**Project Name: Ride Sharing Management System**

**Course Teacher: Kawser Irom Rushee**

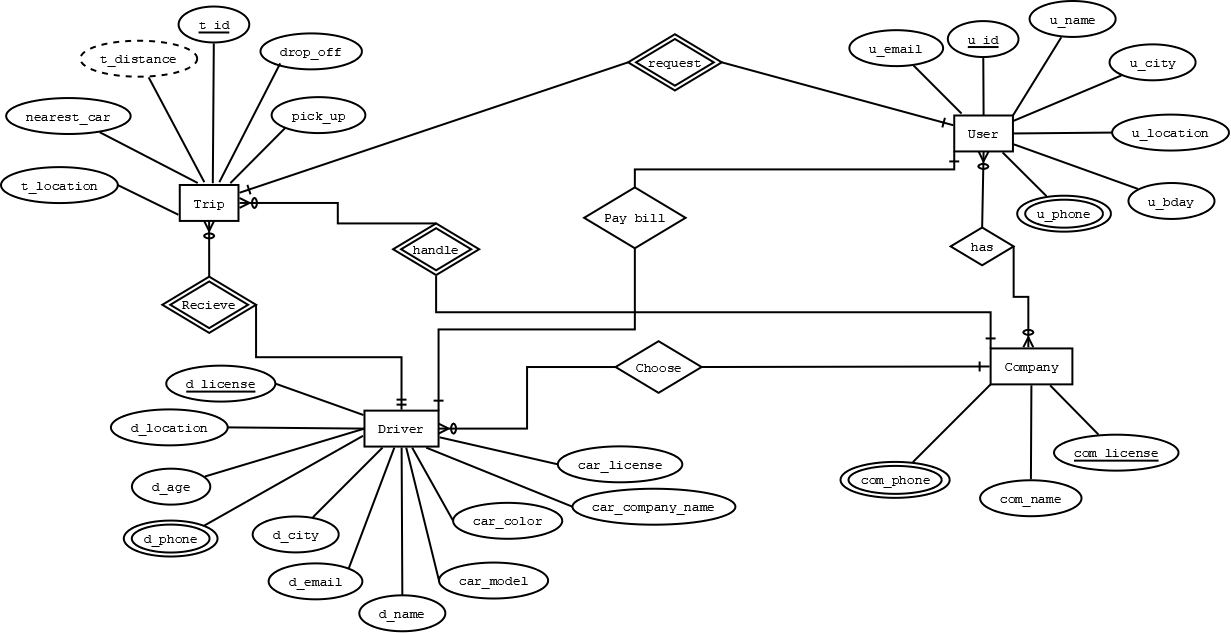
**Group Members**

|  |  |
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| Name | ID |
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| Subrata Das | 19-40015-1 |
| Barshan Ghosh | 19-41305-3 |
| Sharanya Das | 19-41299-3 |

**Scenario**

**A registered user sends a request to hire a car for a ride. A user has name, email, location, an unique id and so on. The request goes to Trip where it has attributes such as pick up and drop off location, trip distance and an unique trip id. The trip is handled by the company and the company chooses all the nearby drivers and then the driver chooses the following trip details. A driver has an unique attribute driver license. Finally after completing the trip the user pays the driver.**

**ER Diagram**



**Normalization**

UNF: (User & Company)

u\_id, u\_name, u\_bday, u\_email, u\_phone, u\_location, u\_city, com\_license, com\_name, com\_phone

1NF: (User & Company)

u\_id, u\_name, u\_bday, u\_email, u\_phone, u\_location, u\_city, com\_license, com\_name, com\_phone

2NF: (User & Company)

T1: u\_id, u\_name, u\_bday, u\_email, u\_phone, u\_location, u\_city, com\_license

T2: com\_license, com\_name, com\_phone

3NF: (User & Company)

T1: u\_id, u\_name, u\_bday, u\_email, u\_phone, u\_city, com\_license

T2: u\_city, u\_location

T3: com\_license, com\_name, com\_phone

UNF: (User & Trip)

u\_id, u\_name, u\_bday, u\_email, u\_phone, u\_location, u\_city, t\_id, pick\_up, drop\_off, t\_distance, t\_location, nearest\_car

1NF: (User & Trip)

u\_id, u\_name, u\_bday, u\_email, u\_phone, u\_location, u\_city, t\_id, pick\_up, drop\_off, t\_distance, t\_location, nearest\_car

2NF: (User & Trip)

T1: u\_id, u\_name, u\_bday, u\_email, u\_phone, u\_location, u\_city, t\_id

T2: t\_id, pick\_up, drop\_off, t\_distance, t\_location, nearest\_car

3NF: (User & Trip)

T1: u\_id, u\_name, u\_bday, u\_email, u\_phone, u\_city, t\_id

T2: u\_city, u\_location

T3: t\_id, pick\_up, drop\_off, t\_distance, t\_location

T4: t\_location, nearest\_car

UNF: (Driver & Company)

d\_license, d\_name, d\_email, d\_phone, d\_location, d\_age, d\_city, car\_license, car\_color, car\_company\_name, car\_model, com\_license, com\_name, com\_phone

1NF: (Driver & Company)

d\_license, d\_name, d\_email, d\_phone, d\_location, d\_age, d\_city, car\_license, car\_color, car\_company\_name, car\_model, com\_license, com\_name, com\_phone

2NF: (Driver & Company)

T1: d\_license, d\_name, d\_email, d\_phone, d\_location, d\_age, d\_city, car\_license, car\_color, car\_company\_name, car\_model, com\_license

T2: com\_license , com\_name, com\_phone

3NF: (Driver & Company)

T1: d\_license, d\_name, d\_email, d\_phone, d\_age, d\_city, car\_license, car\_color, car\_company\_name, com\_license

T2: d\_city, d\_location

T3: car\_company\_name, car\_model

T4: com\_license, com\_name, com-phone

UNF: (Company & Trip)

com\_license, com\_name, com\_phone, t\_id, pick\_up, drop\_off, t\_distance, t\_location, nearest\_car

1NF: (Company & Trip)

com\_license, com\_name, com\_phone, t\_id, pick\_up, drop\_off, t\_distance, t\_location, nearest\_car

2NF: (Company & Trip)

T1: com\_license, com\_name, com\_phone, t\_id

T2: t\_id, pick\_up, drop\_off, t\_distance, t\_location, nearest\_car

3NF: (Company & Trip)

T1: com\_license, com\_name, com\_phone, t\_id

T2: t\_id, pick\_up, drop\_off, t\_distance, t\_location

T3: t\_location, nearest\_car

UNF: (User & Driver)

u\_id, u\_name, u\_bday, u\_email, u\_phone, u\_location, u\_city, d\_license, d\_name, d\_email, d\_phone, d\_location, d\_age, d\_city, car\_license, car\_color, car\_company\_name, car\_model

1NF: (User & Driver)

u.id, u.name, u.bday, u.email, u.phone, u.location, u.city, d.license, d.name, d.email, d.phone, d.location, d.age, d.city, car.license, car.color, car.company.name, car.model

2NF: (User & Driver)

T1: u\_id, u\_name, u\_bday, u\_email, u\_phone, u\_location, d\_age, u\_city, d\_license

T2: d\_license, d\_name, d\_email, d\_phone, d\_location, d\_city, car\_license, car\_color, car\_company\_name, car\_model

3NF: (User & Driver)

T1: u\_id, u\_name, u\_bday, u\_email, u\_phone, u\_city, d\_license

T2: u\_city, u\_location

T3: d\_license, d\_name, d\_email, d\_phone, d\_location, d\_age, d\_city, car\_license, car\_color, car\_company\_name

T4: d\_city, d\_location

T5: car\_company\_name, car\_model

UNF: (Driver & Trip)

d\_license, d\_name, d\_email, d\_phone, d\_location, d\_age, d\_city, car\_license, car\_color, car\_company\_name, car\_model, t\_id, pick\_up, drop\_off, t\_distance, t\_location, nearest\_car

1NF: (Driver & Trip)

d\_license, d\_name, d\_email, d\_phone, d\_location, d\_age, d\_city, car\_license, car\_color, car\_company\_name, car\_model, t\_id, pick\_up, drop\_off, t\_distance, t\_location, nearest\_car

2NF: (Driver & Trip)

T1: d\_license, d\_name, d\_email, d\_phone, d\_location, d\_age, d\_city, car\_license, car\_color, car\_company\_name, car\_model, t\_id

T2: t\_id, pick\_up, drop\_off, t\_distance, t\_location, nearest\_car

3NF: (Driver & Trip)

T1: d\_license, d\_name, d\_email, d\_phone, d\_age, d\_city, car\_license, car\_color, car\_company\_name, t\_id

