**CAR RETAIL MANAGEMENT SYSTEM**

1. **Description of the Car Retail Management System**

* The details of Cars is stored into Cars table with below mentioned attributes.
* Each entity( Car Owners, Customer, Car Models, Cars) contain primary keys and unique keys.
* The entity Car Owners, Customers has binded with Cars, Car Models entities with foreign key
* There is one-to-one and one-to-many relationships available between Customer, Owners, Cars and models.
* All entities Cars, Customer, Car Owners,etc are normalized and reduced duplicacy of records.
* We have implemented indexing on each tables of Car Retail Management System tables for fast query execution.

1. **Car Retail Management System entities and their attributes**

* **Cars Entity:**
* car\_id,
* car\_customer\_id,
* car\_number,
* car\_company,
* car\_description
* **Car Models Entity:**
* car\_model\_id
* car\_model\_number
* car\_model\_year
* car\_model\_name
* car\_model\_type
* car\_model\_description
* **Car Owners Entity:**
* owner\_id(liscence number)
* owner\_name
* owner\_mobile
* **Customer Entity:**
* cus\_id(liscence number)
* cus\_name
* cus\_email
* cus\_mobile
* cus\_address

Entity-Relationship Model

**car\_id**

**cm\_year**

**CARS**

**CUSTOMER**

M

**cus\_Lname**

**owner\_mobile**

M

M

1

1

1

M

1

MANAGE

**CAR MODEL**

**cus\_Fname**

**car\_number**

**company**

**cus\_mobile**

**car\_desc**

**car\_type**

**cus\_id**

**HAS**

**CAR OWNER**

**cus\_email**

**car\_number**

**cm\_name**

**cus\_name**

**cm\_id**

**car\_desc**

**customer\_id**

**owner\_id**

**owner\_name**

**own\_Fname**

**own\_Lname**

**cus\_cus\_id**

**add**

**car\_company**

**Owner\_id**

# ER TO RELATIONAL MODEL

**CAR**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **car\_id** | **car\_desc** | **cus\_id** | **car\_number** | **company** | **owner\_id** |

**CAR OWNER**

|  |  |
| --- | --- |
| **owner\_id** | **own\_name** |

**CUSTOMER**

|  |  |  |  |
| --- | --- | --- | --- |
| **Cus\_id** | **Cus\_email** | **Cus\_add** | **Cus\_name** |

**CAR MODEL**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Cm\_id** | **Cm\_name** | **Cm\_year** | **Car\_type** | **Car\_desc** | **Car\_number** |

**CAR OWNER MOBILE**

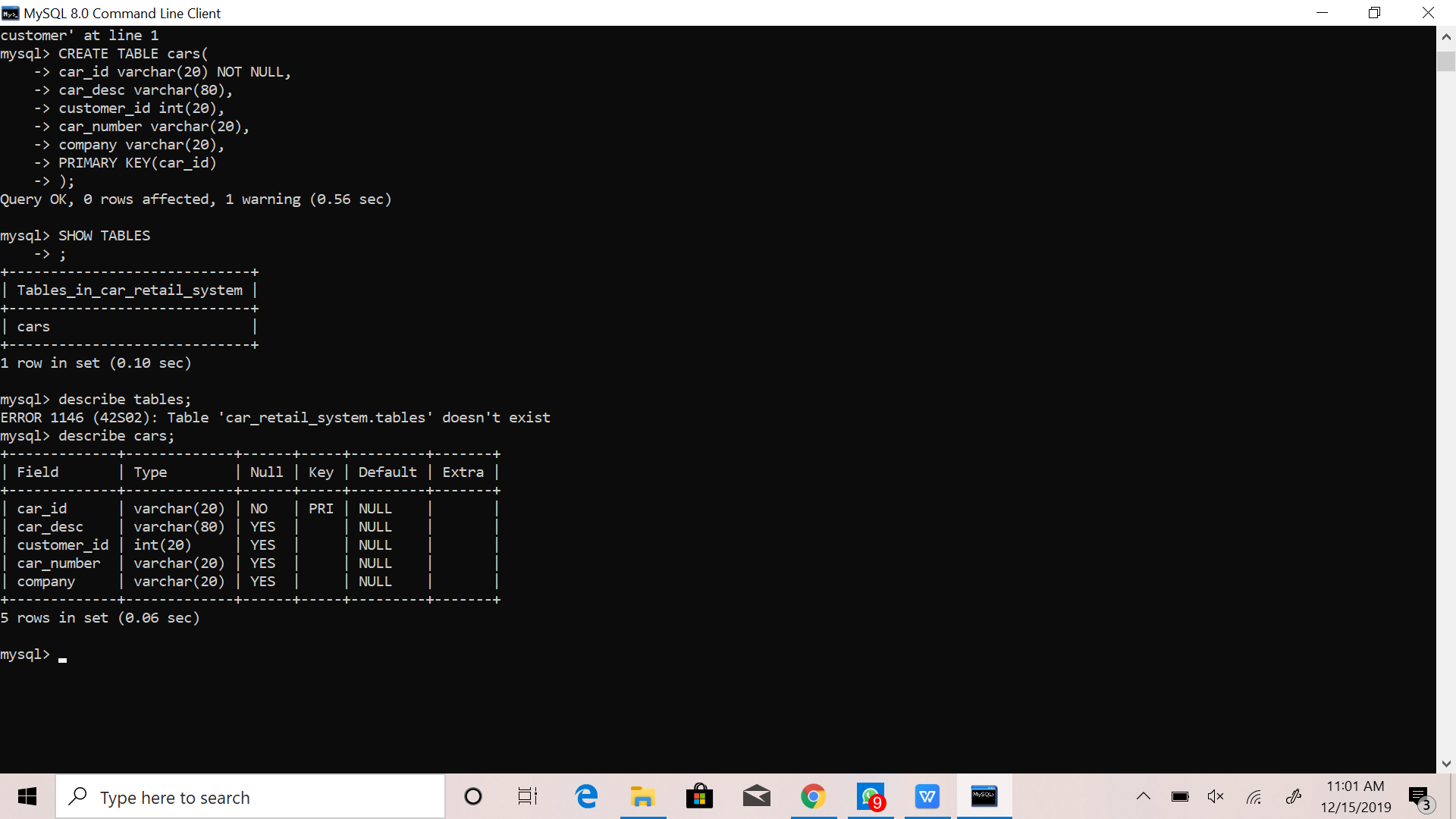
|  |  |
| --- | --- |
| **Owner\_id** | **Owner\_mobile** |

