Analysis of the video tutorial “Dirigible - Basics - 1. Data Structures”

- *Target group*: Everyone who wants to use Eclipse Dirigible and users who will use the application for prototyping their projects.
- *Level of knowledge*: Basic knowledge of programming and database.
- *Main purpose*: Gain basic knowledge about how to work with Dirigible.
- *Written version of the video tutorial*:

1. Go to Eclipse Dirigible Web IDE and start off with creating a new empty project. Go to the **File** menu located in the upper left corner and choose Right-click *–> New –> Project*.

2. Give a name to your project.

3. You will be given an option to choose from various project templates, but for our purposes we will need a blank application template. Choose **Finish** to end the creation of the project.

4. Following go and right-click on the new project. Choose **New** from the menu and then choose **Data Structure**.

5. Now it is time to create the database. Select the **Relative Database Table** template from the menu. Click **Next**. Now you need to add all the necessary table properties (naming the table, adding the types of the columns of the table, etc.).

6. First, let’s create a column. For example, let's assume our table is going to hold the essential data of a university student. It will have a column for a faculty number, a name (First and Last), an average grade and a column for the birth date. Now let's add a column for a faculty number (FN). Click the **Add** button and start filling off the fields:

Name: ID
Type: INTEGER
Length:
Check boxes “**Not Null?”** and “**Primary key?**”

*For your example we have let some of the fields blank. We specifically talk about the faculty number because we won't be needing it to have a maximum length allowed (it is for **VARCHAR**) and because it is a primary key it won't be needing a default value.*

For the rest of the columns fill in:

Name: FIRST_NAME
Type: VARCHAR
Length: 30
Check boxes "**Not Null?**" and "**Primary key?**"

And so on until you fill all of the columns.

7. After filling all the necessary columns for your table, click **Next** and name your table (STUDENTS for example). Afterward click **Finish**. The table definitions are written in JSON format.

8. Go again to the name of the project and right-click it and choose from the menu **Publish**. Then click the button **other..**, located in the left top part (almost in the upper middle part) of the screen near the logo. Choose from the menu – **Database**. From now on we have a successfully published database. The SQL console is activated automatically, so we can view and manipulate our data. But if we try to retrieve any data we will stumble over a rock. That's because our table is empty and we will need to add some sample data in order to see if we have done a good job at modeling it.

9. We go and create another **Data Structure** because we need a sample data. From the template menu select **Delimiter Separated Value SAmple Data** and then click **Next**. Find a table with the name **STUDENTS** (this table holds sample data appropriate for our table) and select it. In order to finish click **Next** and **Finish**.

10. Finally, we need to publish the updated version of the database and activate the SQL console one more time. Type **SELECT * FROM STUDENTS;** in the SQL console window. This time the query was successful.

If you need to see the video tutorial, you can follow this link: