Practices for Lesson 18: Generating Your Database

Chapter 18

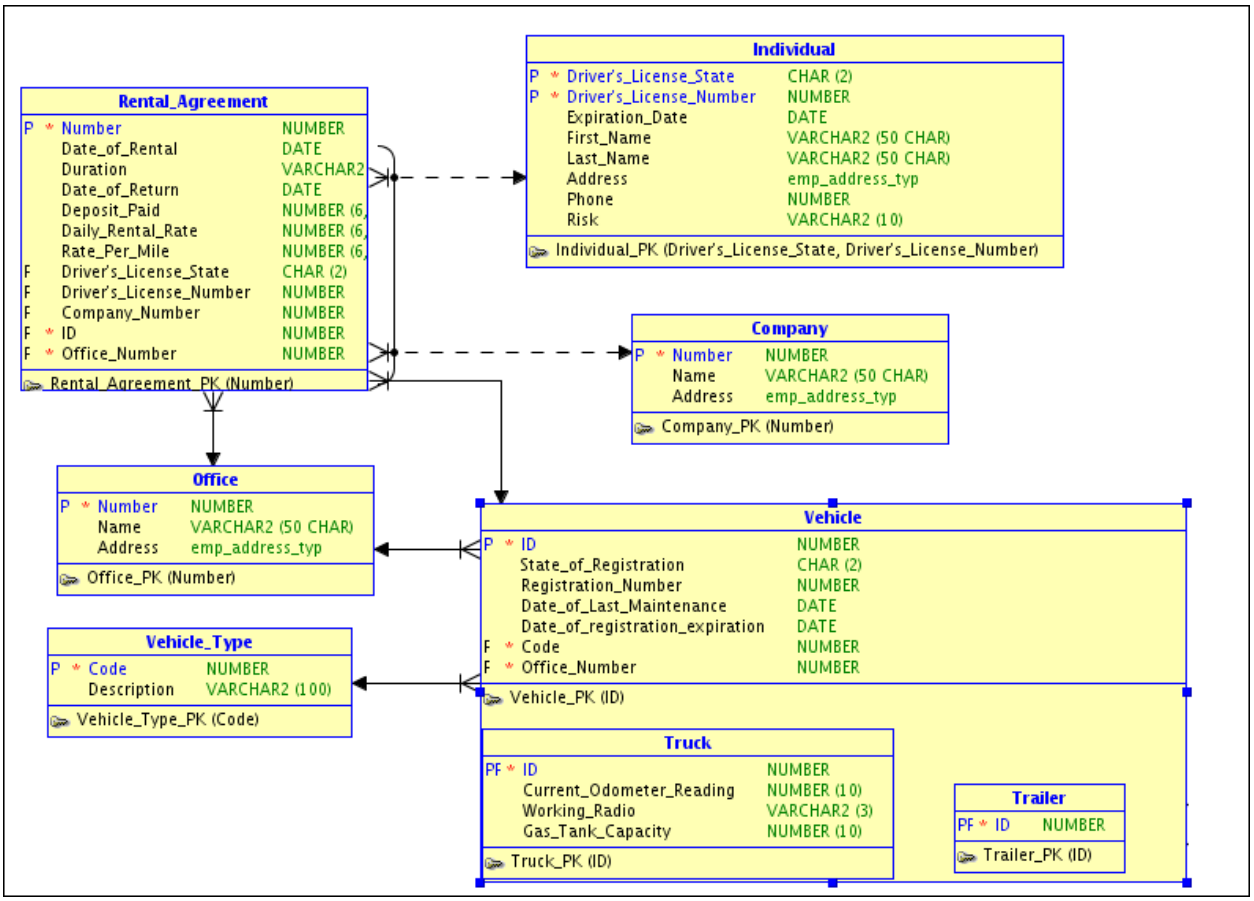
Practice 18-1: Generate DDL

Task

In this practice, you generate the DDL for your database by using the model from the last practice (Practice 17-1).

Keep the following in mind:

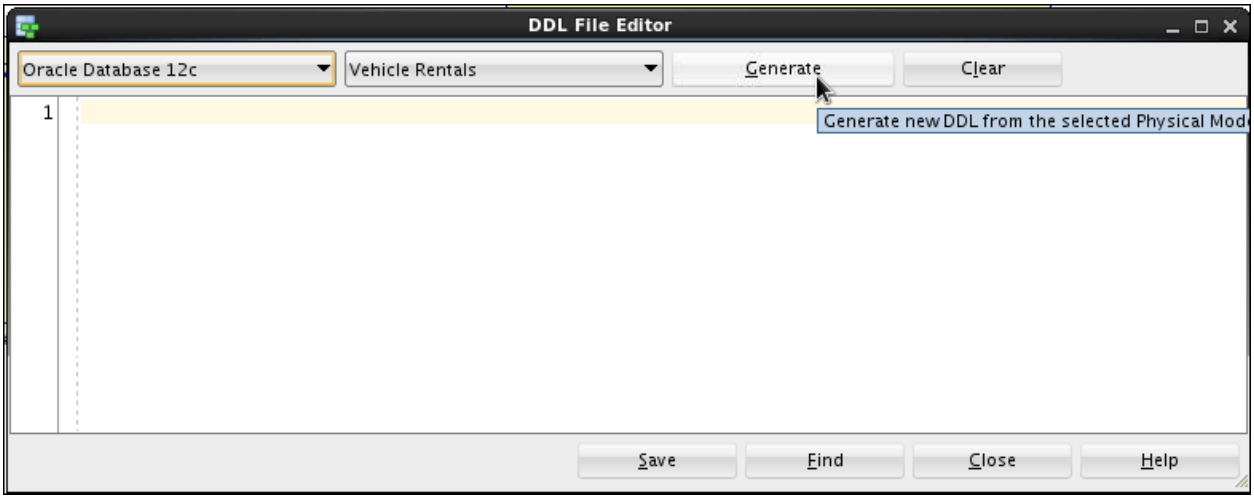
- Every table must have a prefix of `V_`.
- If there are any errors, make appropriate changes to the model and regenerate the DDL.