T2: d\_city, d\_location

T3: car\_company\_name, car\_model

T4: t\_id, pick\_up, drop\_off, t\_distance, t\_location

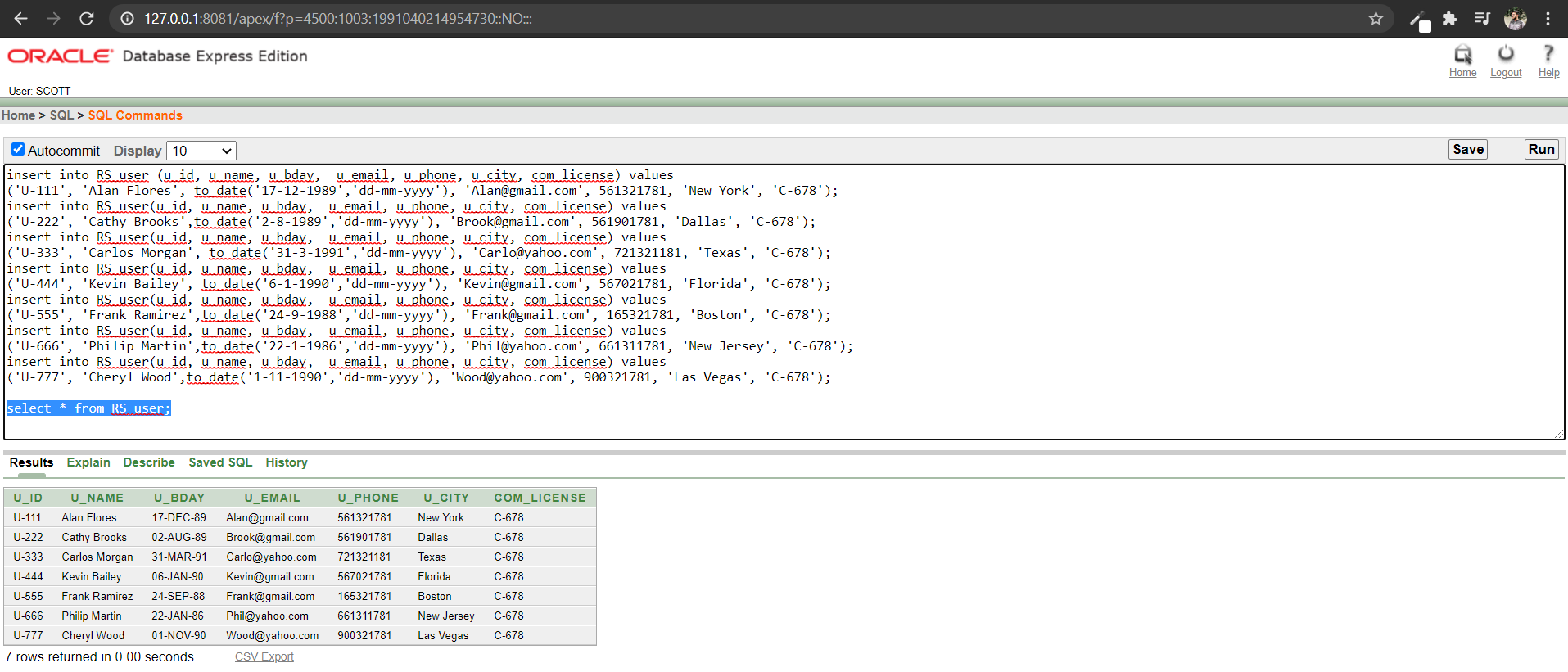
T5: t\_location, nearest\_car

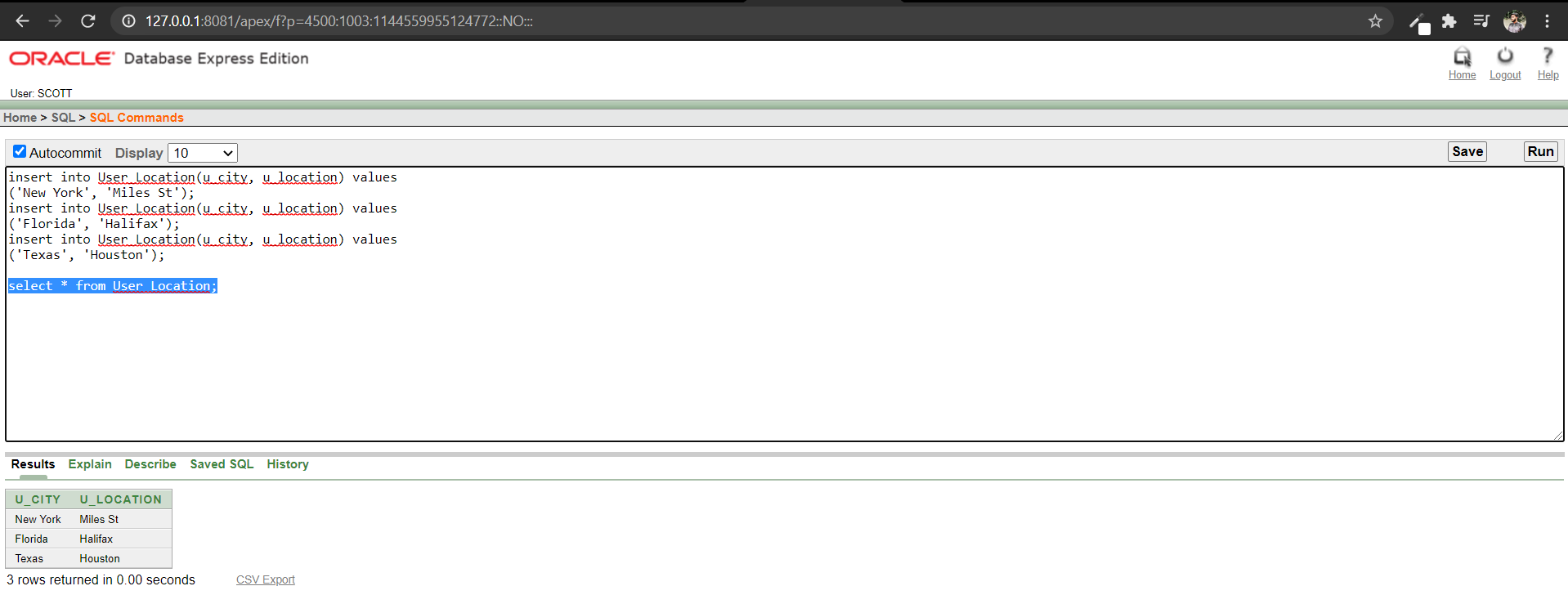
**Table**

|  |  |  |  |
| --- | --- | --- | --- |
| **No.** | **Table Name** | **Attribute** | **Constraint** |
| 1 | RS\_user | u\_id u\_name, u\_bday, u\_email, u\_phone, u\_city, com\_license |  |
| 2 | User\_Location | u\_city, u\_location |  |
| 3 | User\_Driver\_Rel | u\_id, u\_name, u\_bday, u\_email, u\_phone, u\_city, d\_license |  |
| 4 | User\_Trip\_Rel | u\_id, u\_name, u\_bday, u\_email, u\_phone, u\_city, t\_id |  |
| 5 | RS\_driver | d\_license, d\_name, d\_email, d\_phone, d\_age, d\_city, car\_license, car\_color, car\_company\_name, com\_license | CONSTRAINT cr\_driver |
| 6 | Driver\_Location | d\_city, d\_location |  |
| 7 | Driver\_Trip\_Rel | d\_license, d\_name, d\_email, d\_phone, d\_age, d\_city, car\_license, car\_color, car\_company\_name, t\_id |  |
| 8 | Car\_Details | car\_company\_name, car\_model |  |
| 9 | RS\_company | com\_license, com\_name, com\_phone, t\_id |  |
| 10 | RS\_trip | t\_id, pick\_up, drop\_off, t\_distance, t\_location |  |
| 11 | TripLocation\_Cars | t\_location, nearest\_car |  |