|  |  |
| --- | --- |
| **Cus\_id** | **Cus\_mobile** |

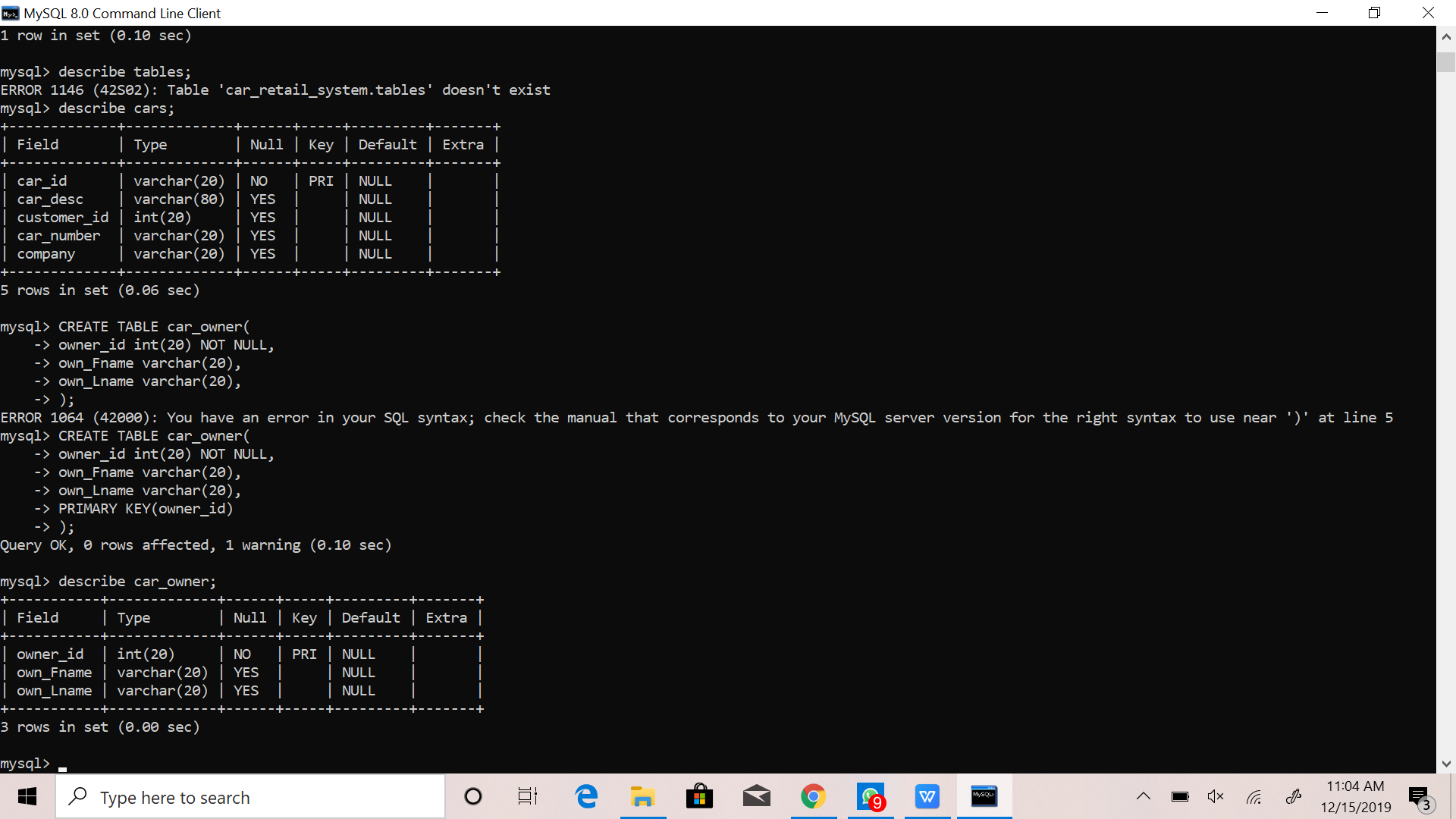
**CUSTOMER MOBILE**

**CREATION OF TABLES**

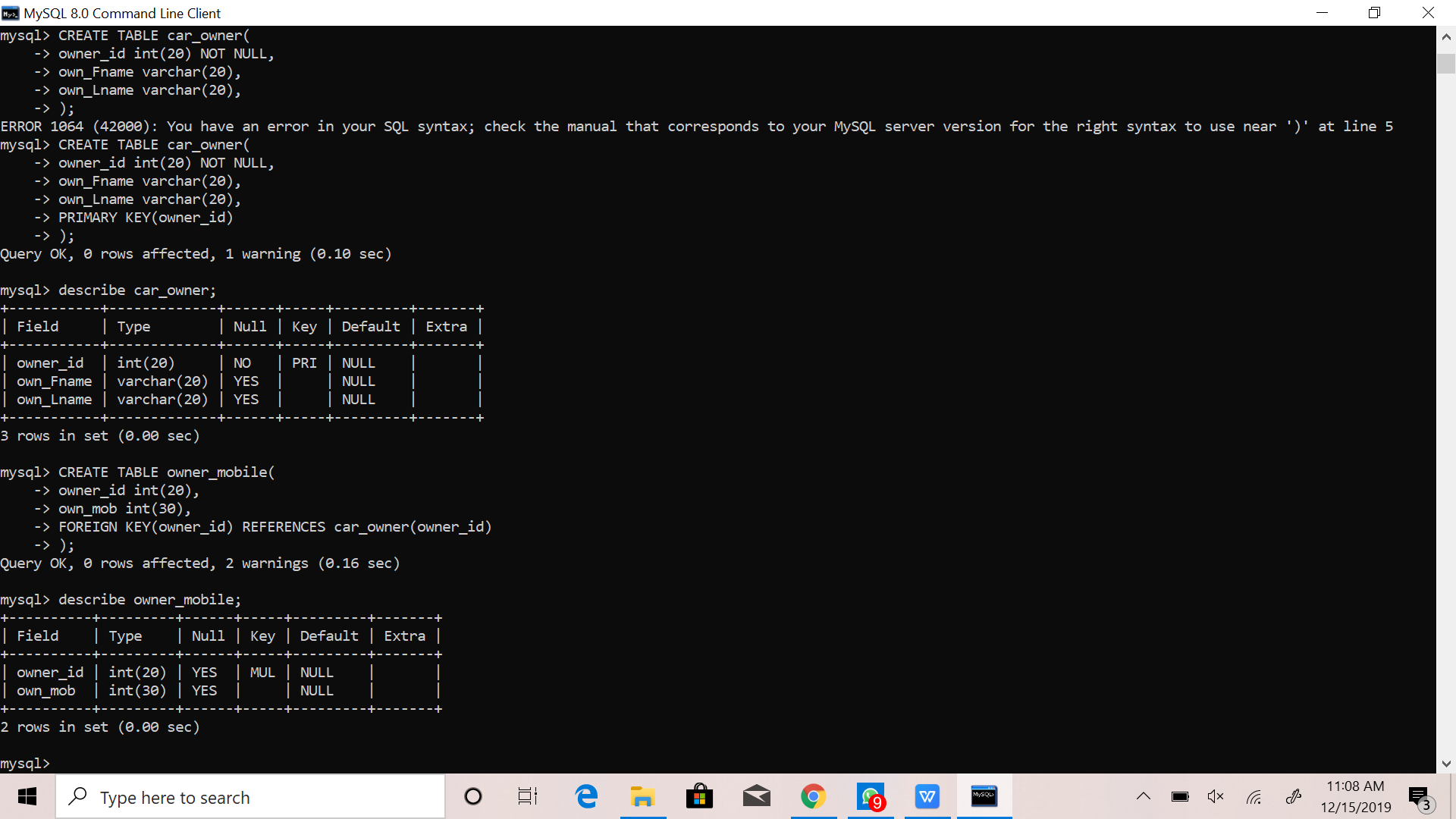
1. **CAR:**