Solution 18-1: Generate DDL

The following is one possible solution to this practice.

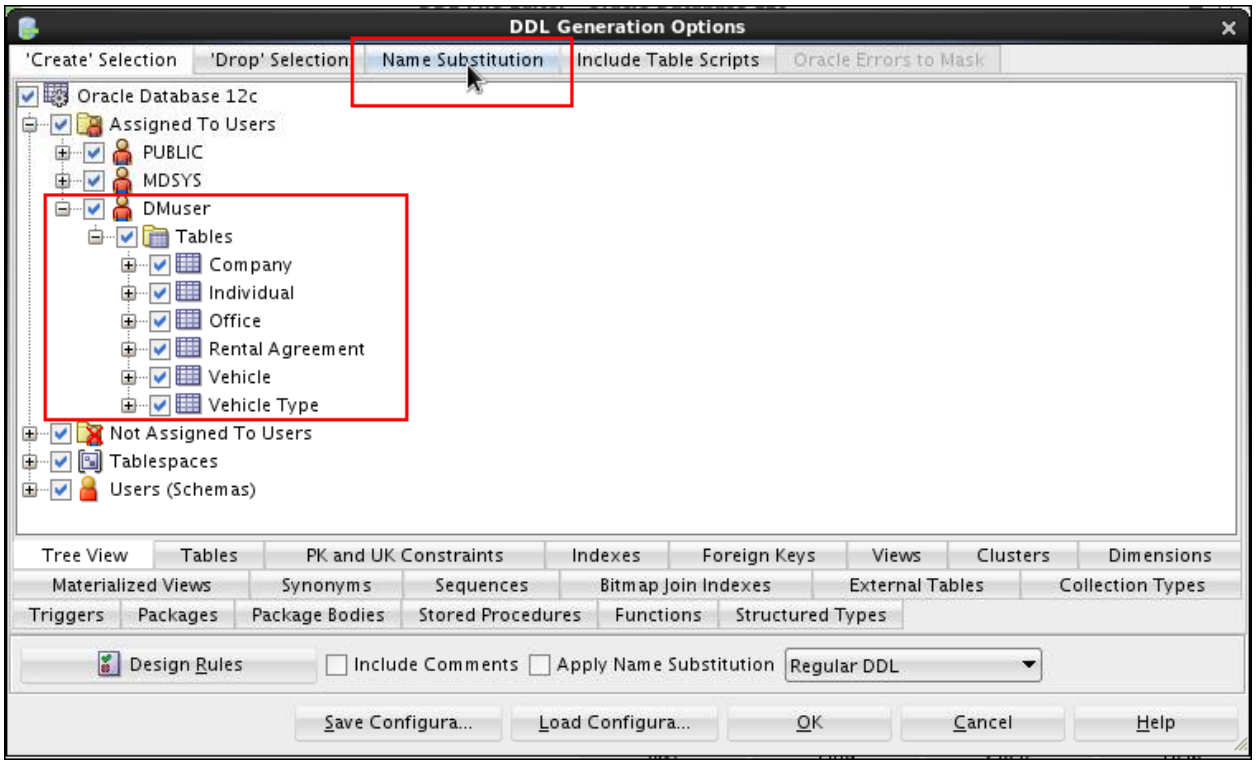
1. Open the solution to practice 17-1 (`sol_17_01.dmd`) or use your completed work from Practice 17-1.
2. Delete the Truck and the Trailer tables.
3. Click the **Generate DDL** icon. The **DDL File Editor** dialog box is displayed.
4. Make sure that **Oracle Database 12c** is selected, and then click **Generate**.



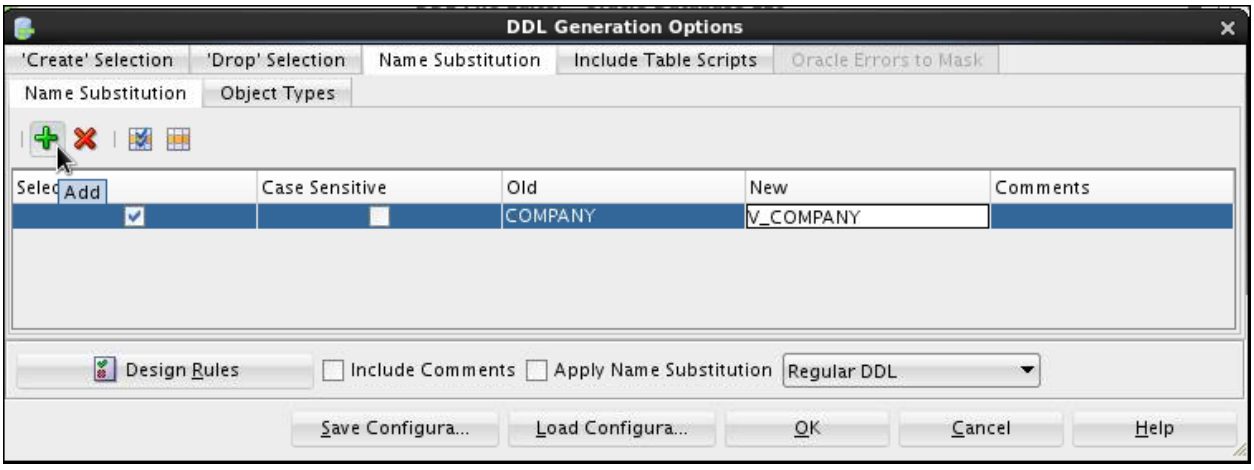
5. Expand **Assigned To Users > DMuser > Tables** to see the list of tables that will be generated. Click the **Name Substitution** tab. The **DDL Generation Options** dialog box is displayed.