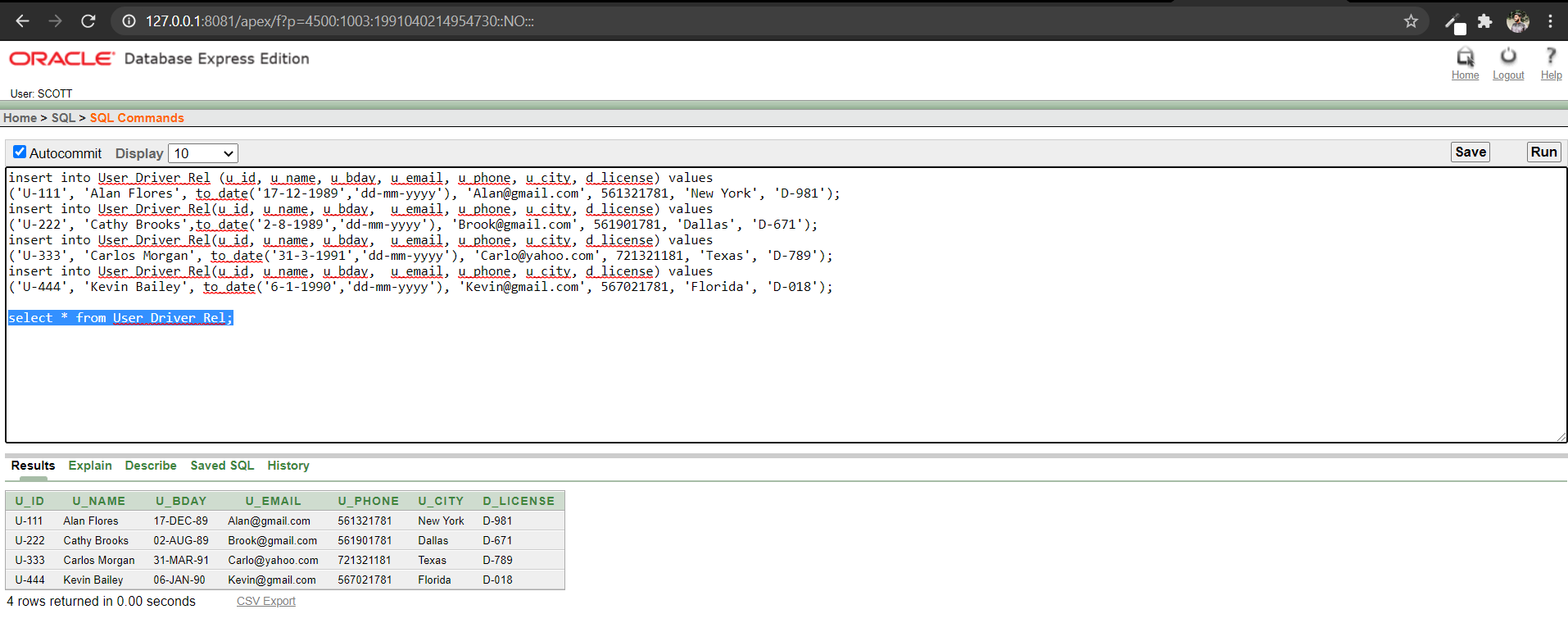
**Table Creation with Inserted Values**

**RS\_User**

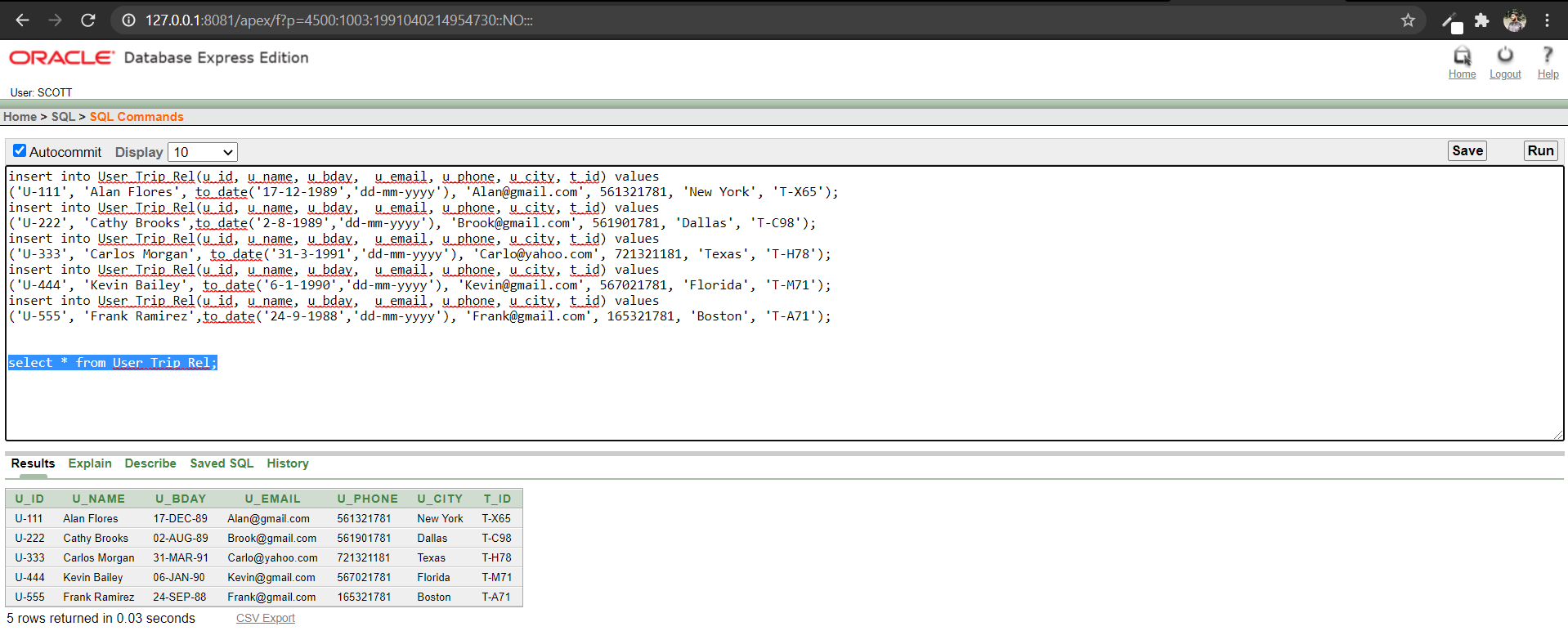


**User\_Location**

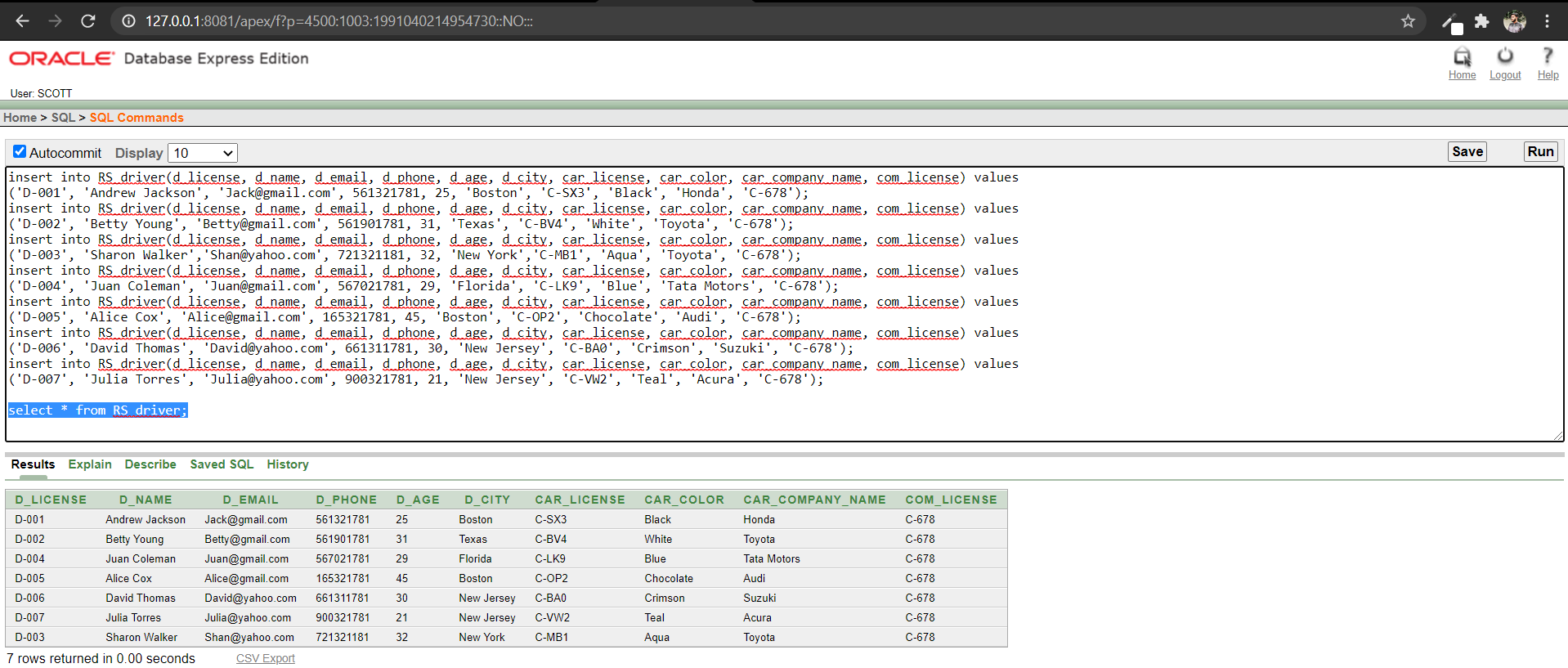
**User\_Driver\_Rel**

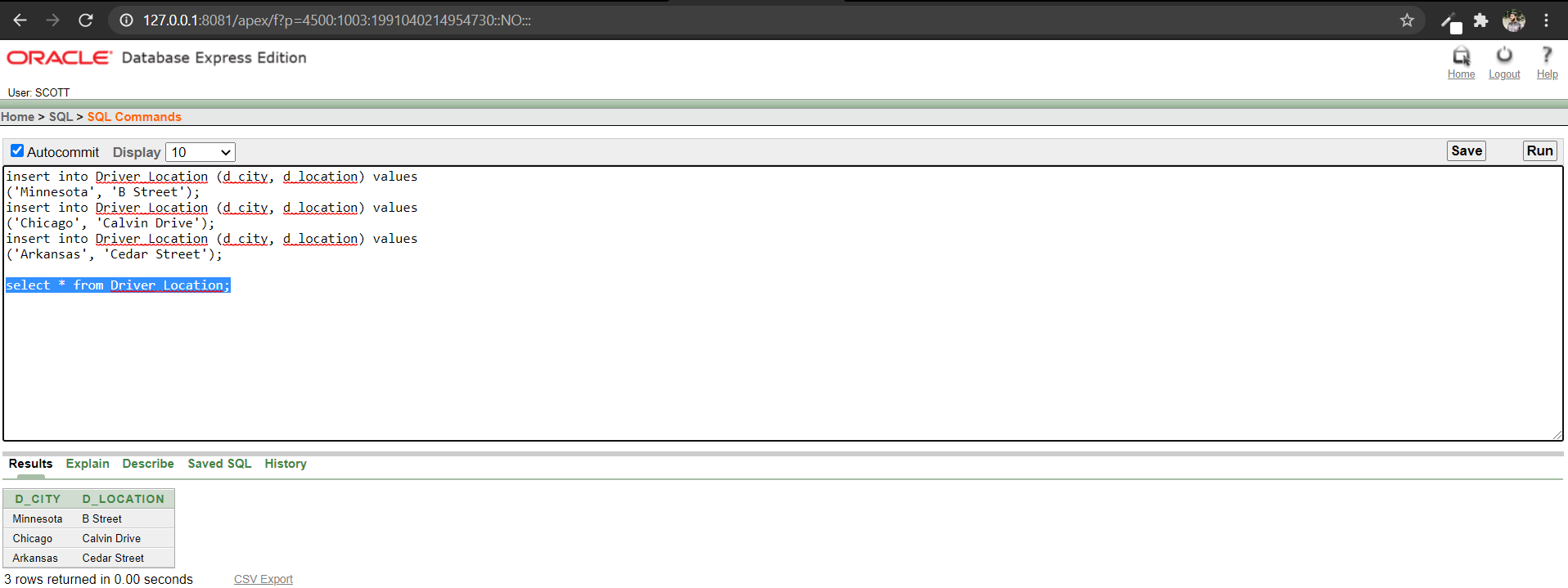


