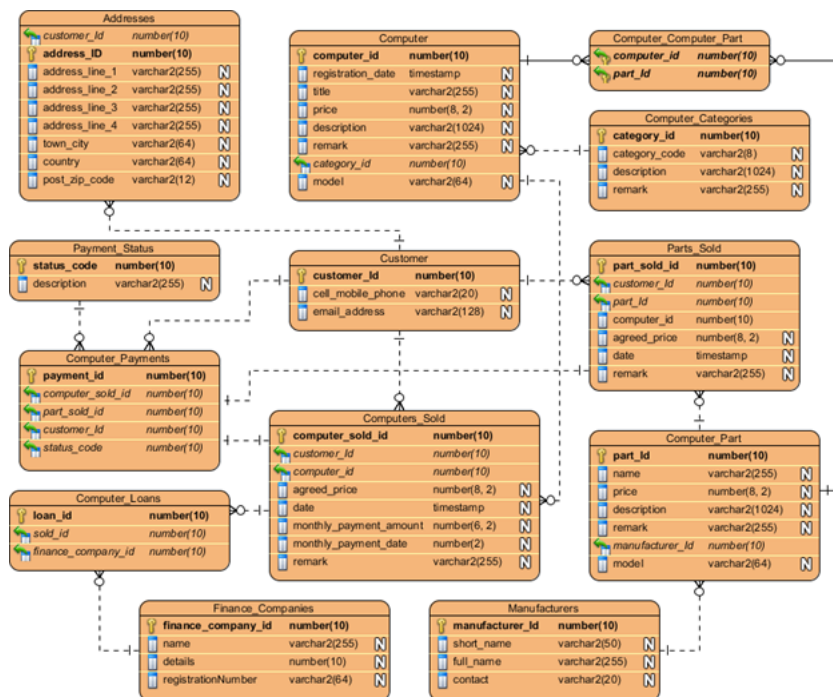




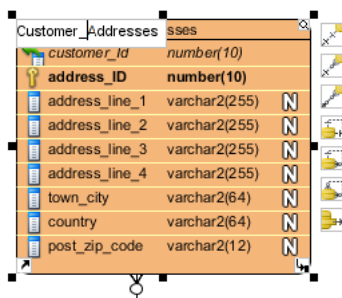
## Generating Database Change Script

Written Date : September 1, 2009

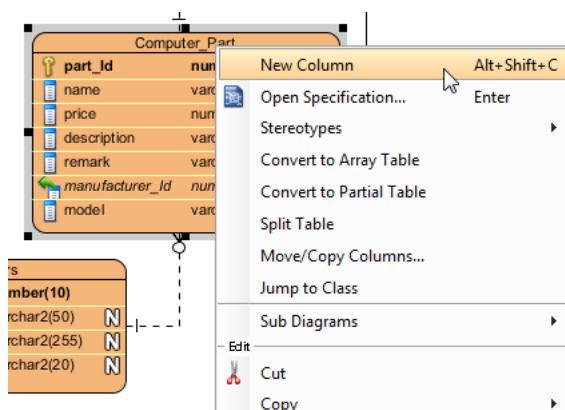
The original database design for the *Computer Sales* project:



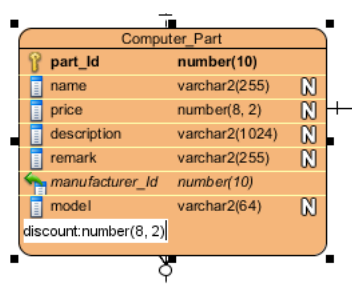
- Let's update the design. Rename the entity *Addresses* to *Customer\_Addresses*.



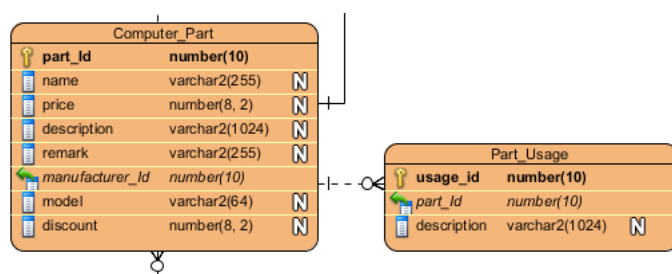
2. Add a new column to the entity *Computer\_Part* by right-clicking on it and selecting **New Column** from the popup menu.