   Note: If you do not see **Assigned Users** in the **DDL Generation Options** dialog box, exit the dialog box, and then perform the following steps:

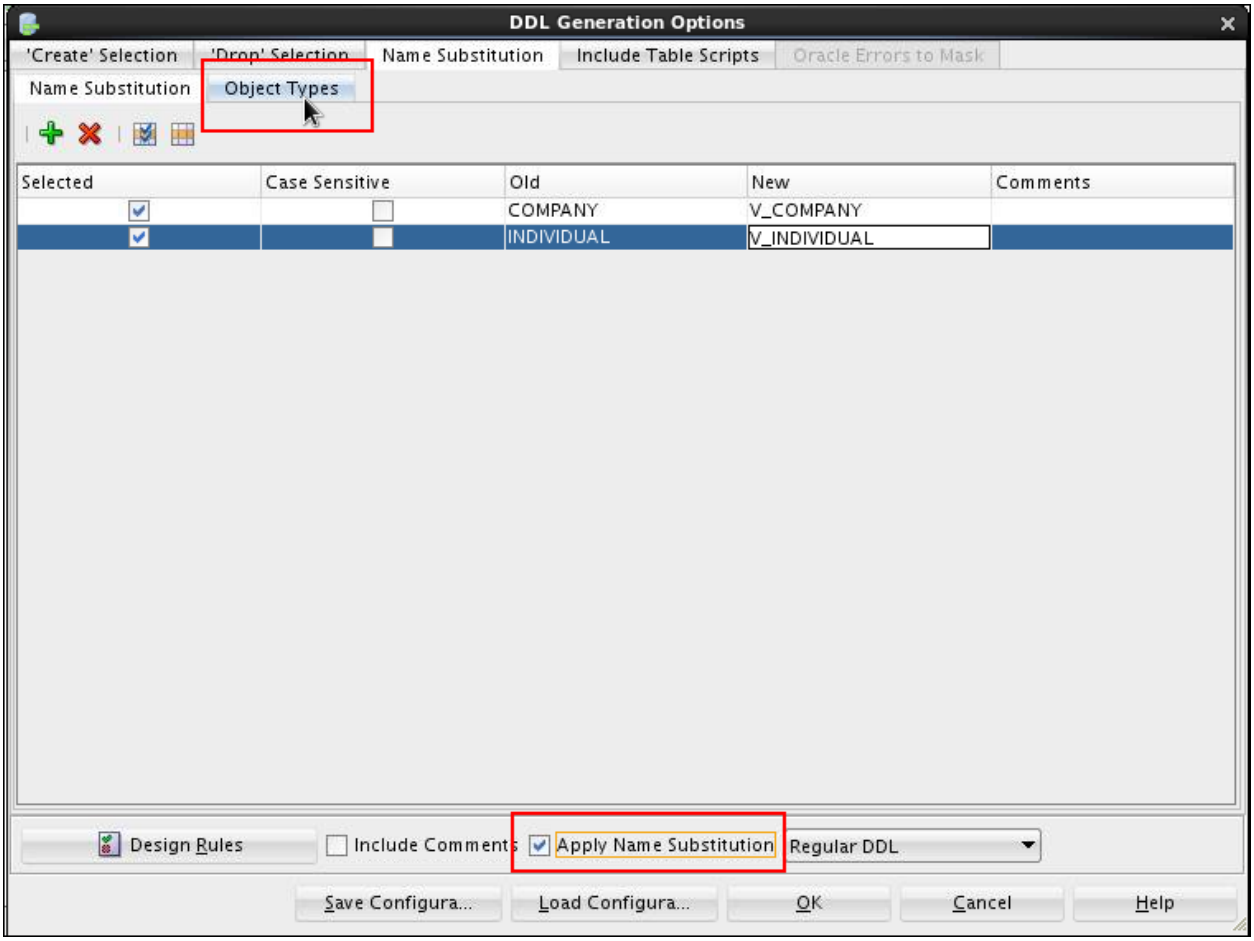
   In **Object Browser**, expand **Relational Models > Vehicle Rentals > Physical Models > Oracle Database 12c**. If the **Oracle Database 12c** node does not have a "**+**" sign next to it, right-click it, and then select **Open** from the pop-up menu. Next, go back and re-do the steps starting with step 3.



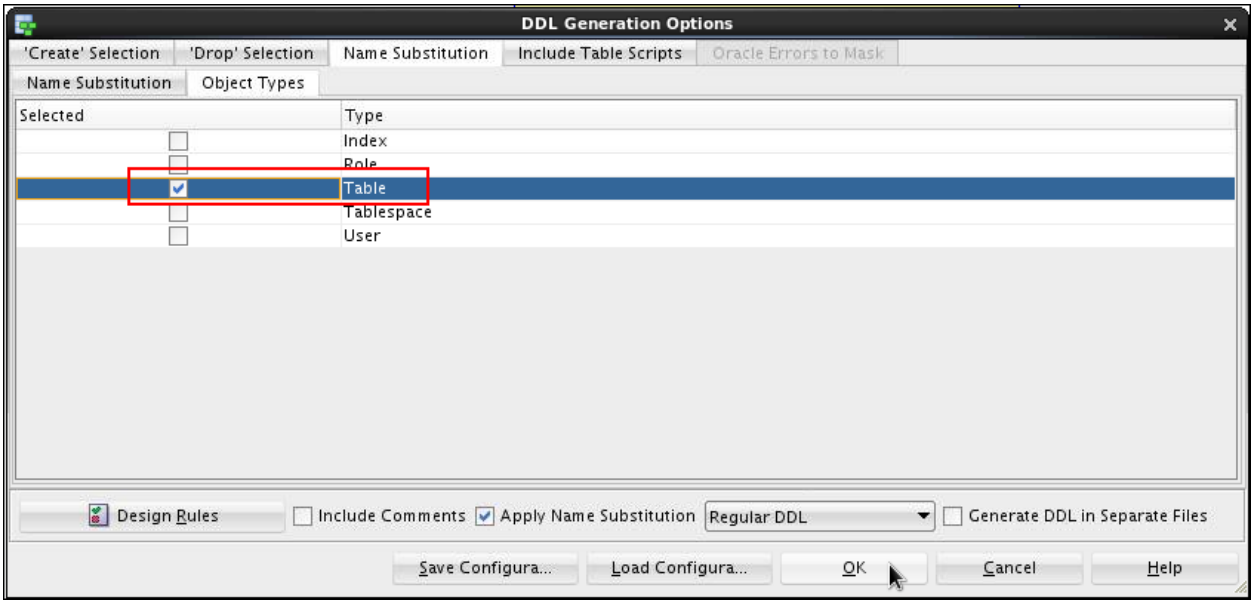
6. You want the `Company` and `Individual` tables to be generated with a `V_` prefix. Click the **Add** icon.
7. Click the Selected check box and enter `COMPANY` for **Old** and `V_COMPANY` for **New**, and then click the **Add** icon.