**User\_Trip\_Rel**

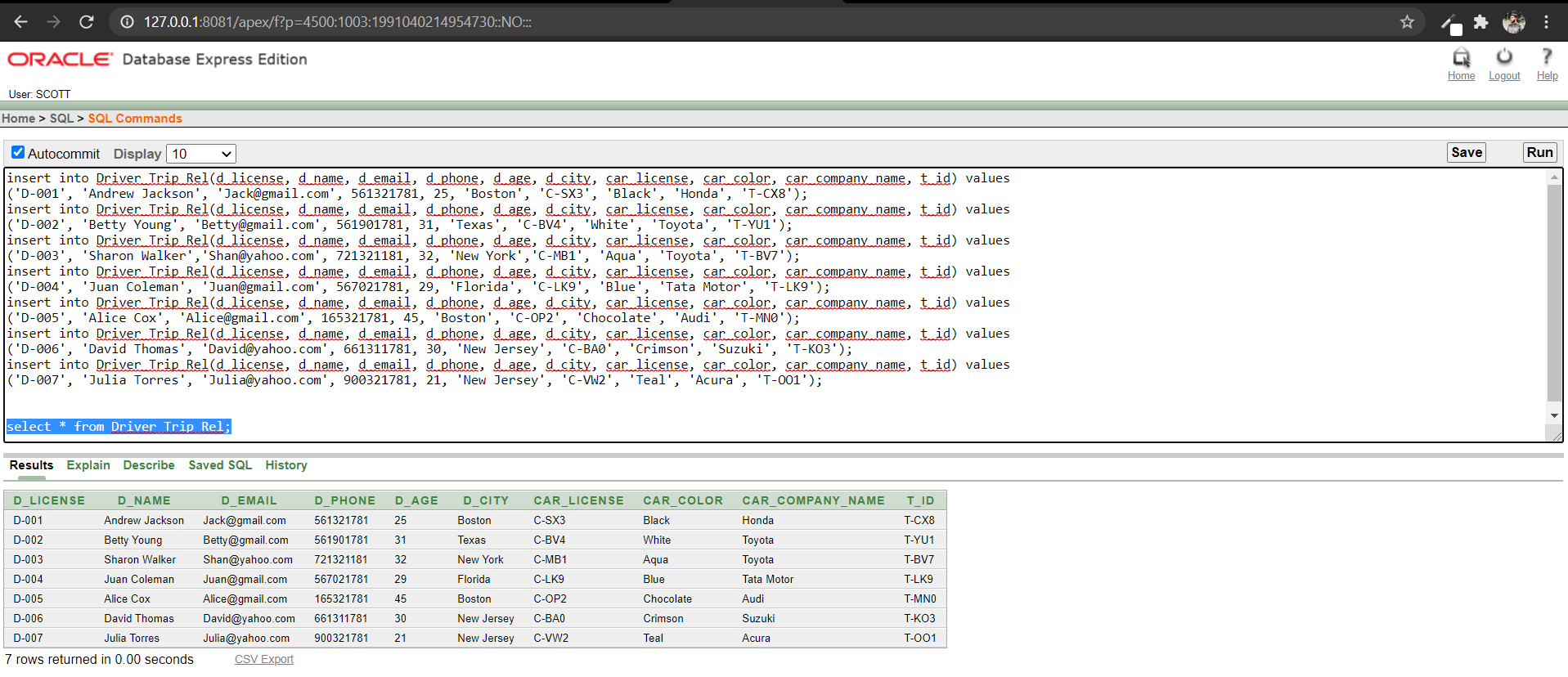


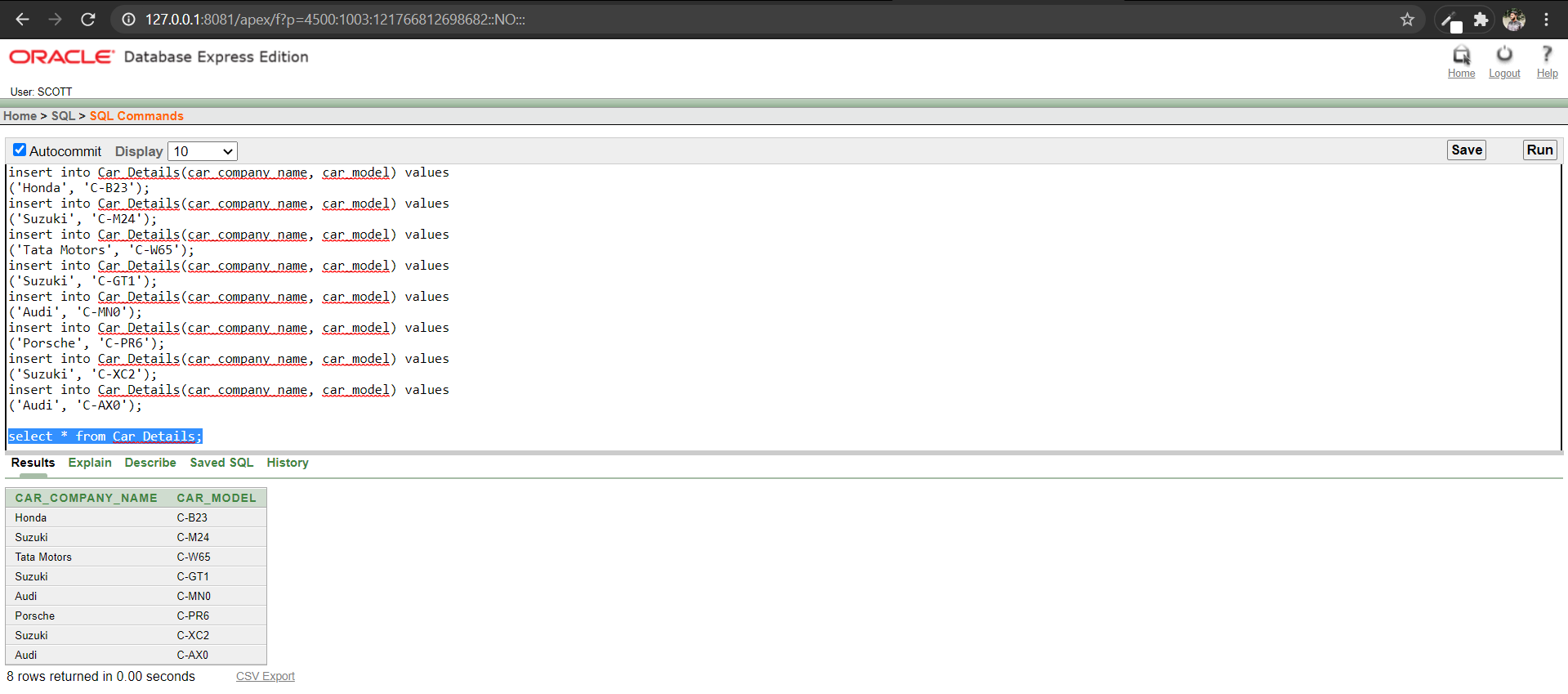
**RS\_Driver**



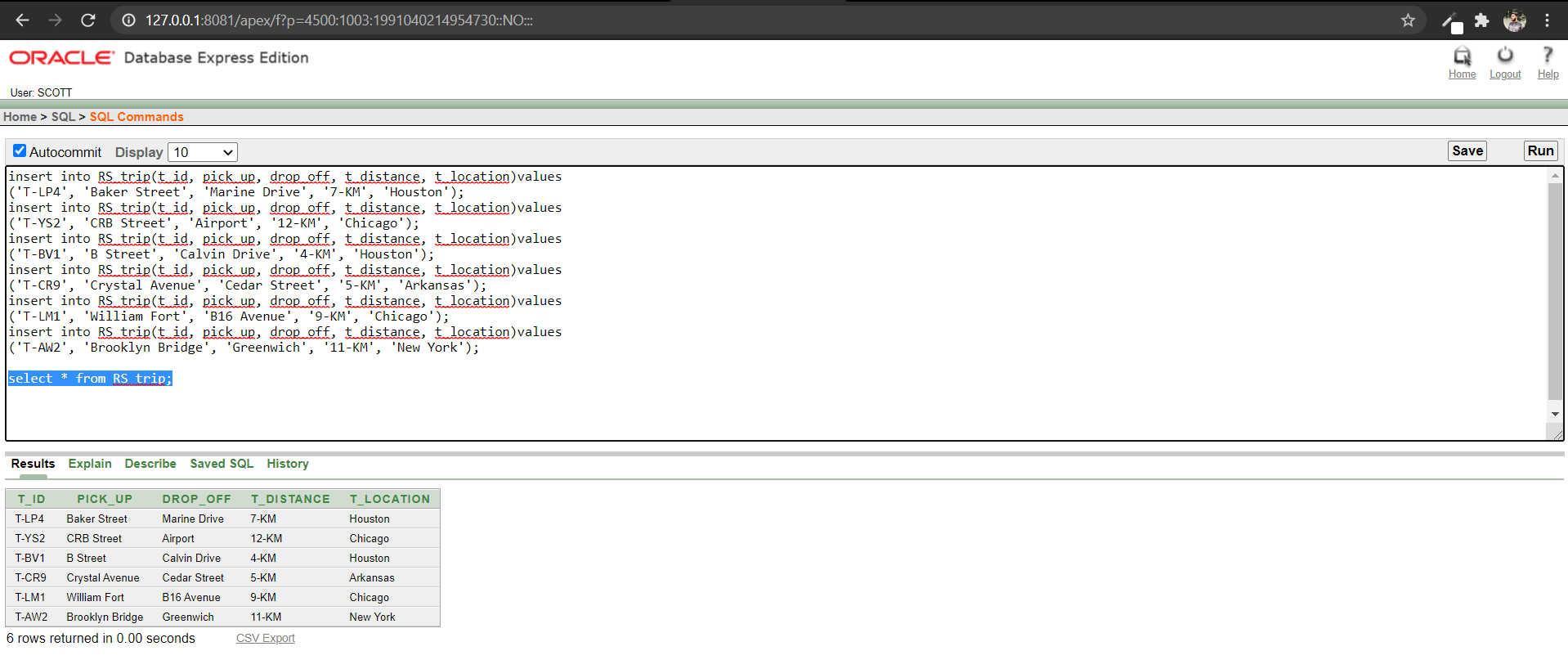
**Driver\_Location**

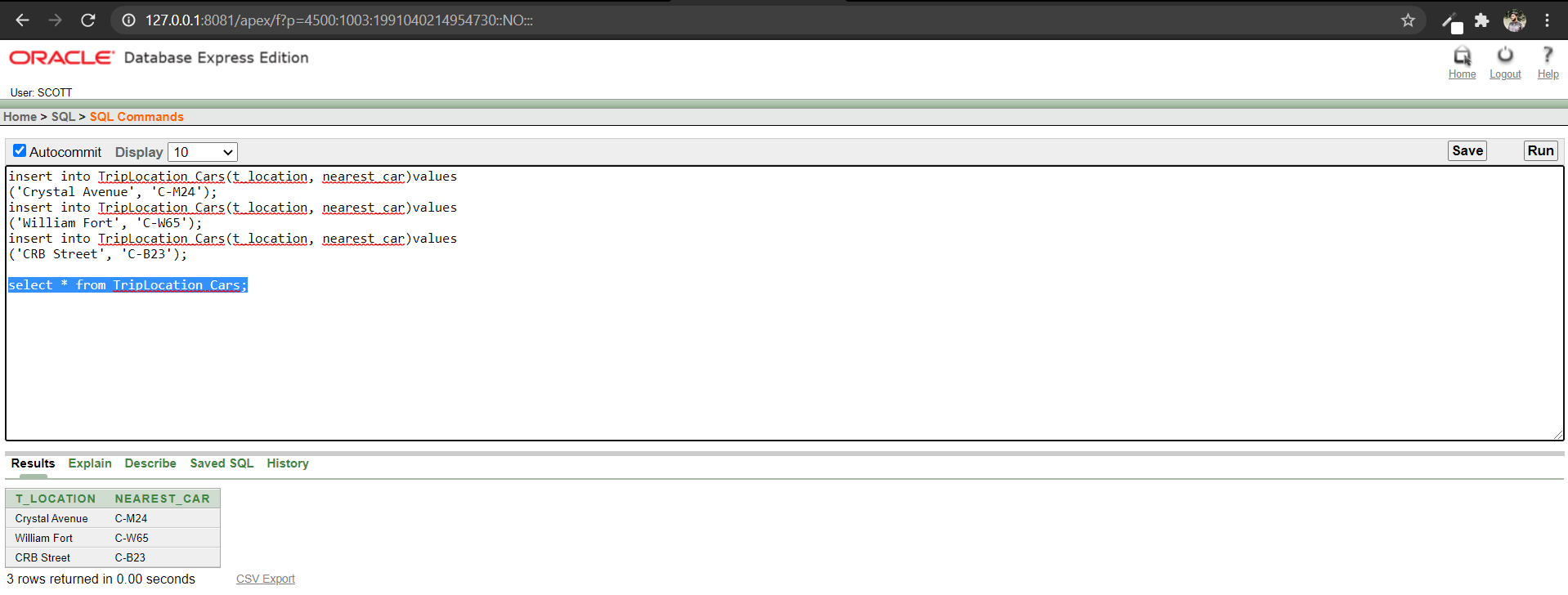