****

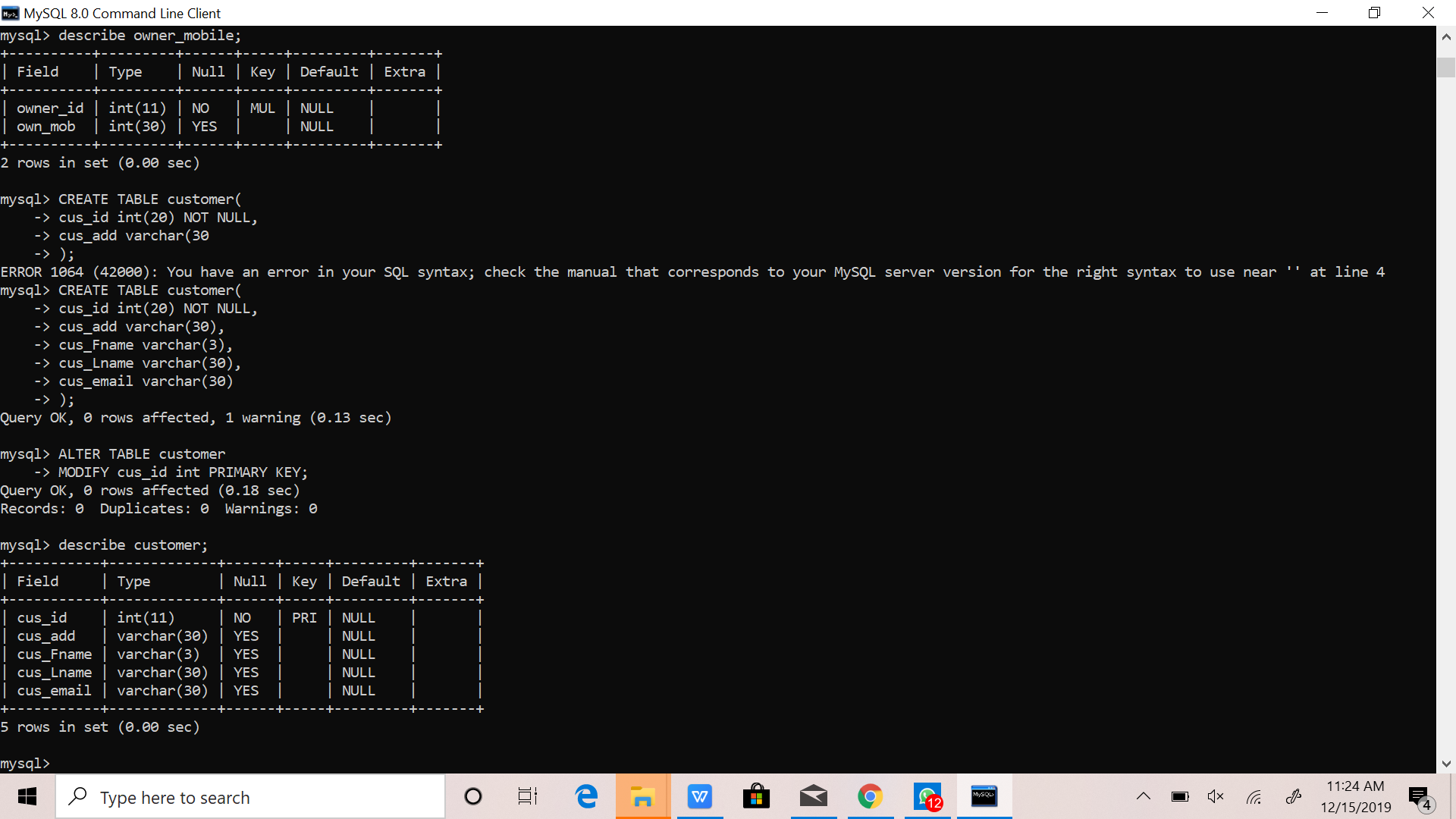
1. **CAR\_OWNER:**

****

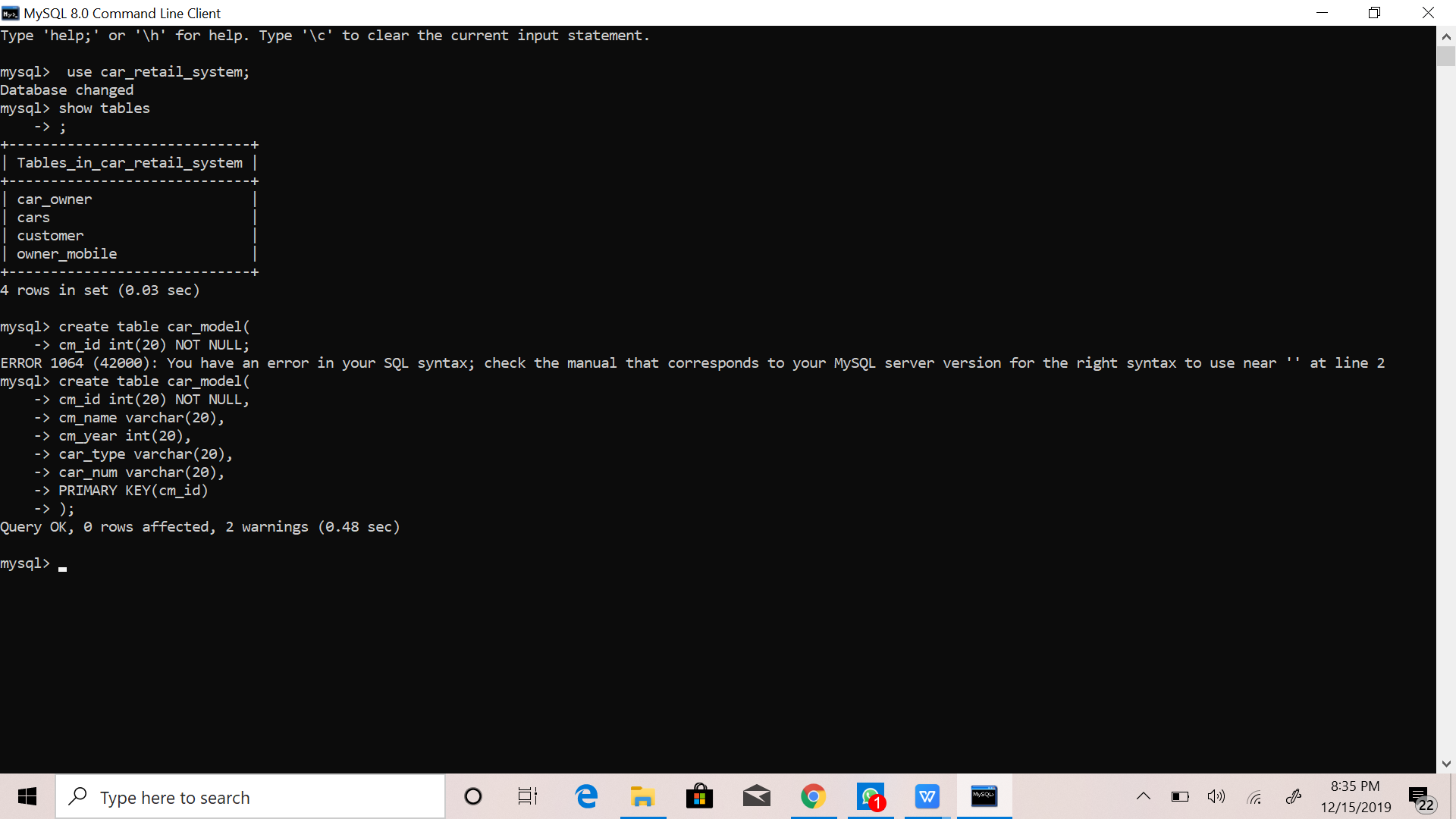
1. **OWNER\_MOBILE:**

****

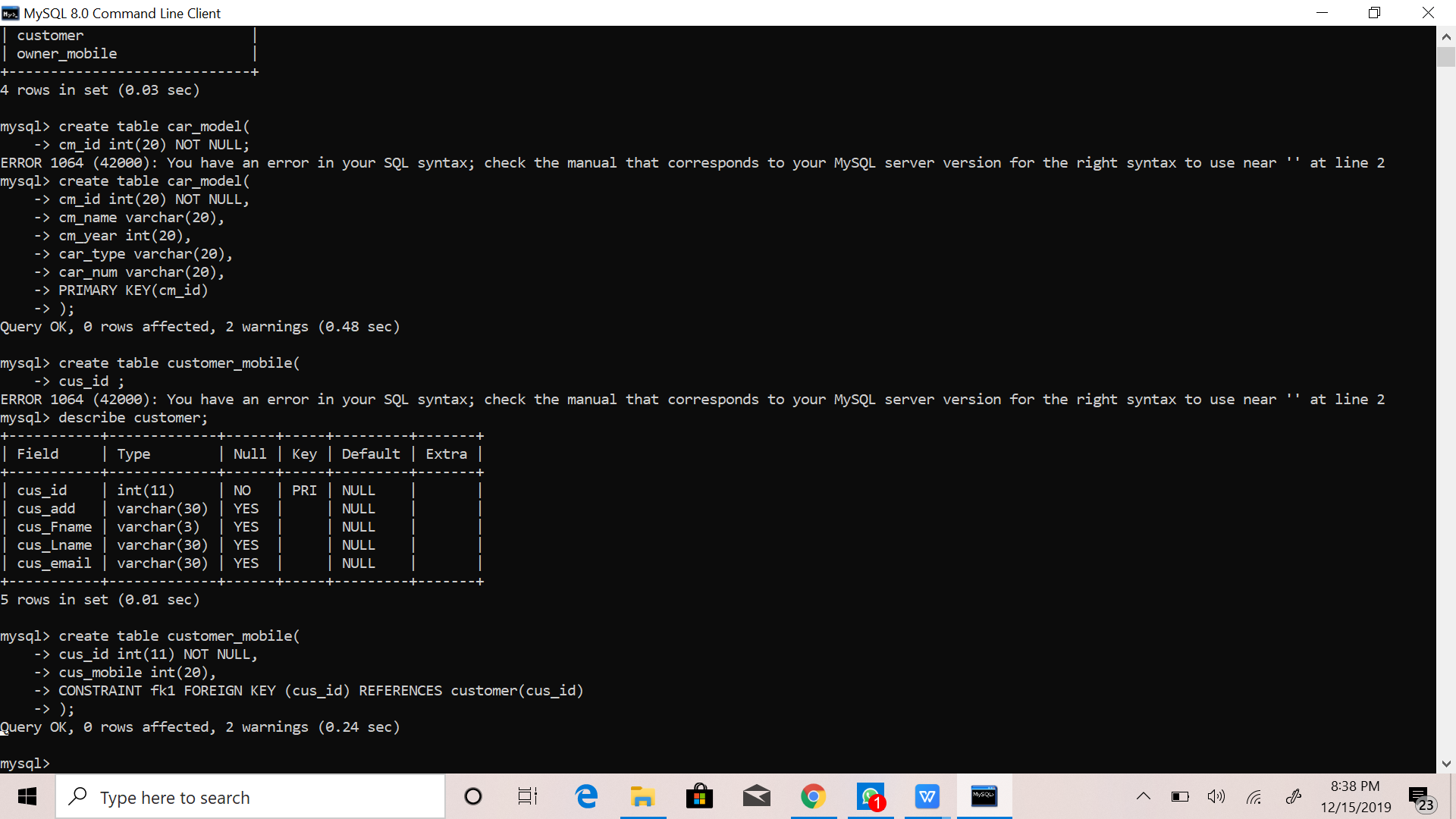
