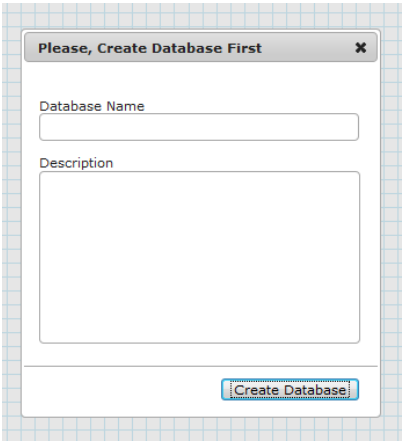
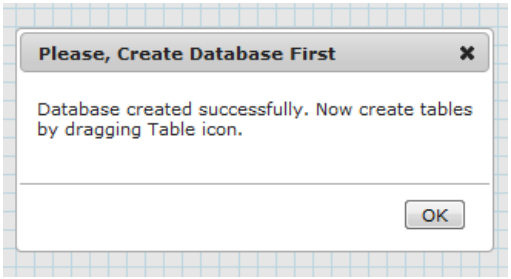
jQuery SQL Designer

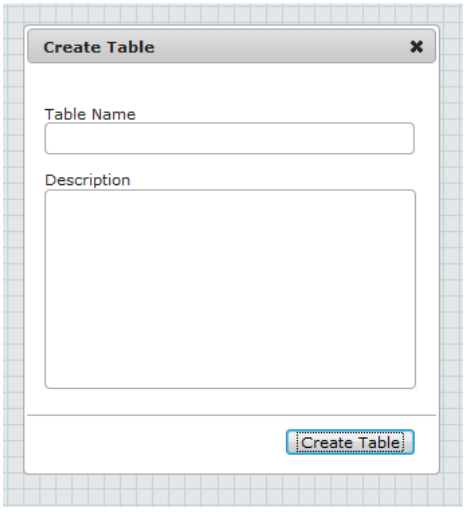
1. jQuery SQL Designer can be accessed at the following URL: http://daas.oucs.ox.ac.uk:8080/jQuerySQLDesigner/designer.seam
2. jQuery SQL Designer is online tool for database designing. It can be used for designing new database, modifying existing database or viewing the design of live database.
3. jQuery SQL Designer is intentionally made “Double Click”. This means for each action double click is required. It will be made clear in the remaining instructions.
4.  is the Table icon. To start the database designing, drag “Table” icon. This will bring the popup suggesting to first create database itself, as shown below:



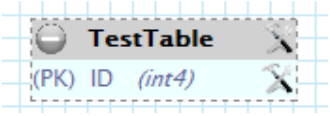
5. Fill the form accordingly by giving the name of database and its description and click button “Create Database”. This will result in another popup confirming the successful creation of database.

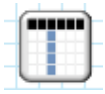


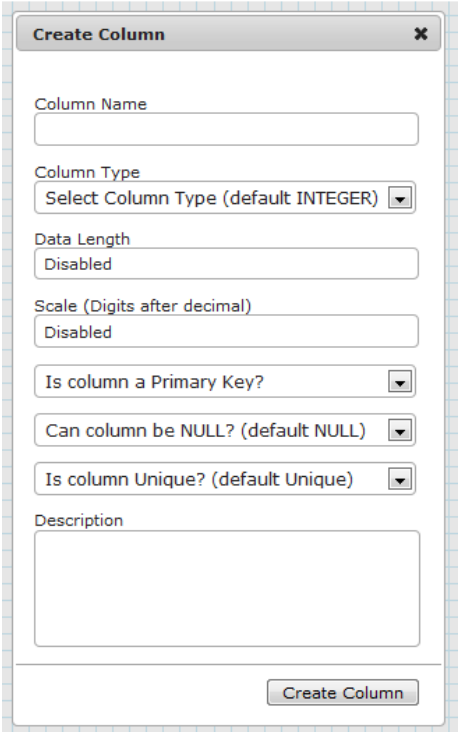
6. Drag the “Table” icon again on the grid to create the table. Create Table popup will appear. Please fill the form as required and click the button “Create Table”.



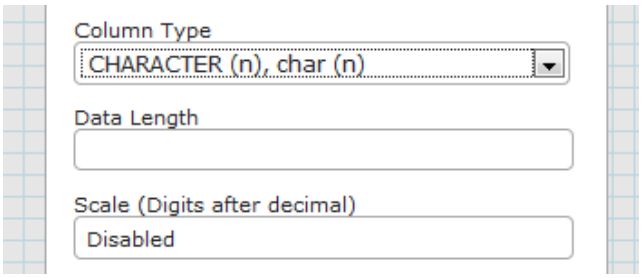
7. This will result in the creation of new table with one primary key “ID” as integer. In next versions of the database it will be possible to create a database without any primary key.