**Driver\_Trip\_Rel**



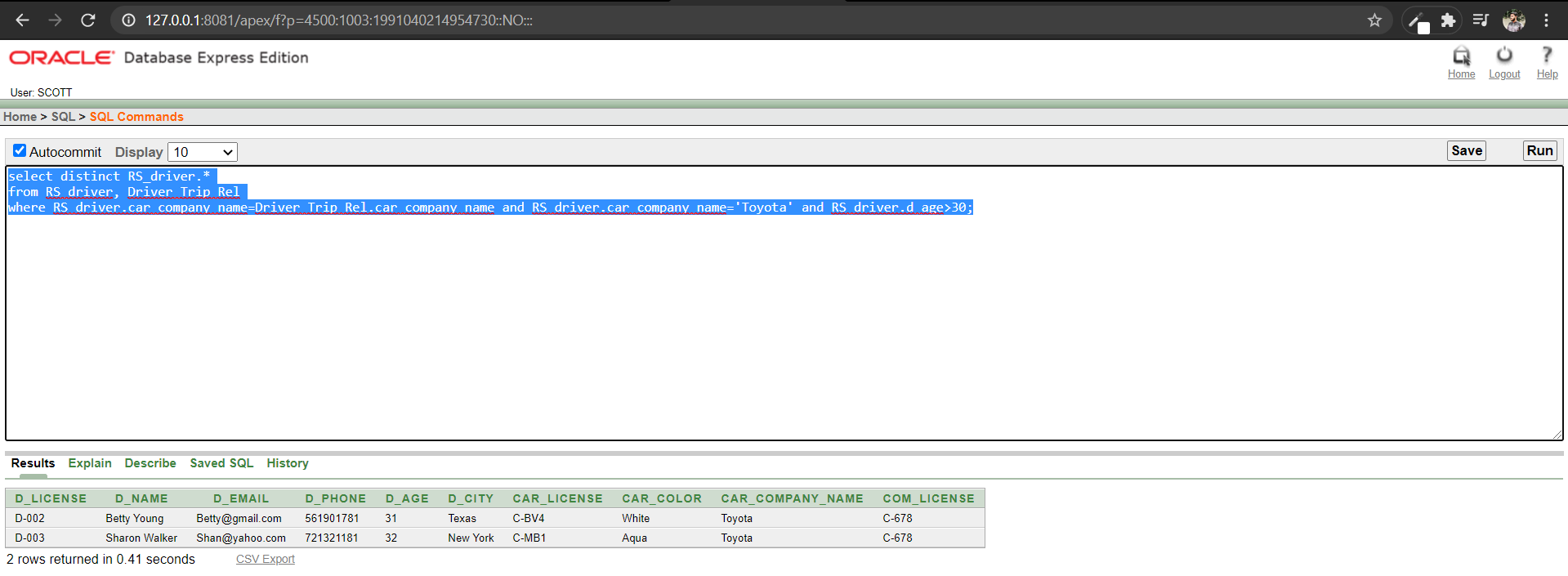
**Car\_Details**

**RS\_Trip**

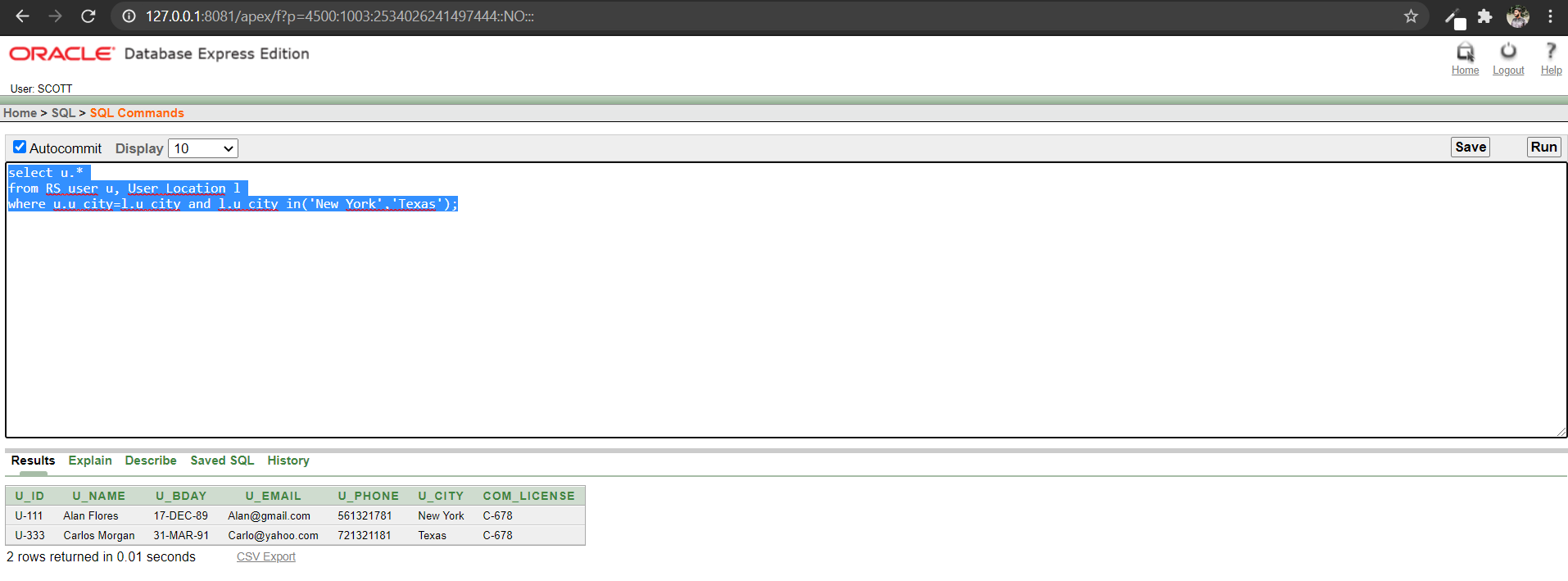


**TripLocation\_Cars**

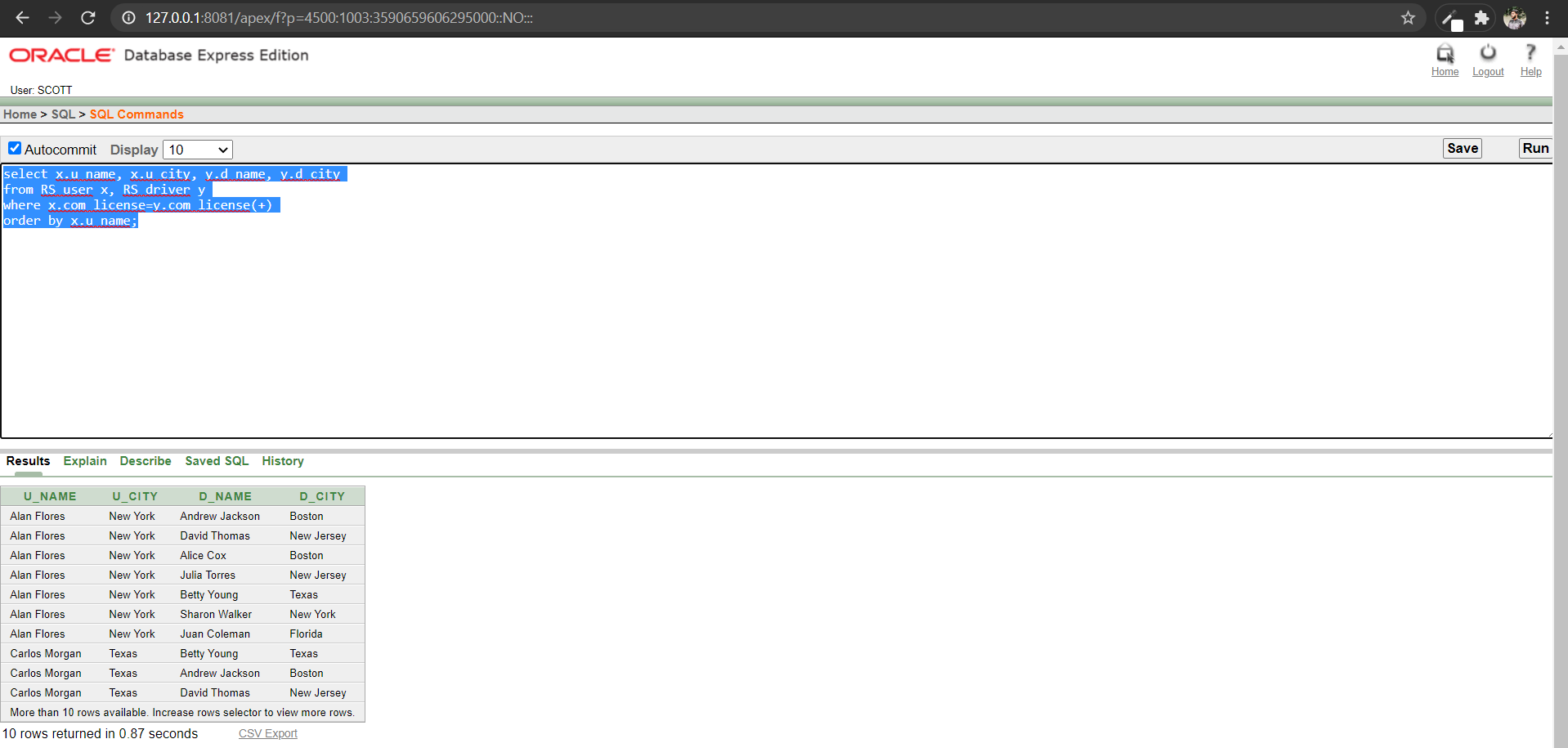
