



Altering the nullable of column from ERD

Written Date : August 16, 2010

Setting up your database

MySQL will serve as the database software throughout this tutorial. You can, however, utilize any other database products supported by Visual Paradigm. Once familiar with your chosen database software, you will find this tutorial straightforward to complete.

Before you start, create a database. Name it *myshop*.

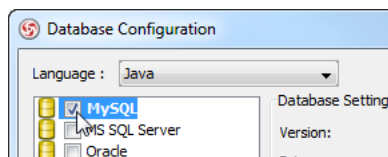
```
D:\apps\mysql\bin\mysql.exe
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 1
Server version: 5.0.51b-community-nt-log MySQL Community Edition <GPL>
Type 'help;' or '\h' for help. Type '\c' to clear the buffer.

mysql> create database myshop;
Query OK, 1 row affected (0.00 sec)

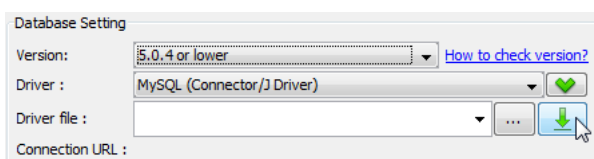
mysql> _
```

Configuring your database

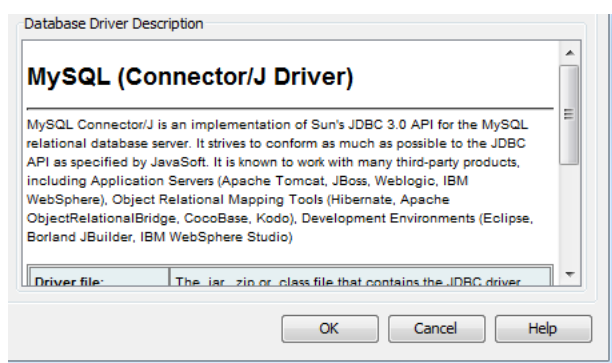
1. Create a project with Visual Paradigm. Select **Tools > Database > Database Configuration...** from the main menu.
2. In the **Database Configuration** dialog box, select your database software from the list. For this tutorial, ensure **MySQL** is selected.



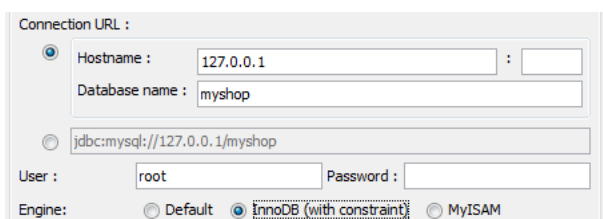
3. In the **Database Setting** panel, click the downward arrow button next to the **Driver file** field.



If your database provider does not support direct driver download, the pop-up **Download** dialog box will indicate that the database software is unavailable and provide a link for manual download. Alternatively, refer to the **Database Driver Description** section, which provides a link for downloading the driver file.



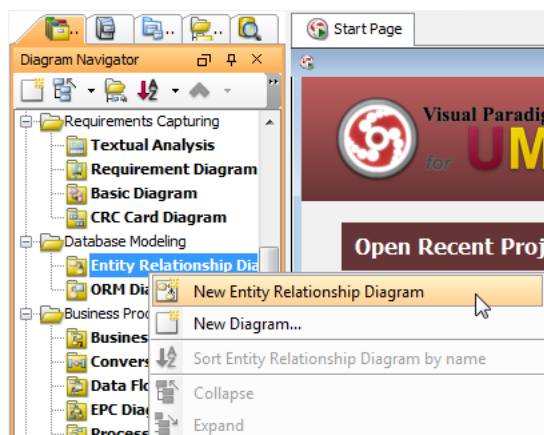
4. Fill in the connection information to establish a database connection. Enter *myshop* as the database name. For MySQL users, select **InnoDB** as the engine to preserve relationships among entities during database generation.



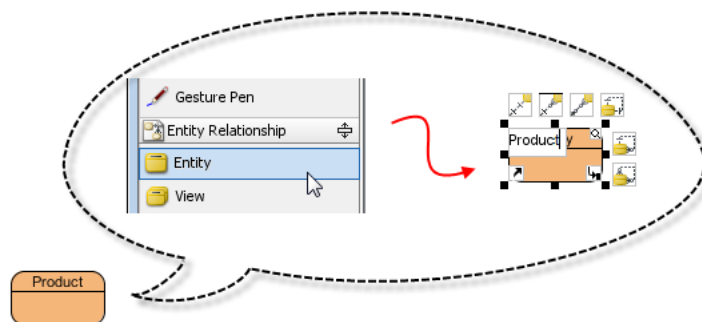
5. Finally, click **Test Connection** to verify the connection. Then, click **OK** to close the configuration dialog box.