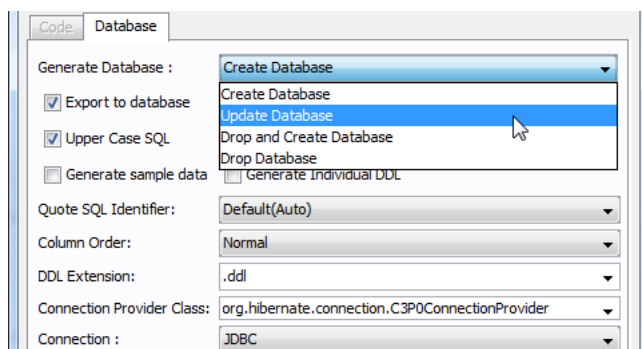
3. Enter *discount : numeric(8, 2)* as the column definition, press **Enter**, and then press **Esc** to confirm editing.



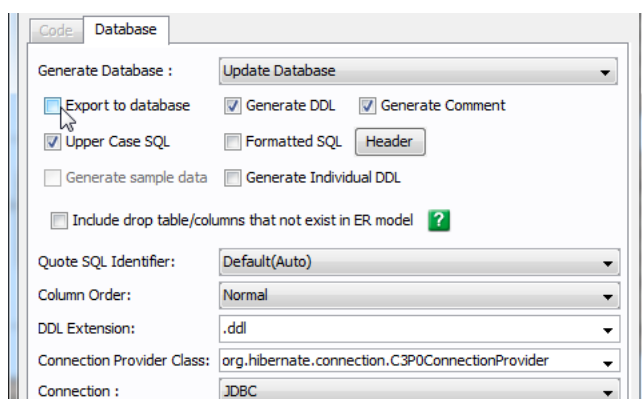
4. Move the mouse cursor over *Computer\_Part*, click on the **One-to-Many Relationship -> Entity** icon in the resource-centric interface, and drag to the empty region to create a new entity. Enter *Part\_Usage* as the entity name.
5. Rename the automatically created FK (foreign key) column to *part\_id*.
6. Repeat the previous steps to add the following columns to *Part\_Usage*.
  - **+usage\_id : number(10)**
  - **description : varchar2(1024)**



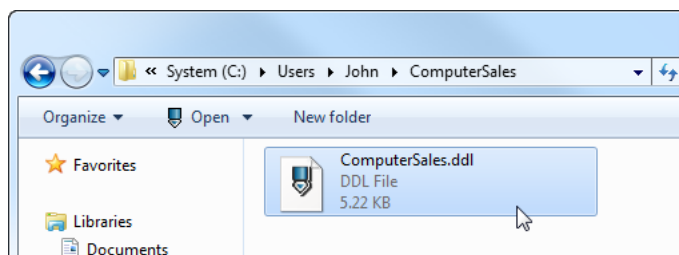
- The design is now updated. To generate the scripts of changes, select **Tools > Database > Generate Database...** from the main menu.
- In the **Database Code Generation** dialog box, specify the output path of the DDL script file.
- Select **Update Database** as the type of generation.



- Uncheck **Export to database** to generate only the scripts file.



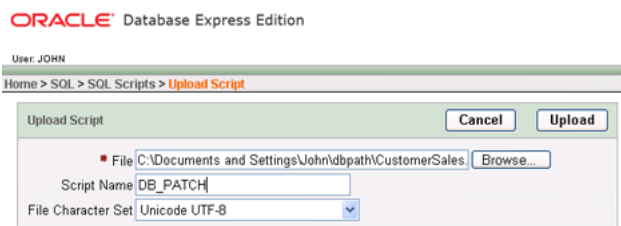
- Click **OK** to start generation.
- The script is generated to the given path.



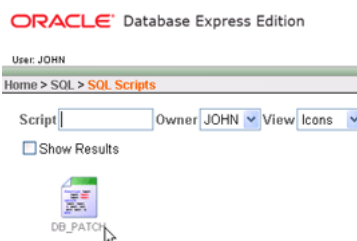
- Let's take a look at the generated scripts.

```
1 CREATE TABLE Customer_Addresses (customer_id number(10) NOT NULL, address_id number(10) NOT NULL, a
2 ALTER TABLE Computer_Part ADD discount number(8, 2);
3 CREATE TABLE Part_Usage (usage_id number(10) NOT NULL, description varchar2(1024), part_id number(1
4 ALTER TABLE Customer_Addresses ADD CONSTRAINT FKCustomer_A330997 FOREIGN KEY (customer_id) REFERE
5 ALTER TABLE Part_Usage ADD CONSTRAINT FKPart_Usage45987 FOREIGN KEY (part_id) REFERENCES Computer_P
6 CREATE SEQUENCE seq_Customer_Addresses;
7 CREATE SEQUENCE seq_Part_Usage;
8
```