**Query Questions and Answers**

**Display all drivers information whose age is greater than 30 also drives a car of ‘Toyota’ company (Equijoin)**

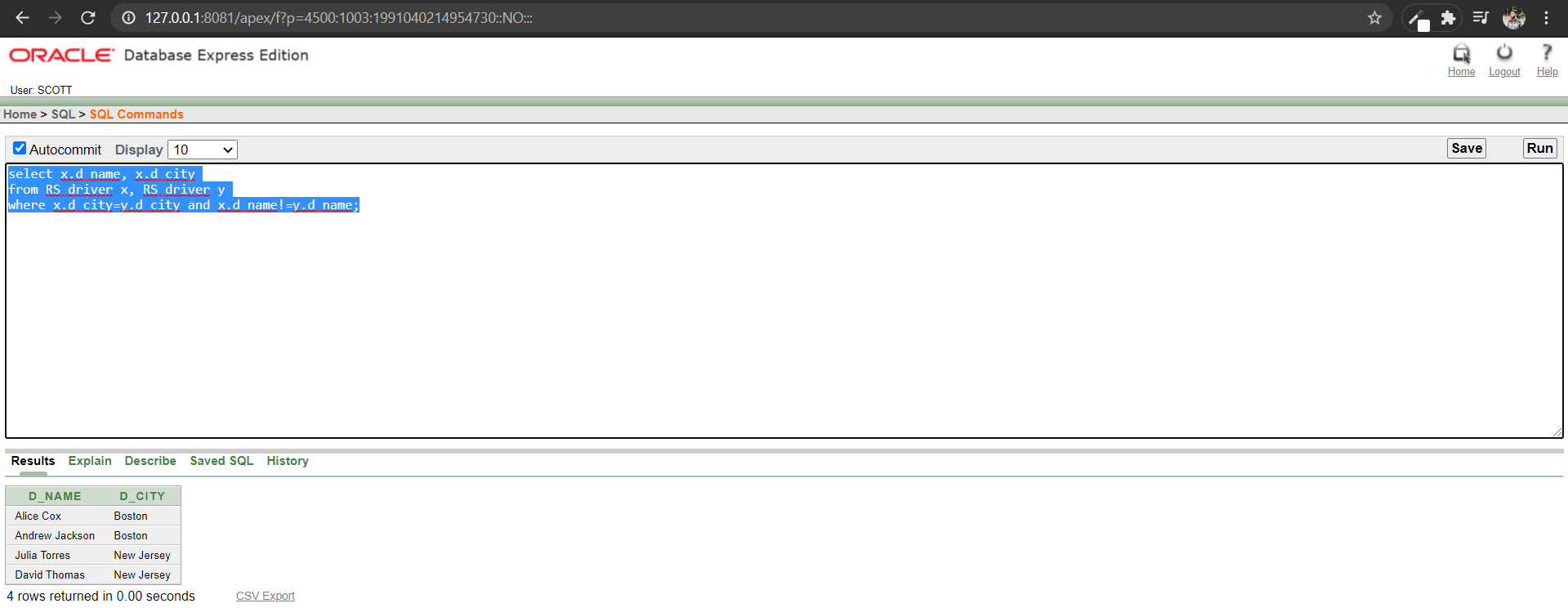
**Display all users information who are located in Texas and New York (Equijoin)**