Drawing an ERD

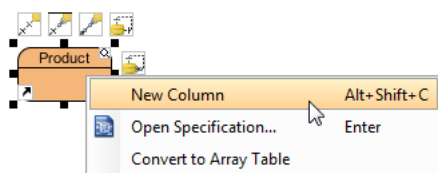
1. Create an ERD. Right-click on **Entity Relationship Diagram** in the **Diagram Navigator** and select **New Entity Relationship Diagram** from the pop-up menu.



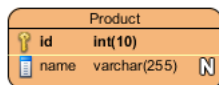
2. Immediately name the diagram *MyShop ERD* in the top-left corner. Ensure **Physical Model** is selected in the top-right corner.
3. Create an entity. Click on **Entity** in the diagram toolbar and drag it onto the diagram. Name it *Product* and press **Enter** to confirm.



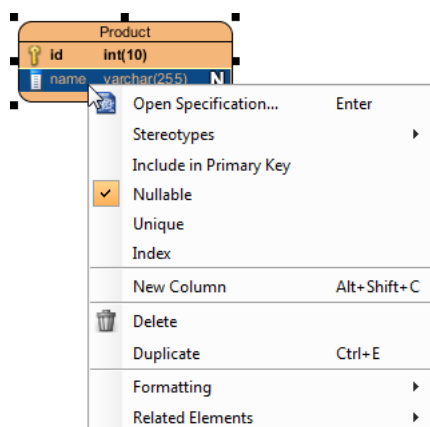
4. Let's add columns to the entity. Right-click on *Product* and select **New Column** from the pop-up menu. Enter *+id:int* as the name (note: The plus sign indicates this is a Primary Key column). Press **Enter**.



- Next, add another column *name* : *varchar(255)*. The entity should now resemble the image shown below:

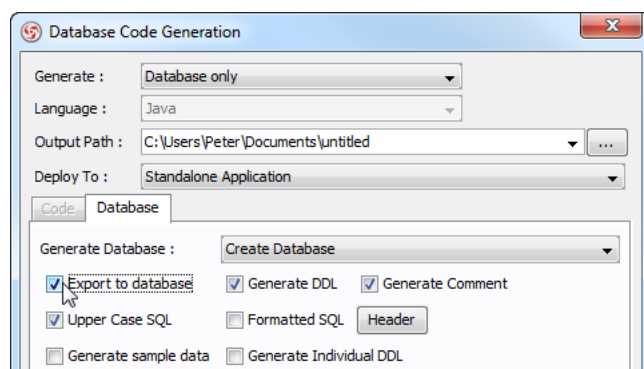


- Right-click on the *name* column. You will observe that the **Nullable** option is checked. This signifies that you can leave the product name empty when inserting or updating a product record.



Generating the database

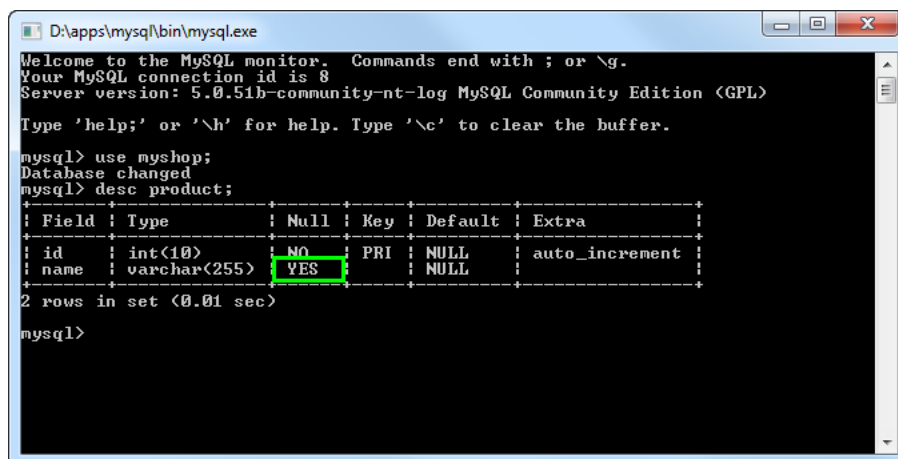
- Select **Tools > Database > Generate Database...** from the main menu.
- In the **Database Code Generation** dialog box, select **Export to database** and **Generate sample data**. If these options are not selected, neither the database nor sample data will be created.



- Click **OK** to start generation.

