



## Eclipse Tutorial: How to Access Database WITHOUT SQL?

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[Object relational Mapping \(ORM\)](#) is a way to virtually map Java objects with relational database to aid in object-oriented programming and [Hibernate](#) is one of the most popular ORM framework on the market. With [Visual Paradigm Eclipse Integration](#), you can have an all-in-one modeling plugin for your [Eclipse](#), one of the most popular IDE on the market. You can design system with [UML diagrams](#) and design database with [ERD](#) tool. You can also generate database and executable [Java](#) Hibernate source code out of your diagrams.

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In this tutorial, we will show you the step-by-step procedure to try out object-relational mapping by first, define the data model in ERD with sample data, then generate class diagram from ERD, generate database and hibernate code and finally use the generated hibernate code to insert data to database and retrieve data from database. As the focus of this tutorial is how you can work with hibernate together with Eclipse and Visual Paradigm, a minimal example will be used. [Visual Paradigm](#), Eclipse 8.4.1 Luna and [Microsoft SQL Server](#) will be used in this tutorial.

### Getting started

We assume you have the SQL Server, Eclipse and Visual Paradigm being installed. Now let's get started. We first create a database in our SQL Server.

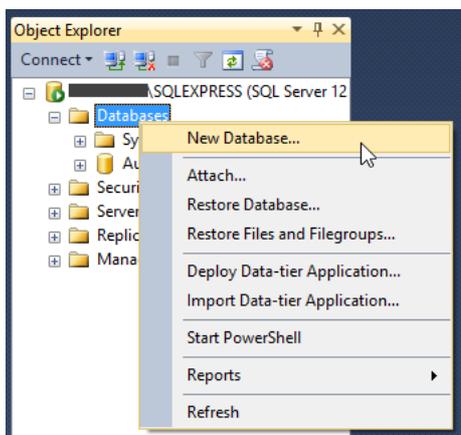
Setup your database

To setup a database in SQL Server:

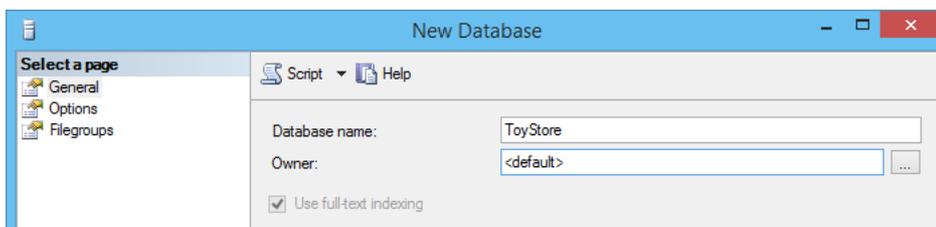
1. Login your SQL Server via **Microsoft SQL Server Management Studio**.



2. Right-click on the **Databases** node in **Object Explorer** and select **New Database...** from the popup menu.



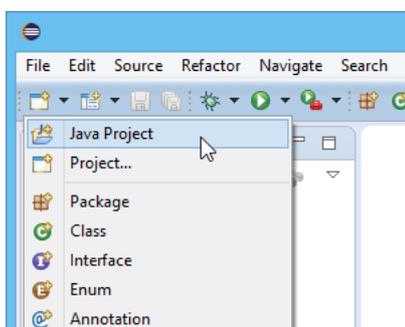
3. Enter the name of the database. In this tutorial, we name the database as *ToyStore*.



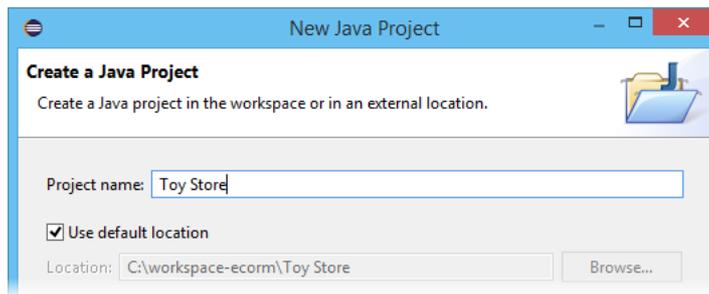
4. Click **OK** to create the database.