1. **CUSTOMER:**

****

1. **CAR\_MODEL:**

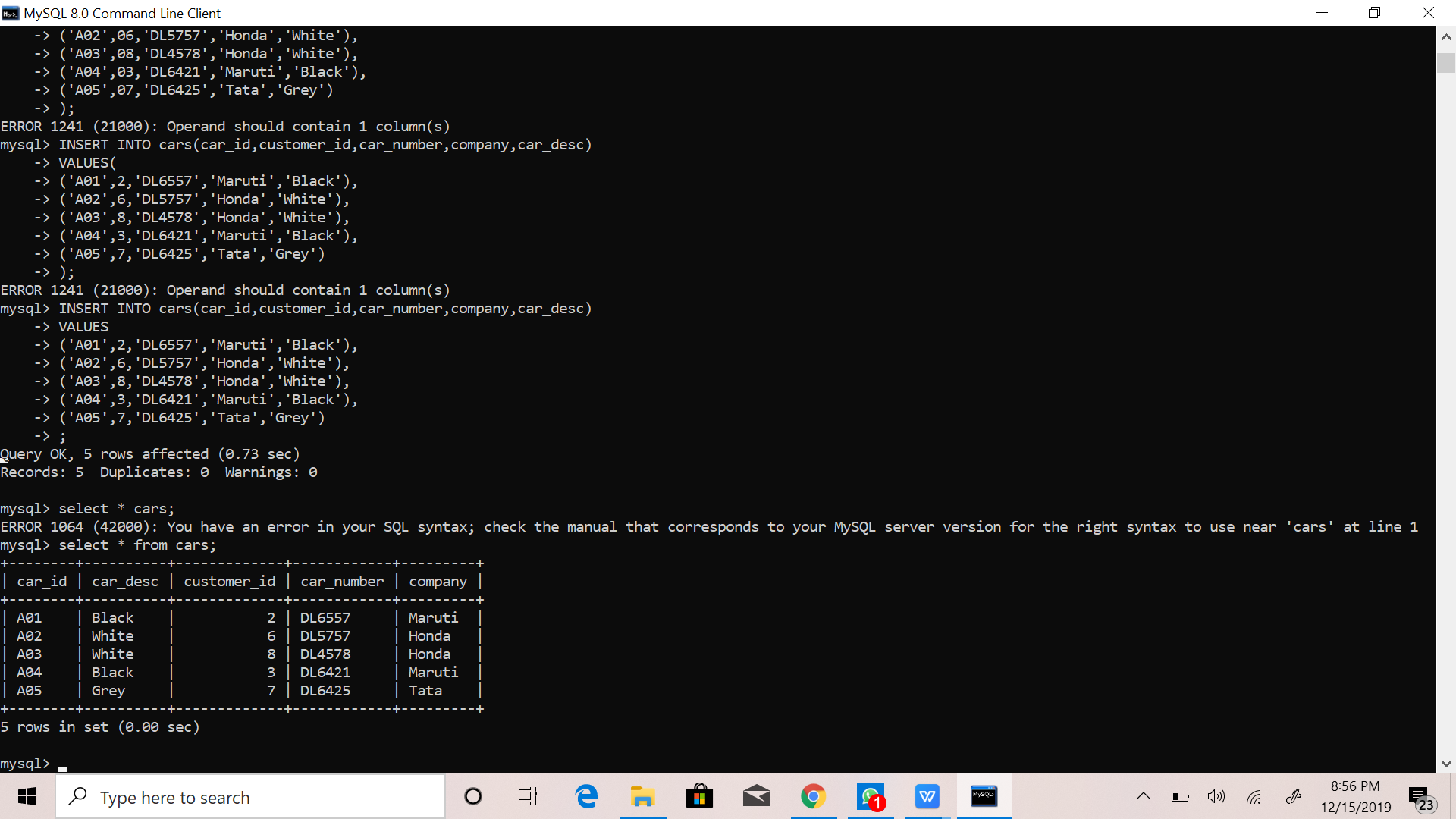
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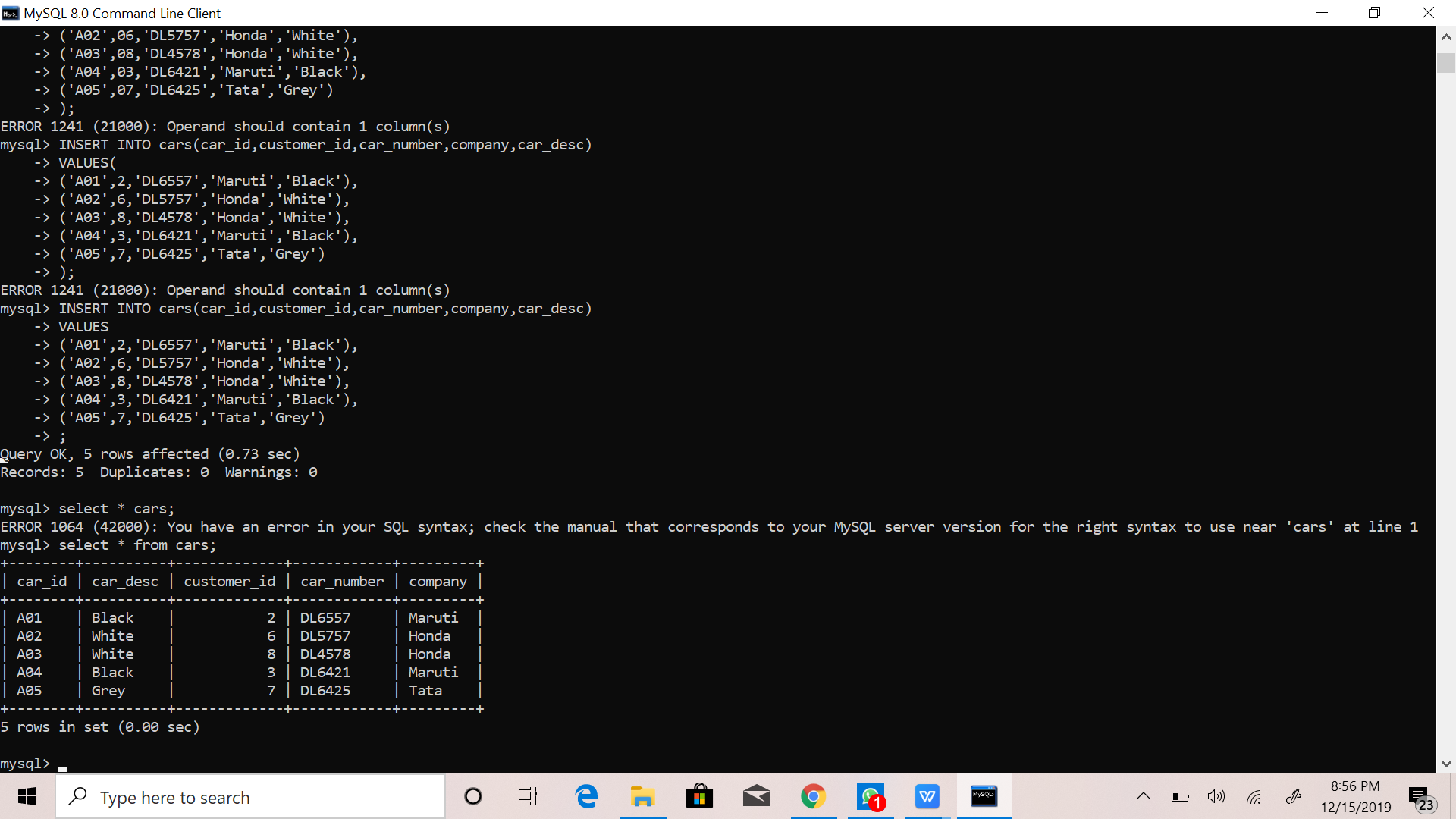
1. **CUSTOMER\_MOBILE**