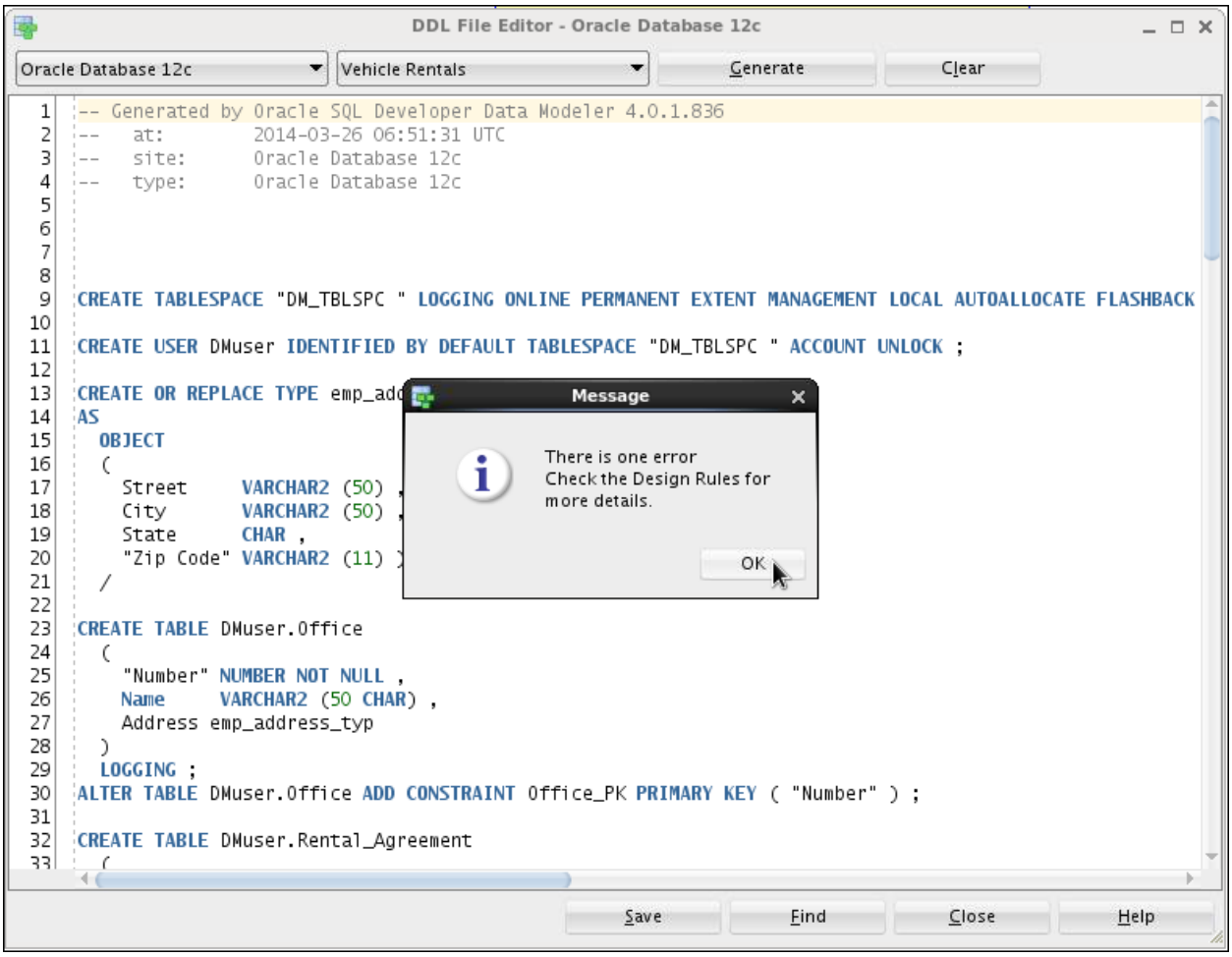
8. Click the Select check box, and enter `INDIVIDUAL` for **Old** and `V_INDIVIDUAL` for **New**. Select the **Apply Name Substitution** check box, and then click the **Object Types** tab.