#### Creating Java project in Eclipse

1. Start the Eclipse IDE.
2. Click the **New** button in **Application Toolbar** and select **Java Project** to open the **New Java Project** window.



3. In the **New Java Project** window, enter *Toy Store* in **Project name** field.

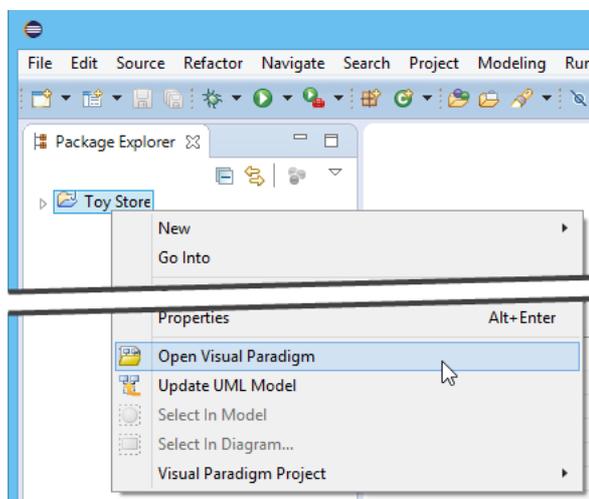


4. Click **Finish** to create the project.

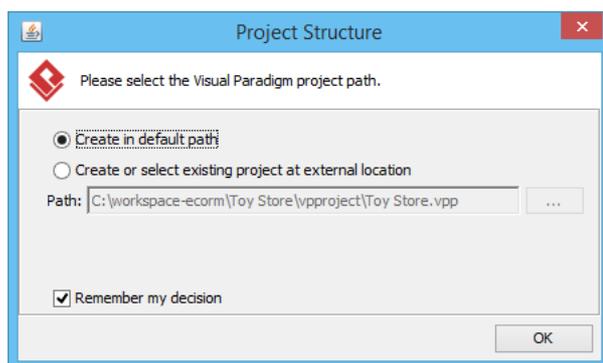
### Starting Visual Paradigm in Eclipse

Now, we have to start up Visual Paradigm in Eclipse.

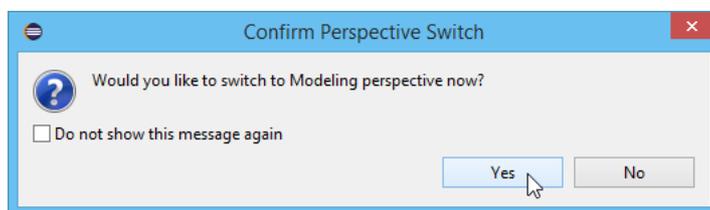
1. Right-click on your Java project and select **Open Visual Paradigm** from the popup menu.



2. You may be prompted to specify the location of your Visual Paradigm project. In this case, simply select **Create in default path** and click **OK** to proceed.



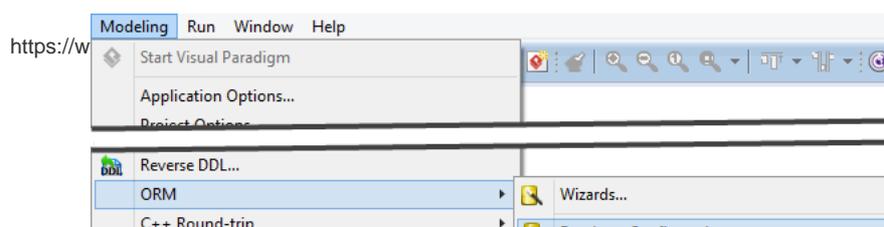
3. When you are prompted to switch to the Modeling perspective, choose **Yes**.



### Configure database for your Eclipse project

Before the modeling start, we have to specify the database configuration for our project first.

1. Select **Modeling > ORM > Database Configuration...** from the main menu





Visual Paradigm home page  
(<https://www.visual-paradigm.com/>)

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