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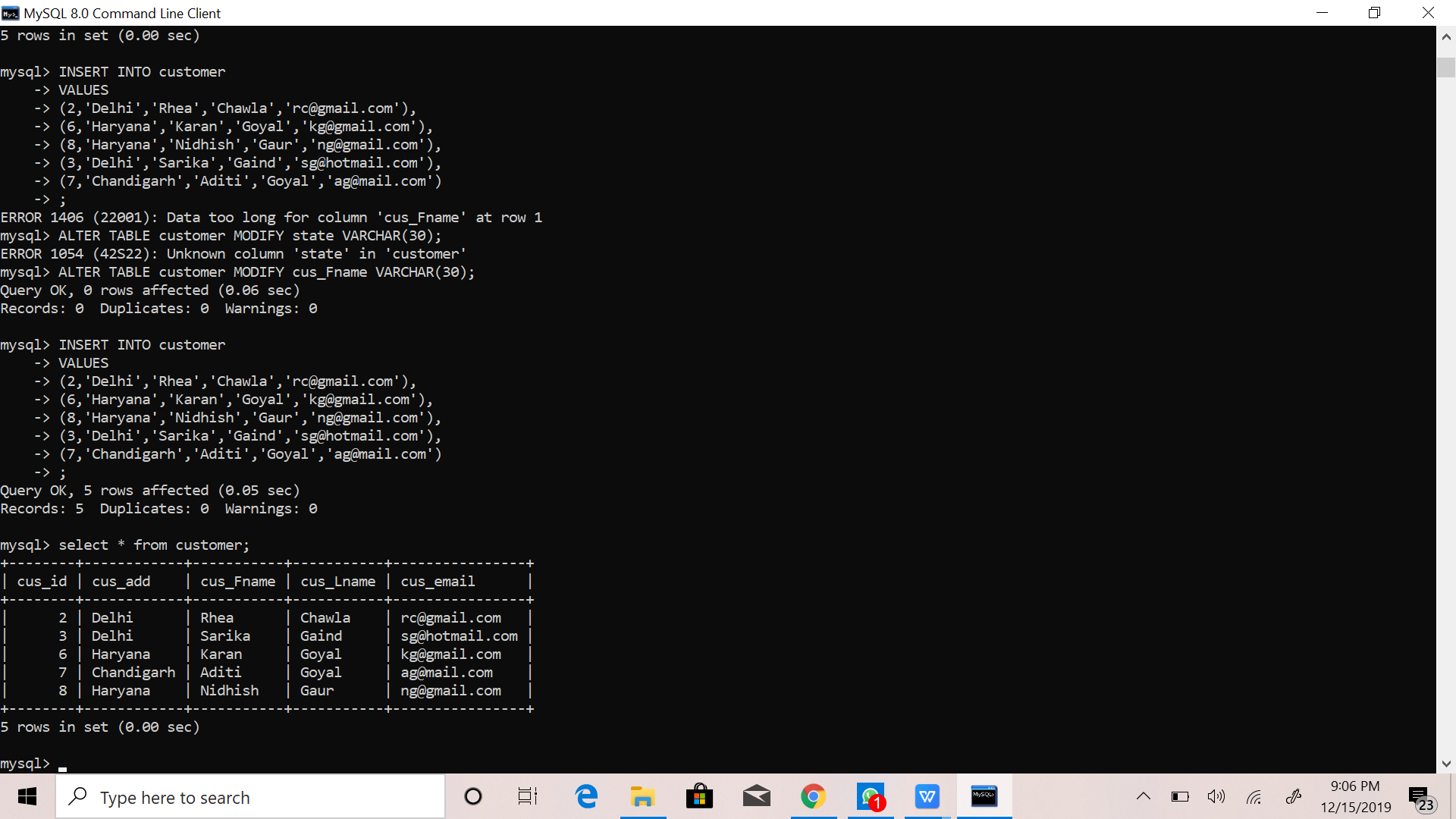
**INSERTION OF TABLES**