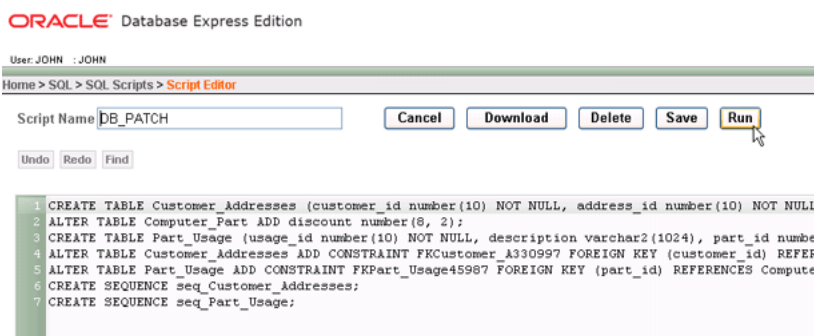
- To execute the scripts, open the Oracle Web client, select **SQL > SQL Scripts**, and click **Upload** to upload the generated DDL file.



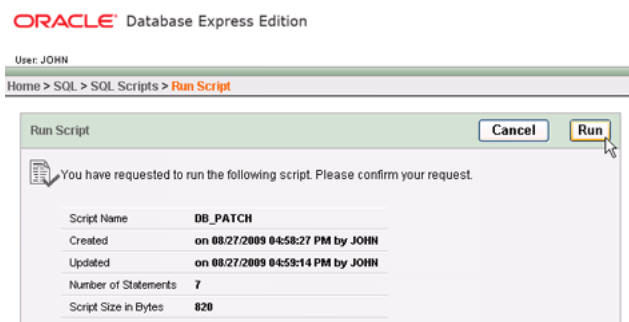
- Once the file is uploaded, click the script icon.



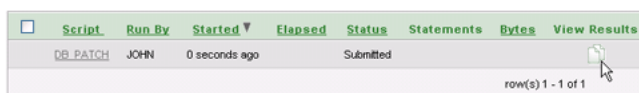
- Click **Run** to execute the scripts to the database.



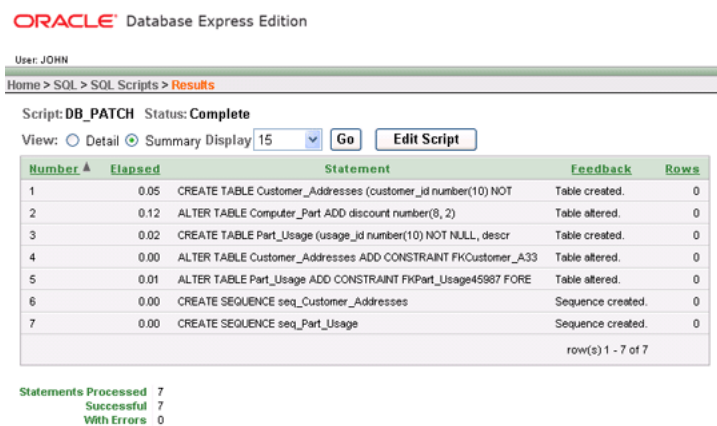
17. Click **Run** again to confirm.



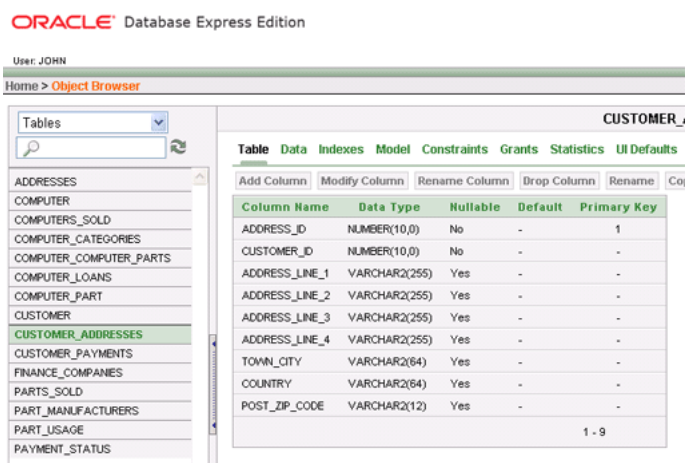
18. Click the file icon to check the result.



19. The scripts are executed successfully. The database is updated.



20. You can see the changes in the Object Browser.



## Resources

[What is Entity Relationship Diagram \(ERD\)? Evaluate Visual Paradigm for FREE](#)

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