto (referred to as supervisor), email, and extension (referred to as ext). The reportsto column cannot have any NULL values. Order the list by ascending employeenumber.

### **Business problem #3 SQL Code:**

```
select concat(employeenumber, ' ', lastname) AS employee, jobtitle AS position,
       reportsto AS supervisor, email, extension AS ext
  from employees
 where officecode = '1'
       and reportsto is not null
 order by 1 ASC;
```

## Business problem #3 Query with Solution:

Query    Query History

```
1 select concat(employeenumber, ' ', lastname) AS employee, jobtitle AS position, reportsto AS supervisor, email, extension AS ext
2 from employees
3 where officecode = '1' and reportsto is not null
4 order by 1 ASC;
5
6
```

Data Output    Messages    Notifications

employee    position    supervisor    email    ext

	employee text	position character varying (50)	supervisor integer	email character varying (100)	ext character varying (10)
1	1056 Patterson	VP Sales	1002	mpatterso@classicmodelcars.com	x4611
2	1076 Firrelli	VP Marketing	1002	jfirrelli@classicmodelcars.com	x9273
3	1143 Bow	Sales Manager (NA)	1056	abow@classicmodelcars.com	x5428
4	1165 Jennings	Sales Rep	1143	ljennings@classicmodelcars.com	x3291
5	1166 Thompsons...	Sales Rep	1143	lthompson@classicmodelcars.com	x4065