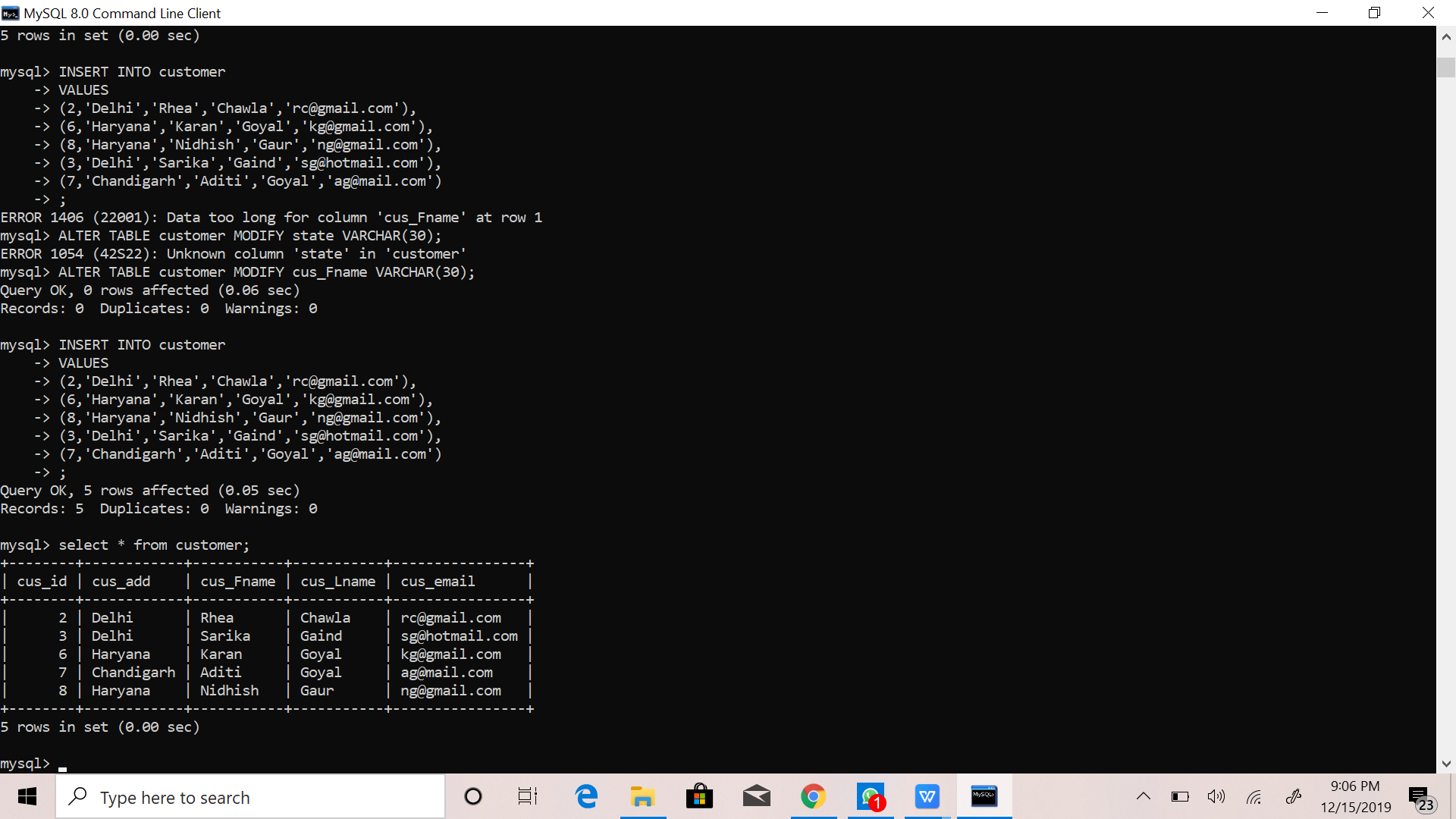
1. **CAR:**

****

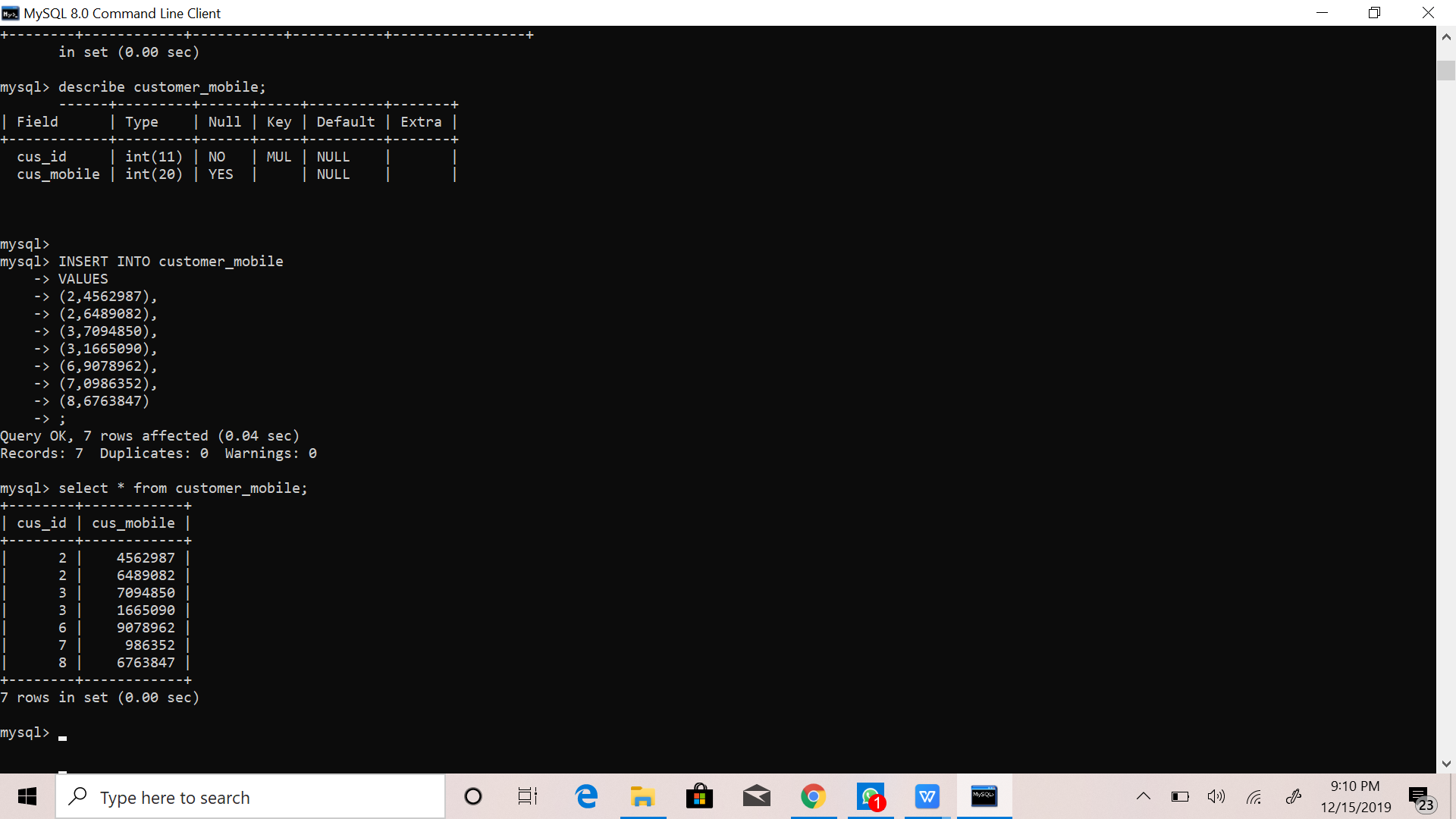
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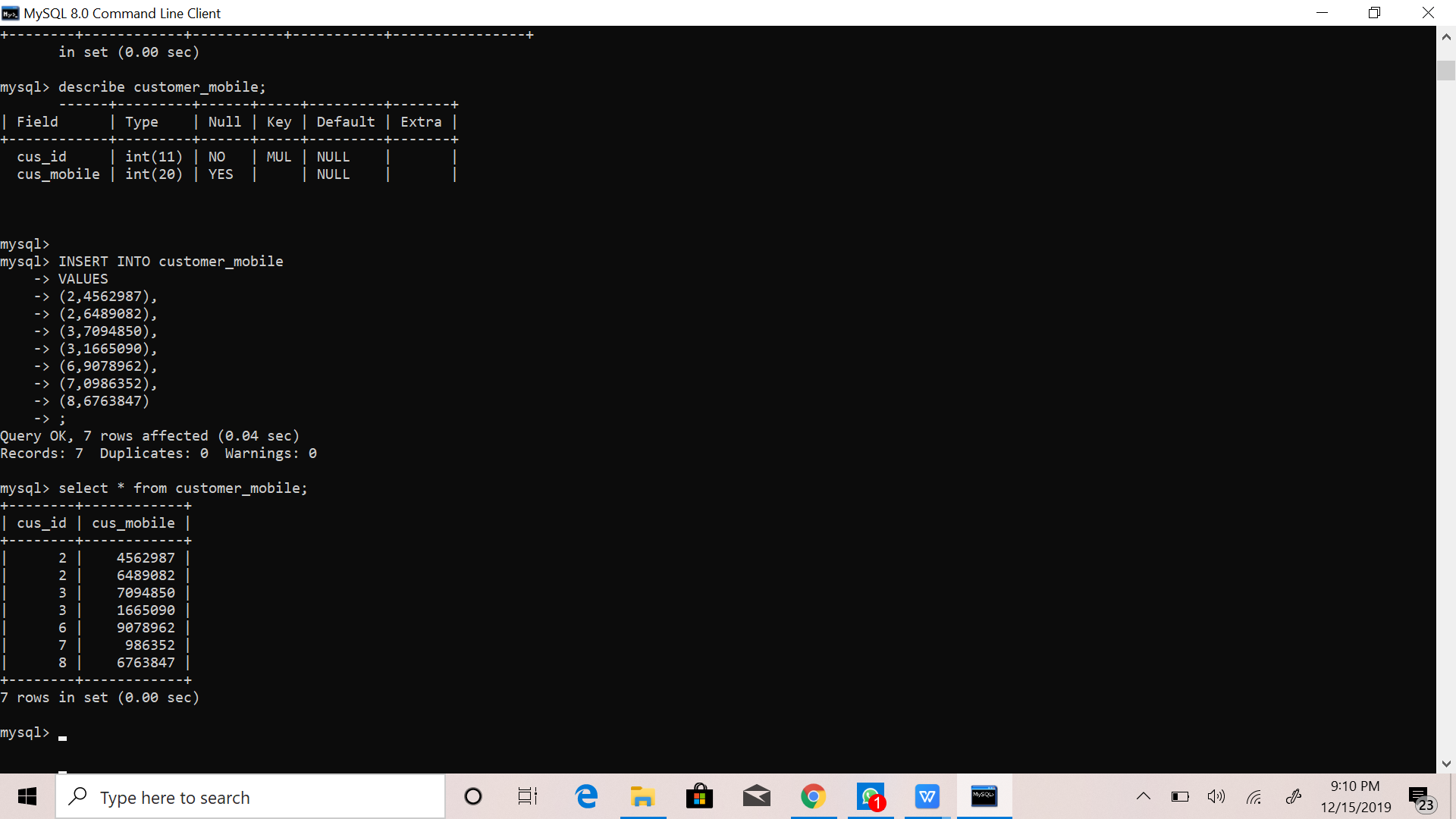
**2) CUSTOMER:**