9. Make sure that the **Table** check box is selected, and then click **OK**.

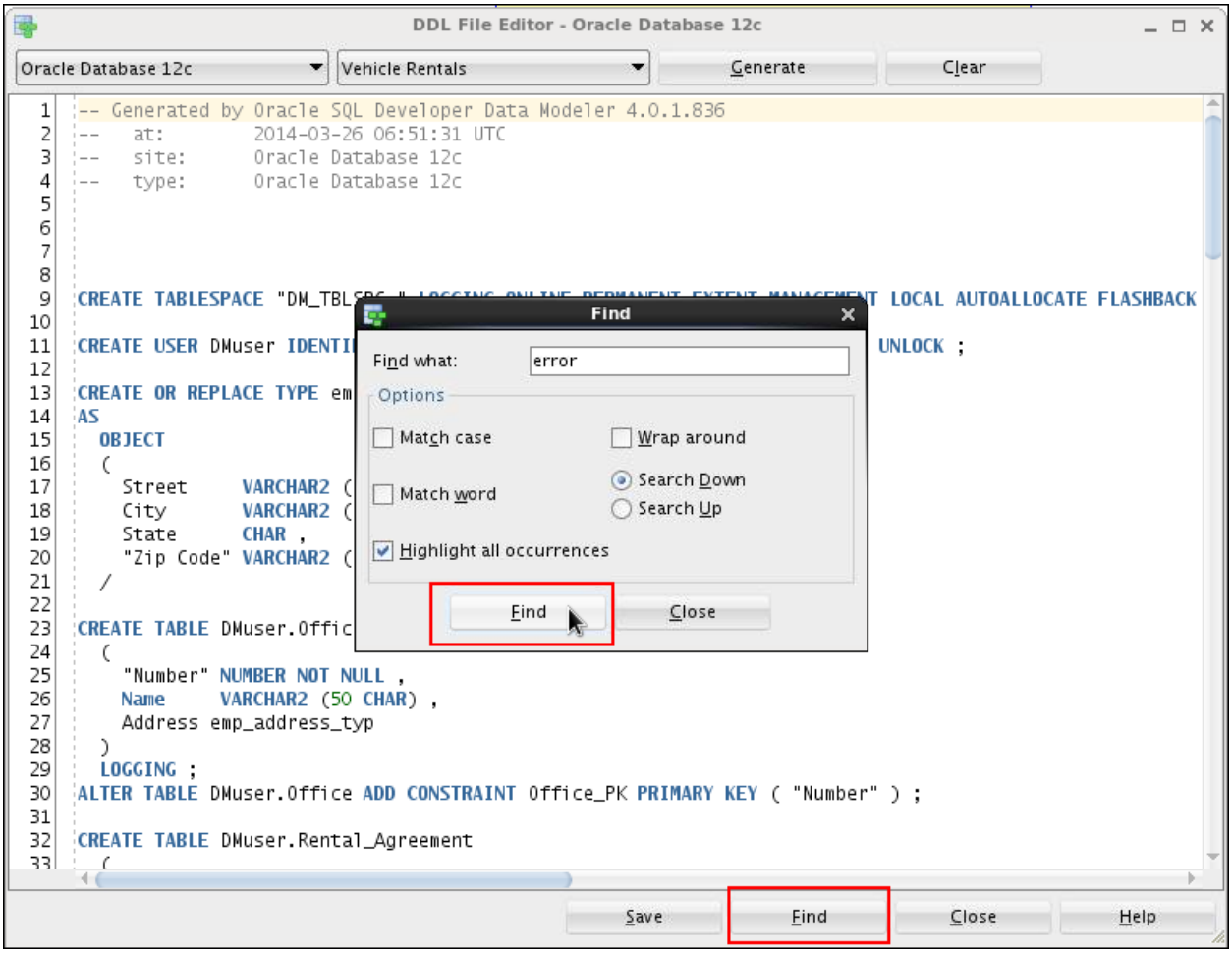


10. The DDL is generated. A **Message** dialog box is displayed indicating one error. Click **OK**.

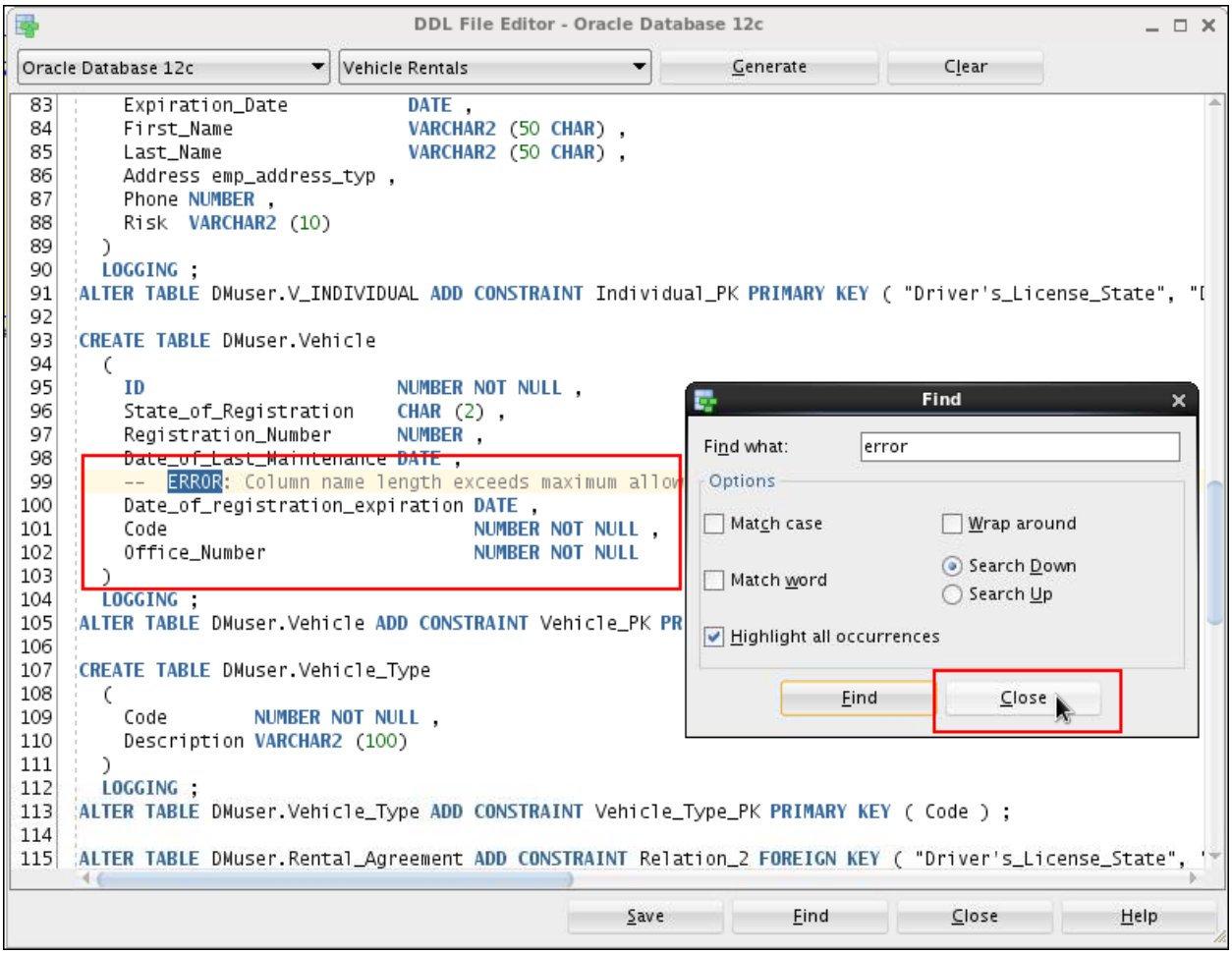


11. You can search for the error. Click the **Find** button.

12. Enter `error` in the **Find what** text box, and then click **Find**.

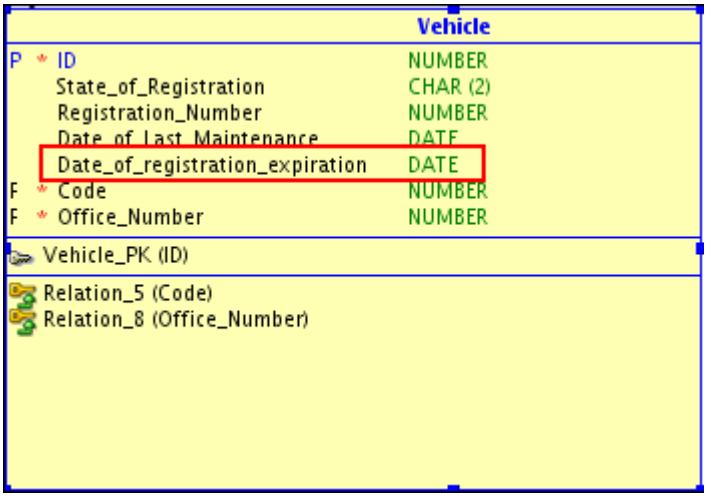


13. The error is displayed. It is due to a column length being too long. Click **Close** in the **Find** dialog box.



14. Click **Close** again.

15. Go back to your relational model and change the name of the column for `Date of registration expiration` in the `Vehicle` table to `Reg Exp Date`.