Checking your database

You can now check your database to see if the *name* column was generated as nullable. Below is a screenshot captured under MySQL.



```
D:\apps\mysql\bin\mysql.exe
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 8
Server version: 5.0.51b-community-nt-log MySQL Community Edition <GPL>

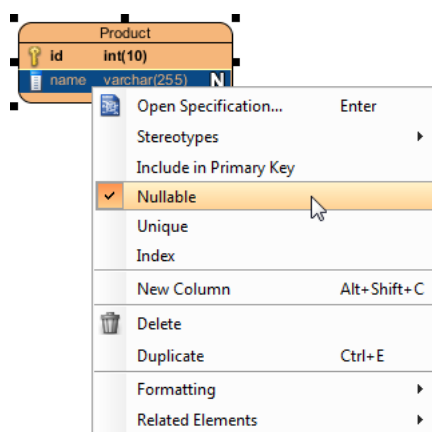
Type 'help;' or '\h' for help. Type '\c' to clear the buffer.

mysql> use myshop;
Database changed
mysql> desc product;
+----+-----+-----+-----+-----+-----+
| Field | Type          | Null | Key | Default | Extra          |
+----+-----+-----+-----+-----+-----+
| id    | int(10)       | NO   | PRI | NULL    | auto_increment |
| name  | varchar(255)  | YES  |     | NULL    |                |
+----+-----+-----+-----+-----+-----+
2 rows in set (0.01 sec)

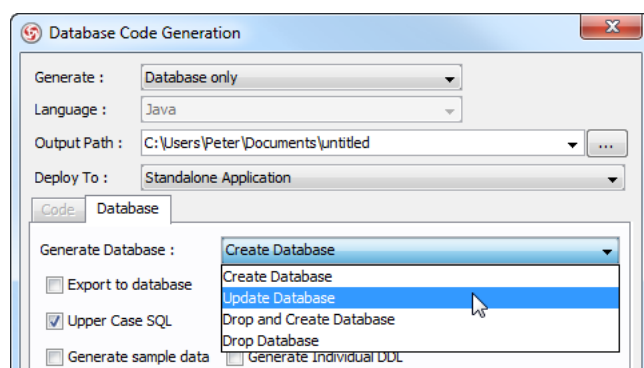
mysql>
```

Altering the nullable setting

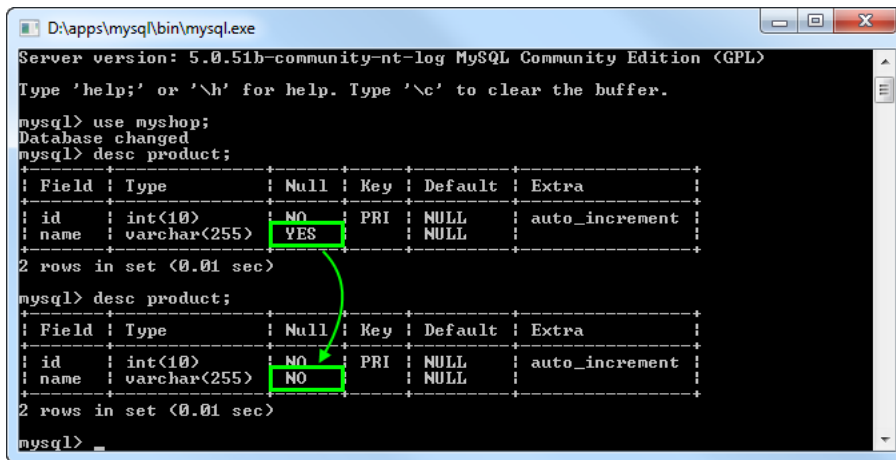
1. Now, return to the diagram. Right-click on the *name* column and deselect **Nullable** from the pop-up menu. Immediately, the symbol 'N' will no longer appear in the entity shape.



2. To update the database, select **Tools > Object-Relational Mapping (ORM) > Generate Database...** from the main menu.
3. In the **Database Code Generation** dialog box, select **Update Database** for the action to be performed.



4. Click **OK** to start updating the database.
5. Check the database again. This time, you will observe that the *name* column is no longer nullable.



```
D:\apps\mysql\bin\mysql.exe
Server version: 5.0.51h-community-nt-log MySQL Community Edition (GPL)
Type 'help;' or '\h' for help. Type '\c' to clear the buffer.

mysql> use myshop;
Database changed
mysql> desc product;
+----+-----+-----+-----+-----+-----+
| Field | Type          | Null | Key | Default | Extra          |
+----+-----+-----+-----+-----+-----+
| id    | int(10)       | NO   | PRI | NULL    | auto_increment |
| name  | varchar(255) | YES  |     | NULL    |                |
+----+-----+-----+-----+-----+-----+
2 rows in set (0.01 sec)

mysql> desc product;
+----+-----+-----+-----+-----+-----+
| Field | Type          | Null | Key | Default | Extra          |
+----+-----+-----+-----+-----+-----+
| id    | int(10)       | NO   | PRI | NULL    | auto_increment |
| name  | varchar(255) | NO   |     | NULL    |                |
+----+-----+-----+-----+-----+-----+
2 rows in set (0.01 sec)

mysql> _
```

Related Links

- [What is Entity Relationship Diagram \(ERD\)?](#)



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[Visual Paradigm tutorials](https://www.visual-paradigm.com/tutorials/)
(<https://www.visual-paradigm.com/tutorials/>)