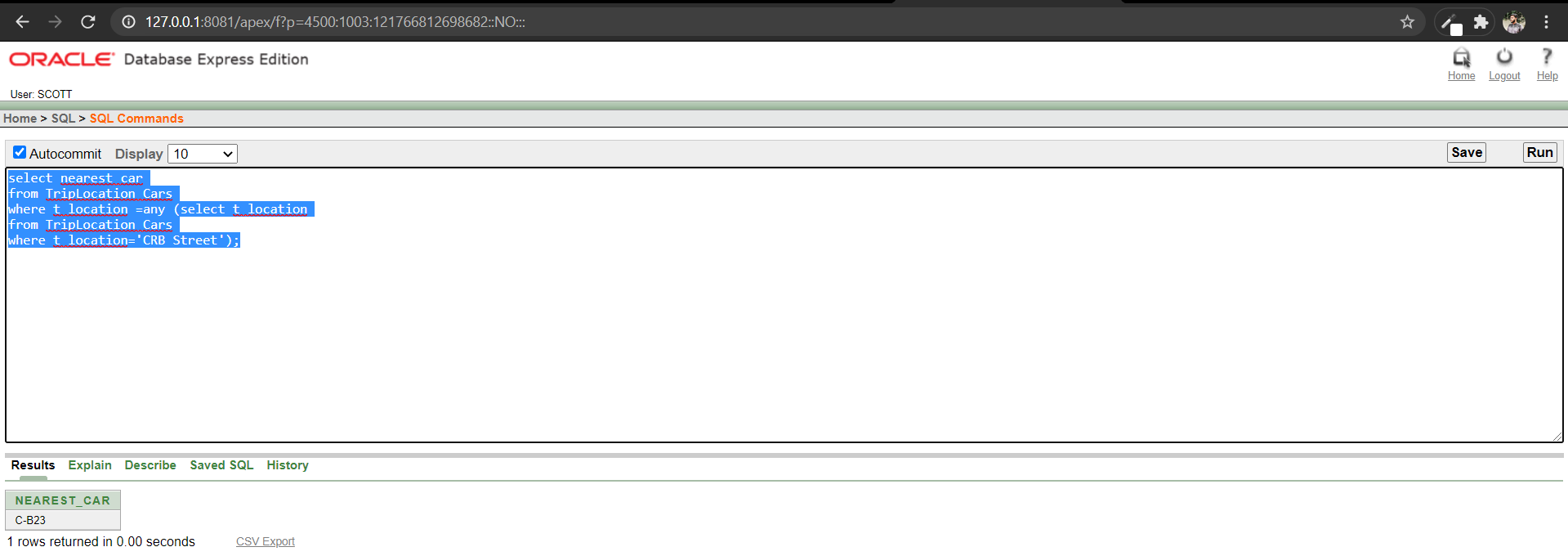
**Display all users name, city and driver information (Outer Join)**



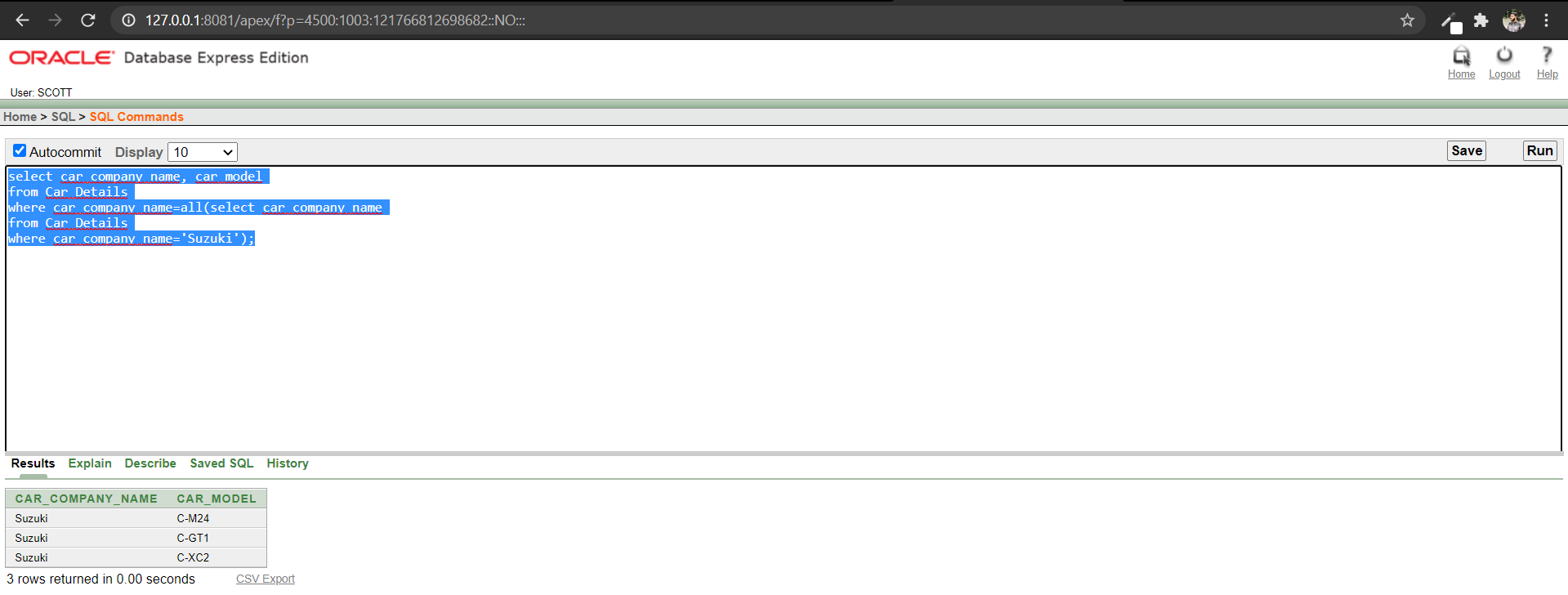
**Display all drivers information who are located in the same city (Self Join)**



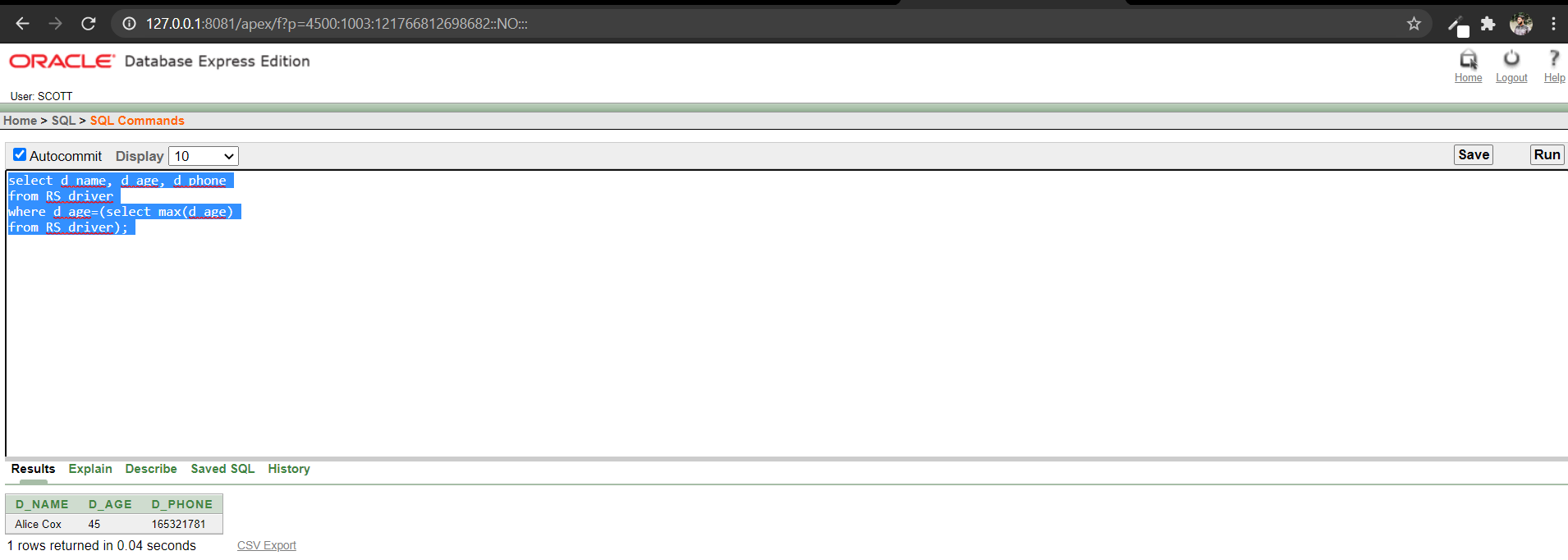
**Display all the nearest cars in ‘CRB Road’ (Sub query)**