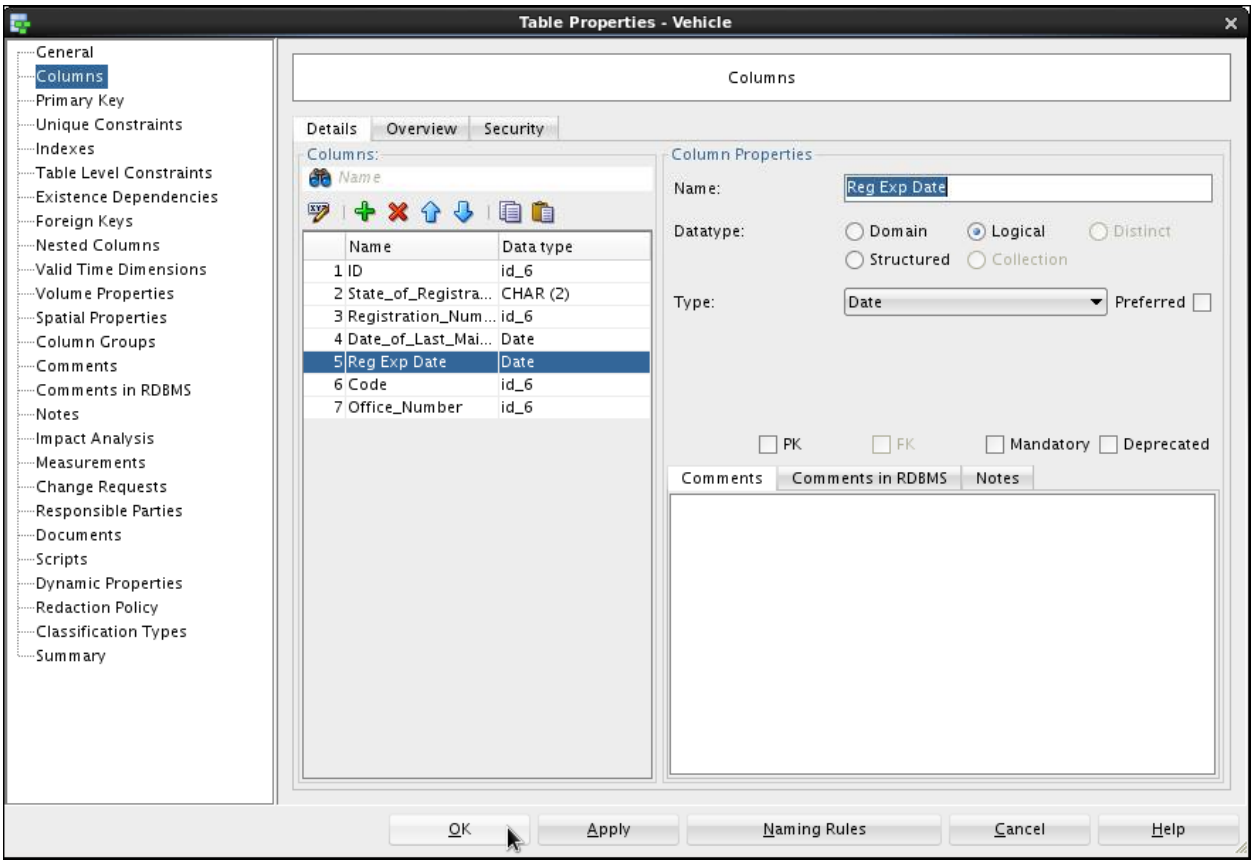
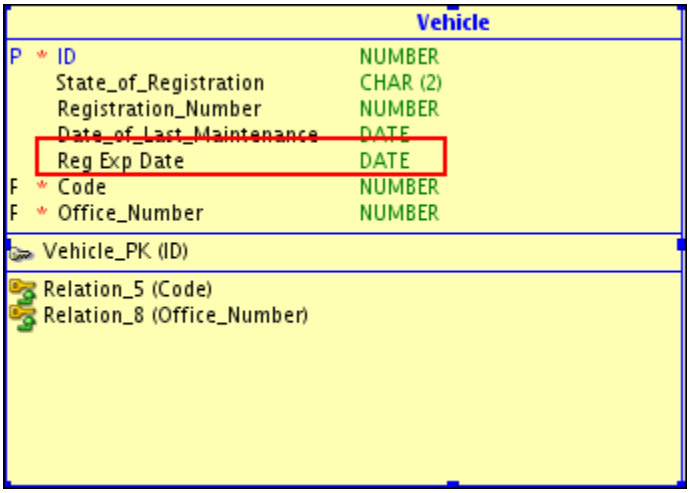