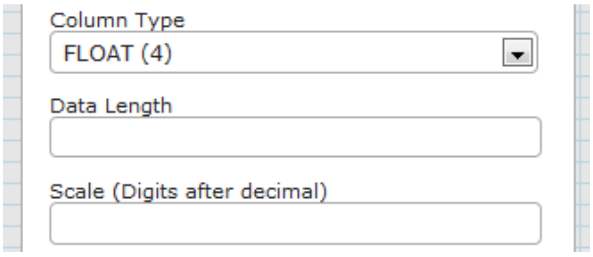
8.  is the Column icon. It is used to add columns to existing tables.
9. Drag “Column” icon on already created table. This will bring the Create Column popup as shown below:



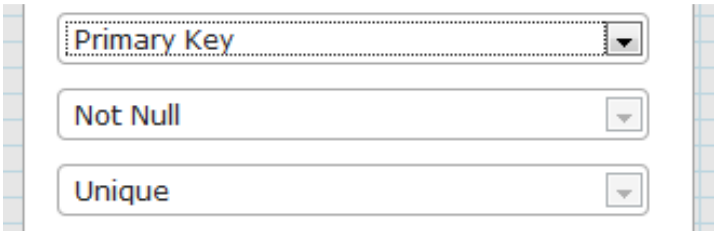
10. There are few things to notice. Fields “Data Length” and “Scale” are either disabled or enabled depending on the Column Type. For data type “char” and ”vchar” the field “Data Length” is editable.



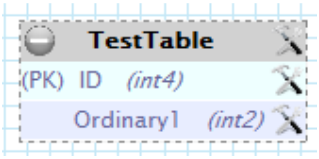
11. Similarly for the data type “Decimal” and “Floar”, fields “Data Length” and “Scale” are editable.



12. If the field is tagged as Primary Key then the form automatically selects the column properties as “Not Null” and “Unique” and made them un-editable.



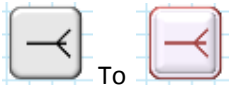
13. Fill the Create Column form as required and click on the button “Create Column”. This will add a new column to the existing table.



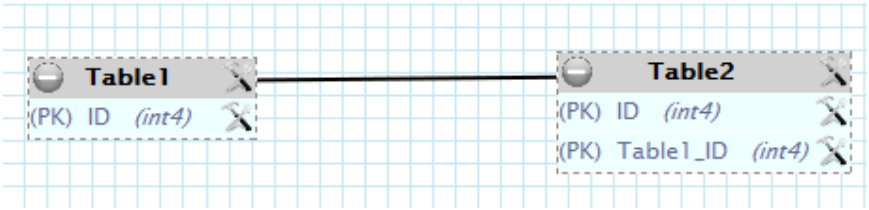
14.  is the properties icon on the right hand side of Table and Column names. Double clicking on the properties icon brings either Modify Table or Modify Column form. User can verify, modify and update the existing values for the table and columns. The form do also Delete Table or Delete Column buttons but they are not yet available.

15.  is the minimise icon on the left hand side of the table name. Double click the minimise icon to minimise the table. The table will be minimized and its header will change the background colour and font size as shown below:

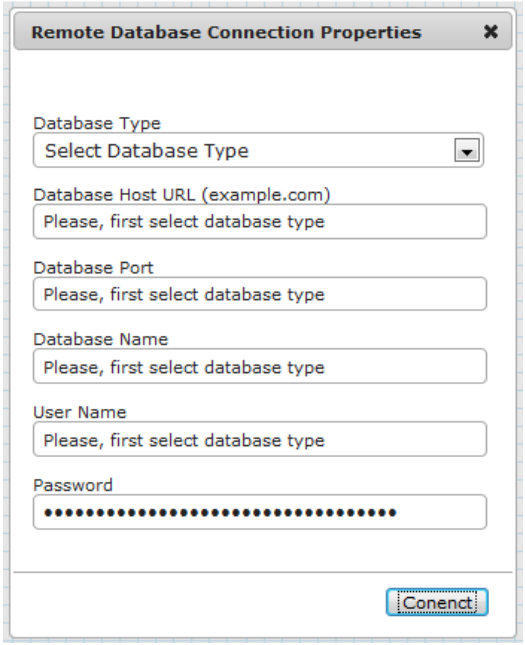
16. Tables can be dragged around the design panel by bringing the mouse on table header. Mouse icon changes on entering the table header and changes again when user right click the mouse button.
17. There are various icons for various types of relations i.e. One-To-One (Identifying and Non Identifying), One-To-Many One (Identifying and Non Identifying) and Many-To-Many.
18. When any relation button is clicked it changes its appearance as shown below:



19. Icons with dashed lines represent Non Identifying relations. Similarly icons with continuous line represent Identifying relations.
20. Drawing relations between two tables involves three steps:
    a. Click the relation icon
    b. Double click the header of Table with Primary Key
    c. Double click the header of secondary (dependent) Table.
21. Line will be drawn between two tables representing the relation and the relation icon reverts to its normal state.



22. Moving the cursor on the relation will change the colour of the relation and also highlights headers of tables involved.
23.  will produce the SQL for the designed database.
24.  will load one existing database for familiarising with jQuery SQL Designer. It is quite complicated database used by Roman Economy Project in Oxford University.
25. The button “Load Live Database” is a new very powerful feature to draw Design Diagram from the live running database.
26. Click on the “Load Live Database”, it will bring the popup where enters the appropriate fields. The popup form is shown below:



27. We support all major Databases but right now we are only functionality related to MySQL and PostgreSQL is available from GUI.
28. Select the database type; enter the host name where database is located without any protocol i.e. daas.oucs.ox.ac.uk. The following URL http:// daas.oucs.ox.ac.uk will not work.
29. Enter the database port for MySQL the default port is 3306 and for PostgreSQL it is 5432 but contact your system admin if you are not sure.
30. In the end enter the username and password of the user who has access to the database.
31. SQL Designer supports the migrating of database from one vendor to another at run time. It follows following steps:
    a. Pulls the database design from existing database.
    b. Pulls the data from the existing database.
    c. Create new database which can even different vendor.
    d. Populate the database with the data.