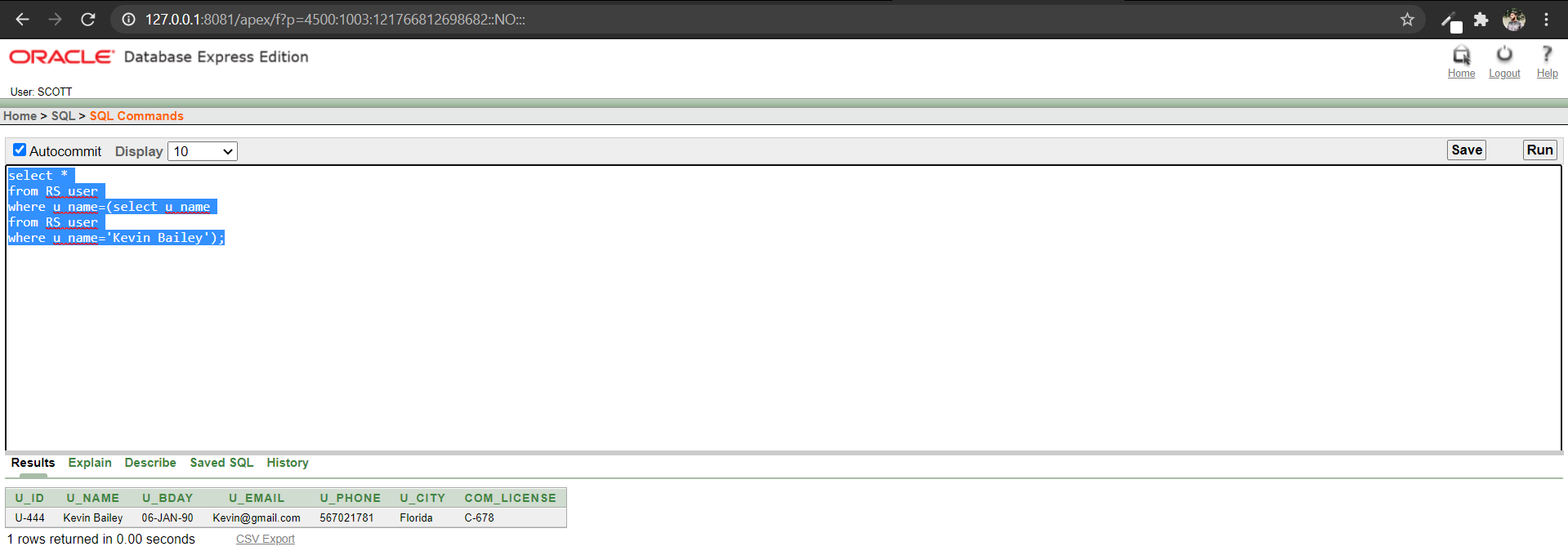
**Display all the cars of ‘Suzuki’ company (Sub query)**



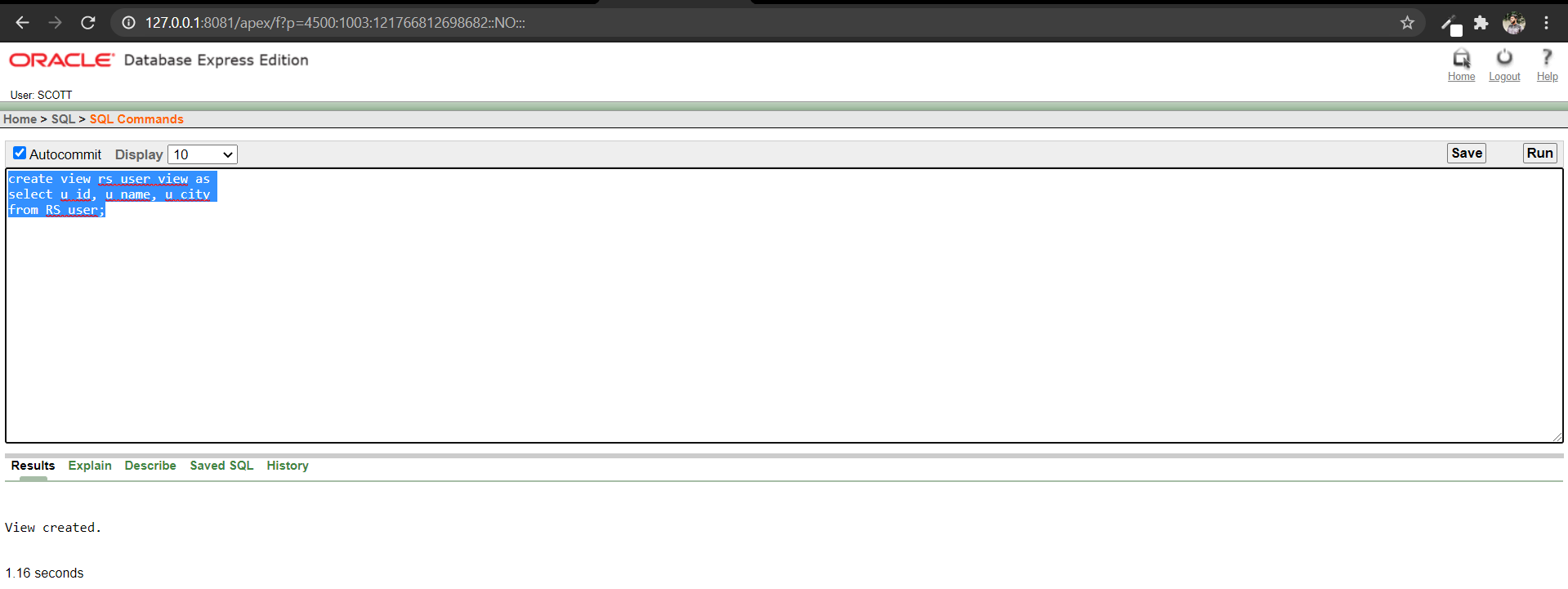
**Display the name, age and phone number of the oldest driver in the company (Sub query)**



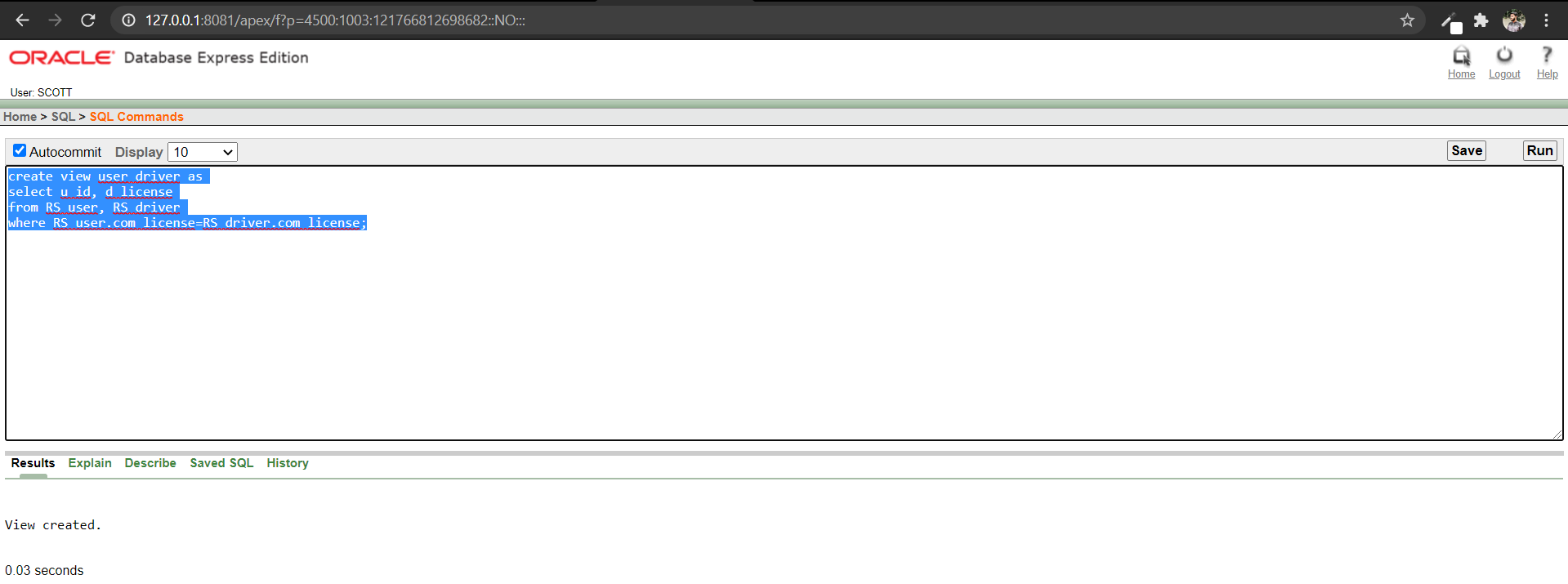
**Display all the information of a user named ‘Kevin Bailey’ (Sub query)**



**Create a view (Simple View)**



**Create a view (Complex view using joining)**



**Add a Constraint**