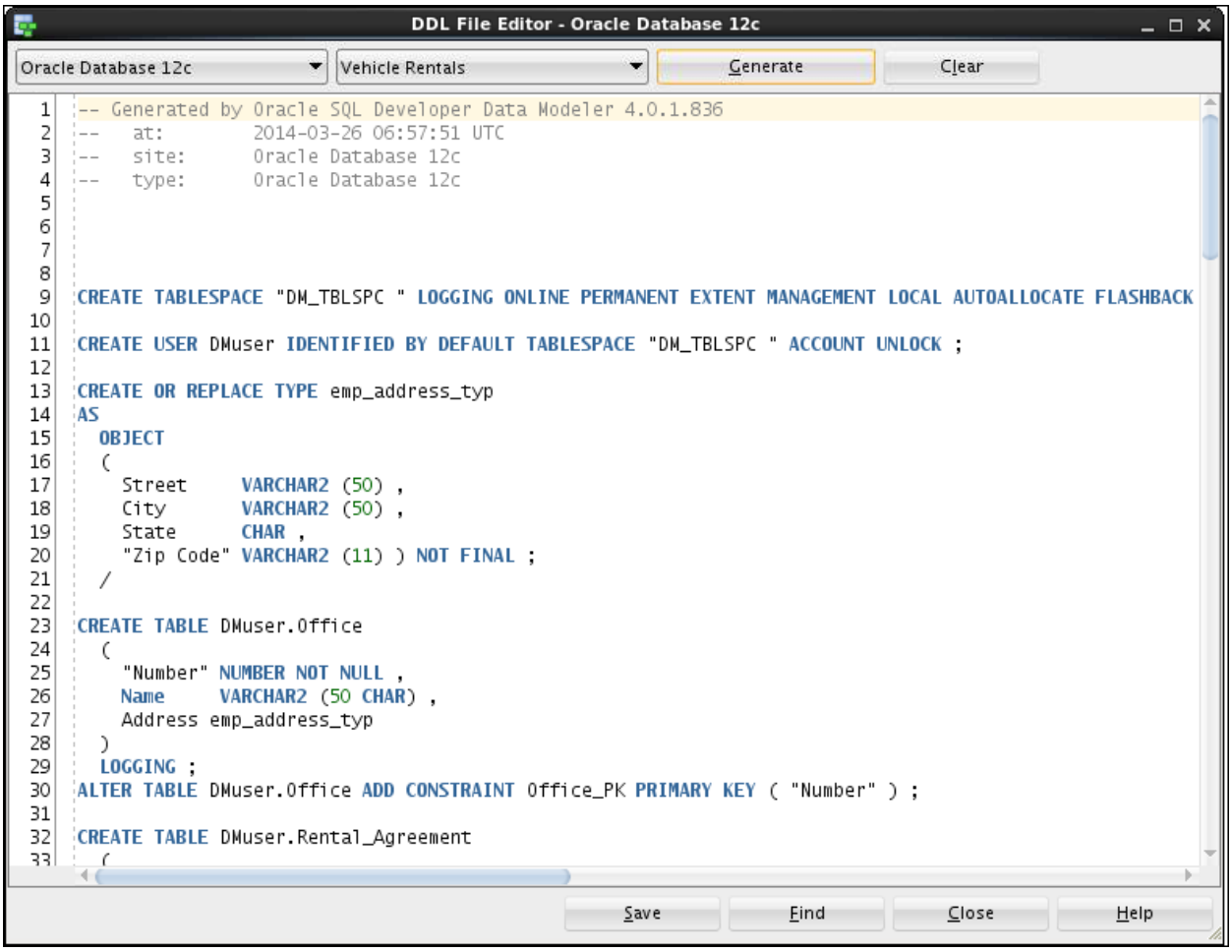
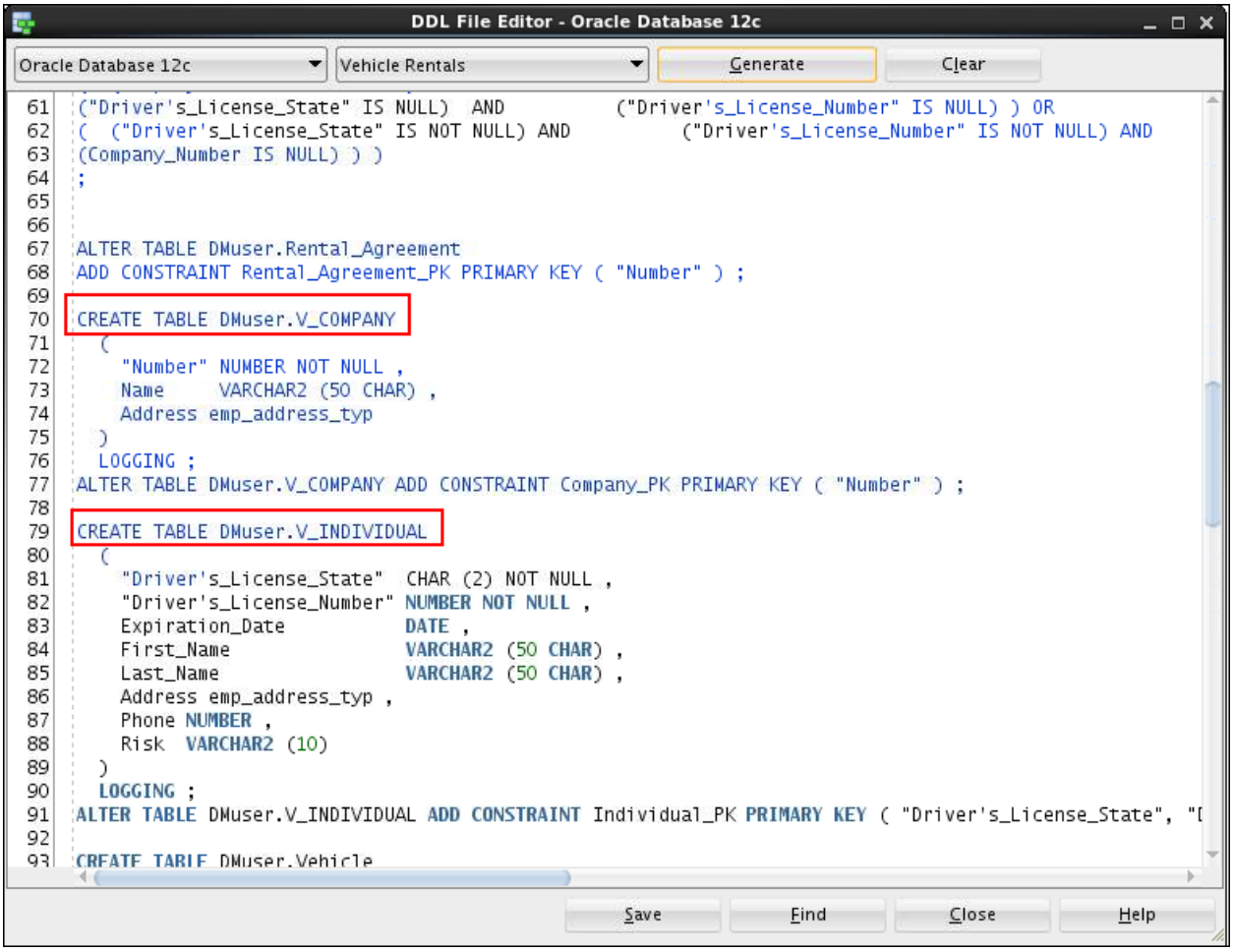