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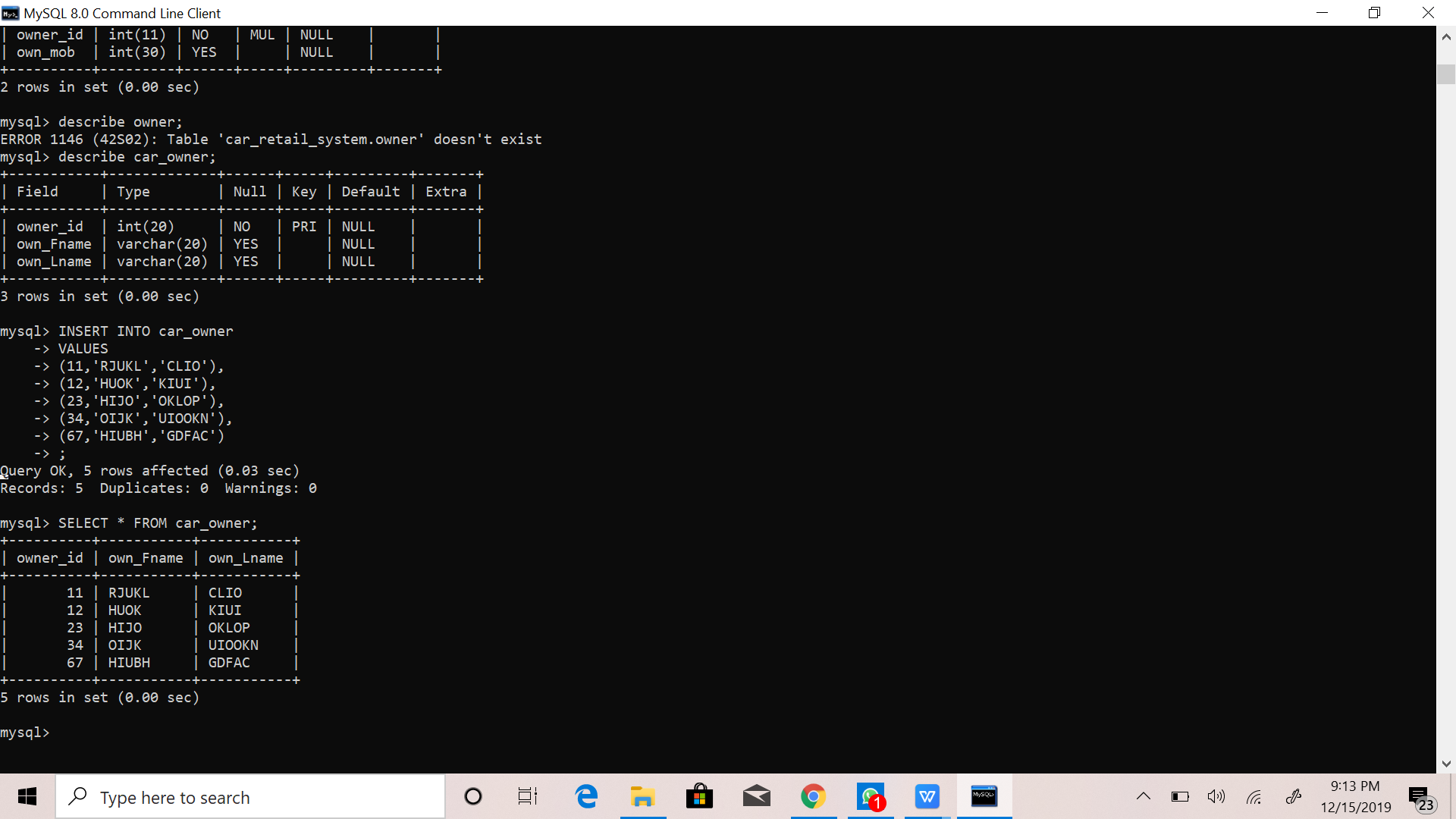
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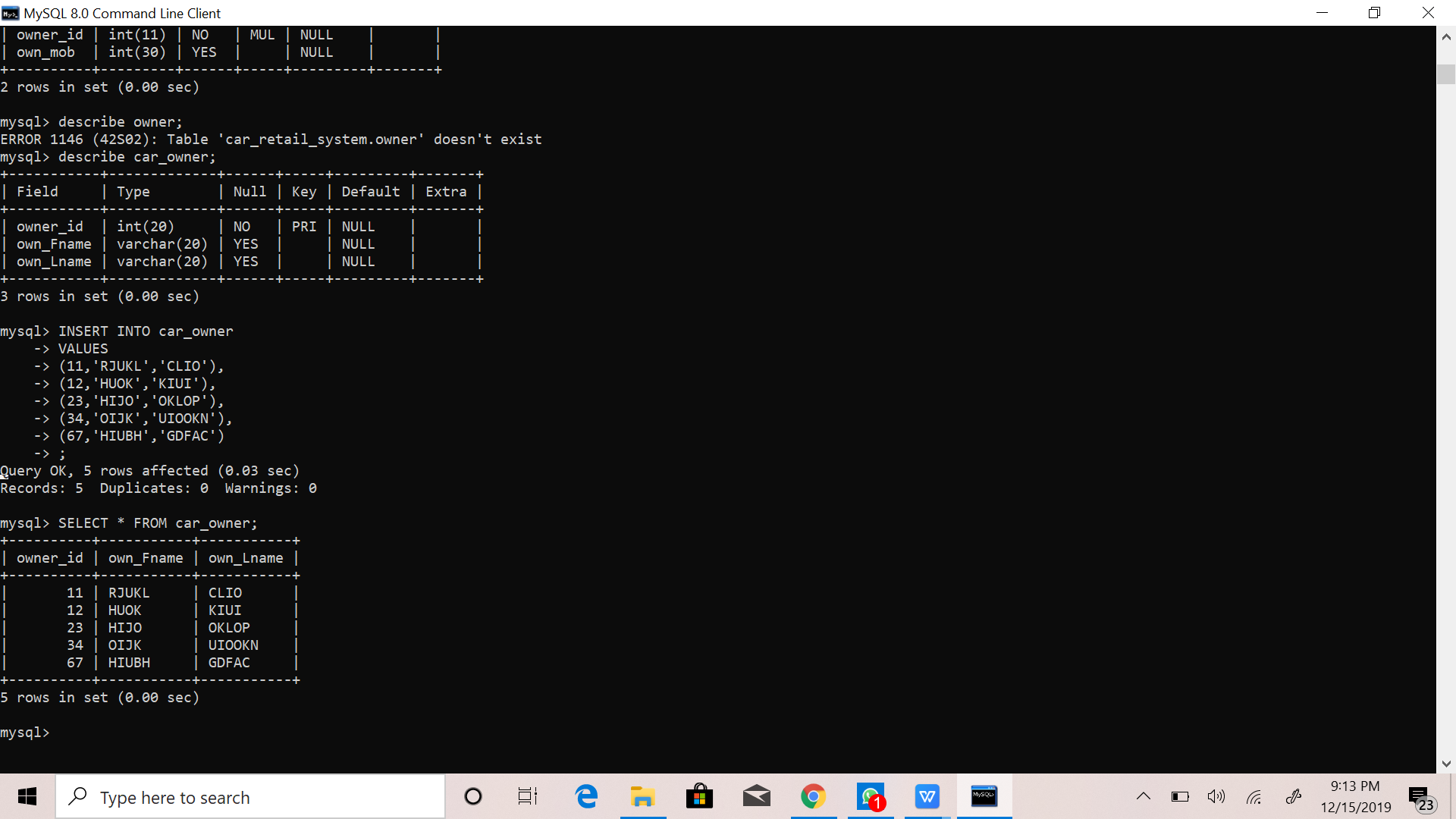
**3)CUSTOMER\_MOBILE:**