Table Properties - Vehicle
General
Columns
Primary Key
Unique Constraints
Indexes
Table Level Constraints
Existence Dependencies
Foreign Keys
Nested Columns
Valid Time Dimensions
Volume Properties
Spatial Properties
Column Groups
Comments
Comments in RDBMS
Notes
Impact Analysis
Measurements
Change Requests
Responsible Parties
Documents
Scripts
Dynamic Properties
Redaction Policy
Classification Types
Summary
Columns
Details
Overview
Security
Columns:
Name
Name
Data type
1 ID
id_6
2 State_of_Registra...
CHAR (2)
3 Registration_Num...
id_6
4 Date_of_Last_Mai...
Date
5 Reg Exp Date
Date
6 Code
id_6
7 Office_Number
id_6
Column Properties
Name:
Reg Exp Date
Datatype:
Domain
Logical
Distinct
Structured
Collection
Type:
Date
Preferred
PK
FK
Mandatory
Deprecated
Comments
Comments in RDBMS
Notes
OK
Apply
Naming Rules
Cancel
Help


Vehicle
P * ID NUMBER
State_of_Registration CHAR (2)
Registration_Number NUMBER
Date_of_Last_Maintenance DATE
Reg Exp Date DATE
F * Code NUMBER
F * Office_Number NUMBER
Vehicle_PK (ID)
Relation_5 (Code)
Relation_8 (Office_Number)

16. Regenerate the DDL. This time there are no errors.




```
-- Generated by Oracle SQL Developer Data Modeler 4.0.1.836
--   at:        2014-03-26 06:57:51 UTC
--   site:      Oracle Database 12c
--   type:      Oracle Database 12c



CREATE TABLESPACE "DM_TBLSPC " LOGGING ONLINE PERMANENT EXTENT MANAGEMENT LOCAL AUTOALLOCATE FLASHBACK

CREATE USER DMuser IDENTIFIED BY DEFAULT TABLESPACE "DM_TBLSPC " ACCOUNT UNLOCK ;

CREATE OR REPLACE TYPE emp_address_typ
AS
  OBJECT
  (
    Street     VARCHAR2 (50) ,
    City       VARCHAR2 (50) ,
    State      CHAR ,
    "Zip Code" VARCHAR2 (11) ) NOT FINAL ;
  /

CREATE TABLE DMuser.Office
  (
    "Number" NUMBER NOT NULL ,
    Name     VARCHAR2 (50 CHAR) ,
    Address emp_address_typ
  )
  LOGGING ;
ALTER TABLE DMuser.Office ADD CONSTRAINT Office_PK PRIMARY KEY ( "Number" ) ;

CREATE TABLE DMuser.Rental_Agreement
  (
```

17. Verify that the `Company` and `Individual` tables have the `V_` prefix.