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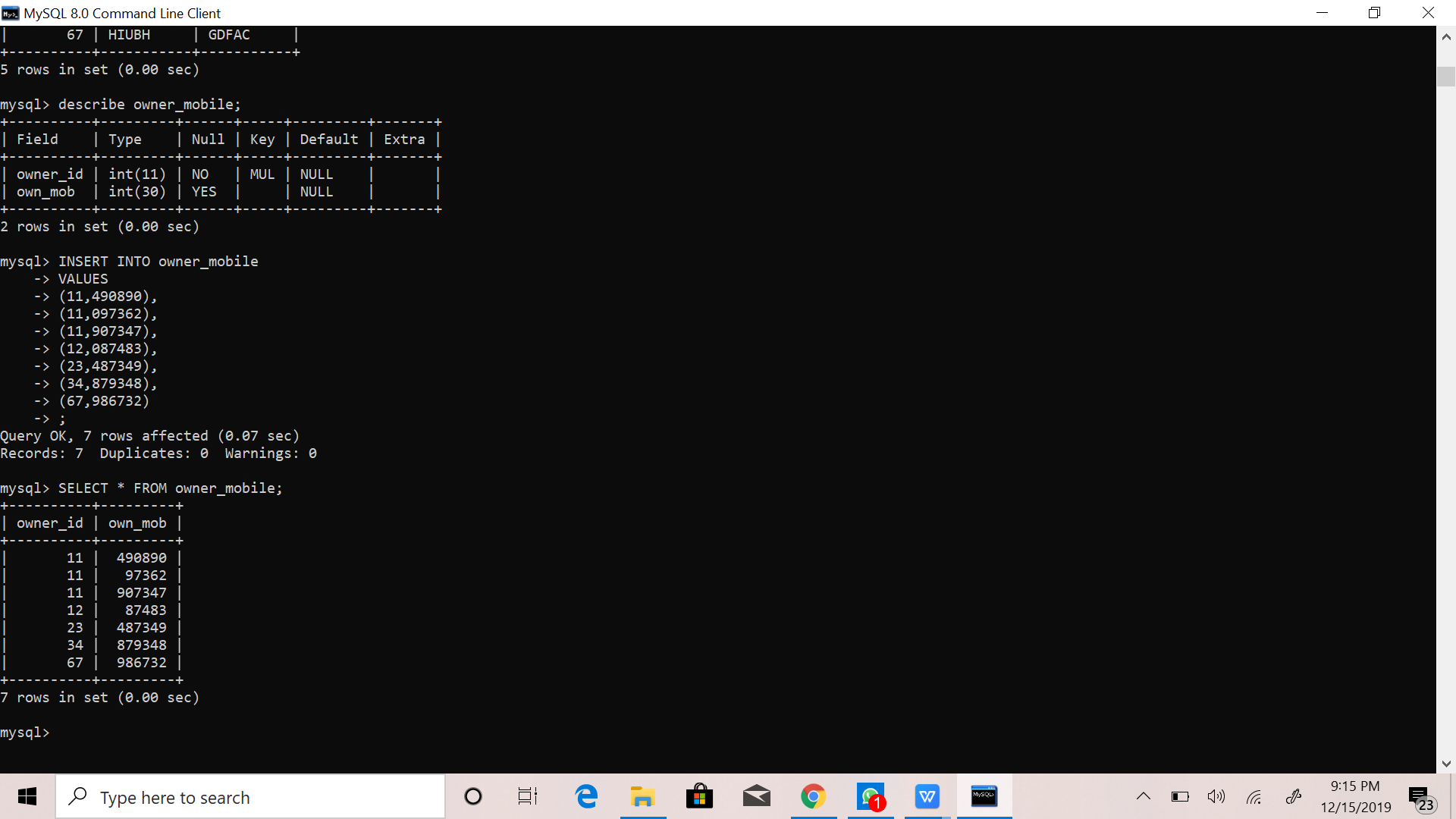
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**4)CAR\_OWNER:**

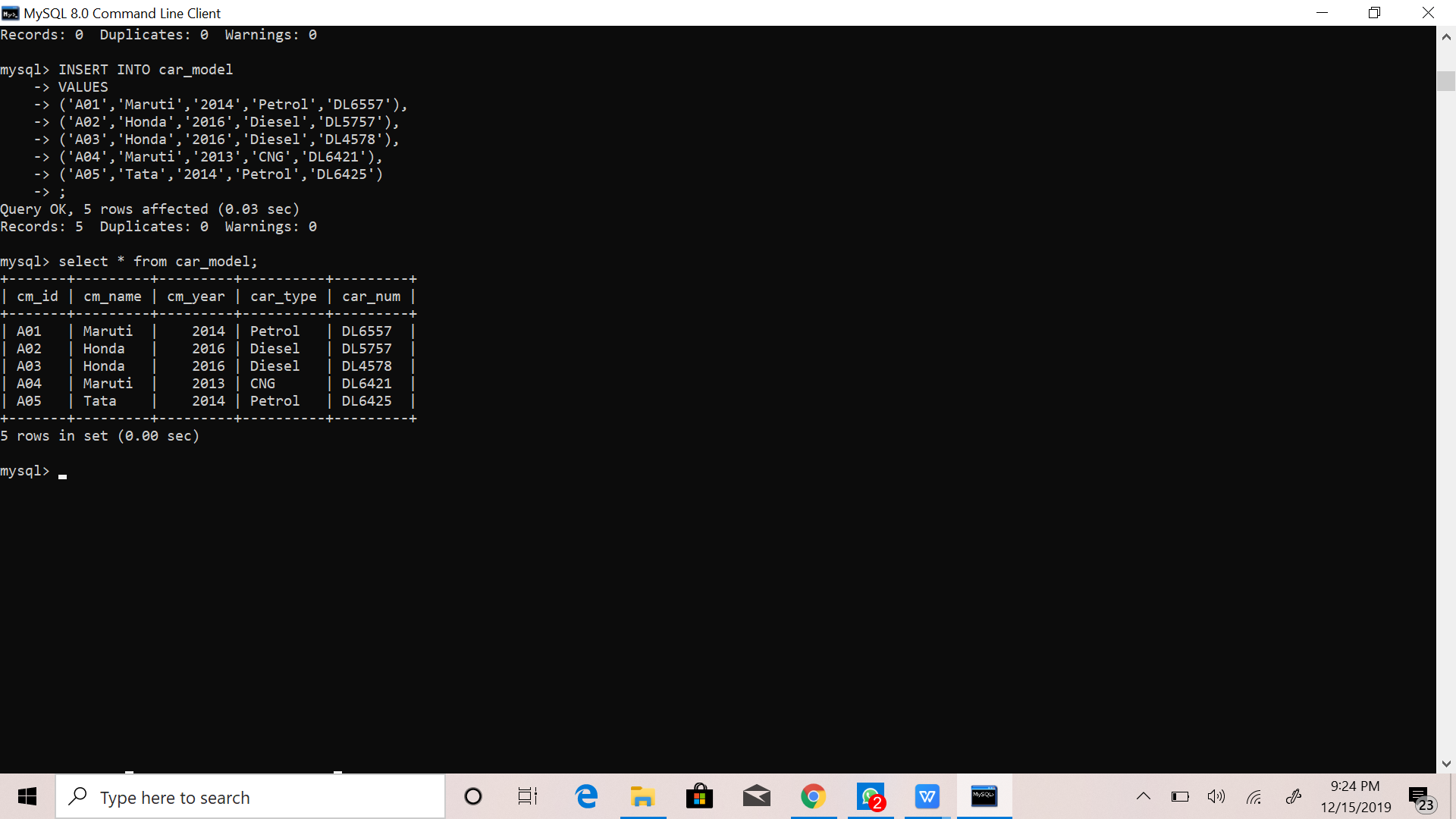
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**5)OWNER\_MOBILE:**

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1. **CAR\_MODEL:**

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**MODIFICATION OF TABLES**