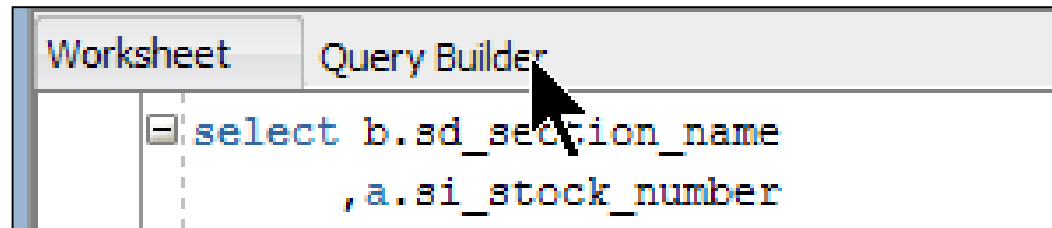


## Query Builder – Invoking Query Builder



The Query Builder area can be found next to the Worksheet tab ...



Clicking on the Query Builder when SQL is already in the Worksheet will represent the tables and columns already selected, note that the tables can be expanded if the column names are long ...

# Query Builder – Invoking Query Builder



The screenshot shows the Query Builder interface with three tables and their selected fields:

- b (section\_details)**:
  - \*
  - SD\_SECTION\_NUMBE
  - SD\_SECTION\_NAME
  - SD\_SECTION\_TYPE
  - SD\_CREATED\_BY
  - SD\_CREATED\_DATE
  - SD\_UPDATED\_BY
  - SD\_UPDATED\_DATE
- a (stock\_informati...)**:
  - \*
  - SI\_STOCK\_NUMBER
  - SI\_SECTION\_NUMBE
  - SI\_STOCK\_DESCRIP
  - SI\_UNIT\_PRICE
  - SI\_NO\_IN\_STOCK
  - SI\_CREATED\_BY
  - SI\_CREATED\_DATE
  - SI\_UPDATED\_BY
  - SI\_UPDATED\_DATE
  - SI\_STOCK\_PIC\_BLOB
  - SI\_STOCK\_DOC\_BLOB
  - SI\_STOCK\_TEXT\_CLOB
- stock\_sales**:
  - \*
  - STS\_LOCATION\_ID
  - STS\_DATE
  - STS\_STOCK\_NUMBE
  - STS\_NUMBER\_SOLD
  - STS\_PRICE
  - STS\_CREATED\_BY
  - STS\_CREATED\_DATE
  - STS\_UPDATED\_BY
  - STS\_UPDATED\_DATE

Field mappings shown in the interface:

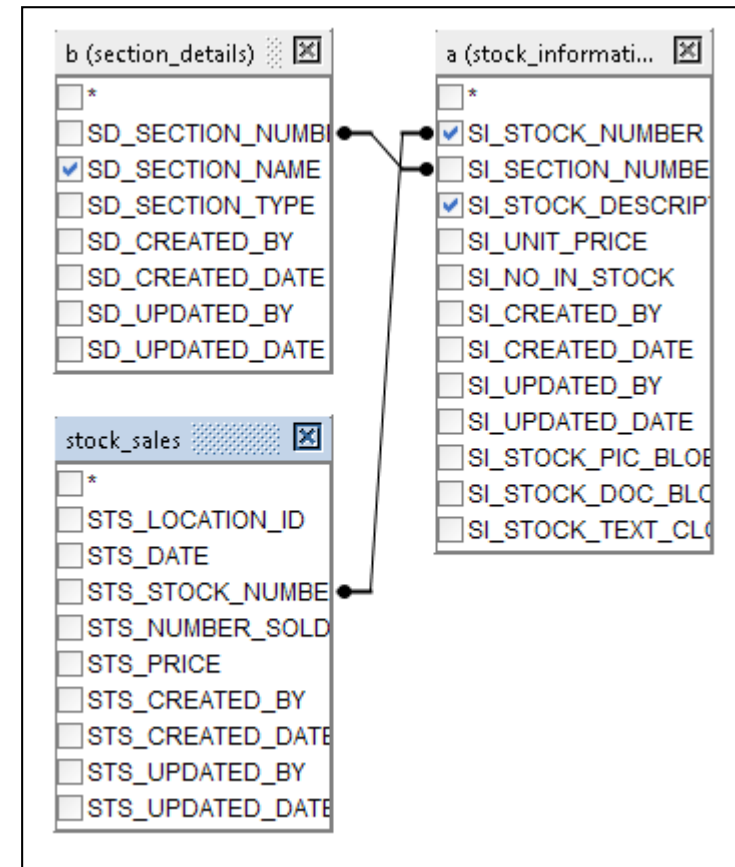
- SD\_SECTION\_NAME (from b) is mapped to b.SD\_SECTION\_NAME in the output.
- SI\_STOCK\_NUMBER (from a) is mapped to a.SI\_STOCK\_NUMBER in the output.
- SI\_STOCK\_DESCRIP (from a) is mapped to a.SI\_STOCK\_DESCRIPTION in the output.

Output	Expression	Aggregate	Alias	Sort Type	Sort Order	Grouping	Criteria	Or
<input checked="" type="checkbox"/>	b.SD_SECTION_NAME					<input type="checkbox"/>		
<input checked="" type="checkbox"/>	a.SI_STOCK_NUMBER					<input type="checkbox"/>		
<input checked="" type="checkbox"/>	a.SI_STOCK_DESCRIPTION					<input type="checkbox"/>		
<input type="checkbox"/>						<input type="checkbox"/>		



Query Builder consists of two panels, the graphical representation showing the Tables and Views (more about Views later) and their joins signified by the lines between the tables.

Columns which are selected have their check boxes checked and can be taken away, or added to ...





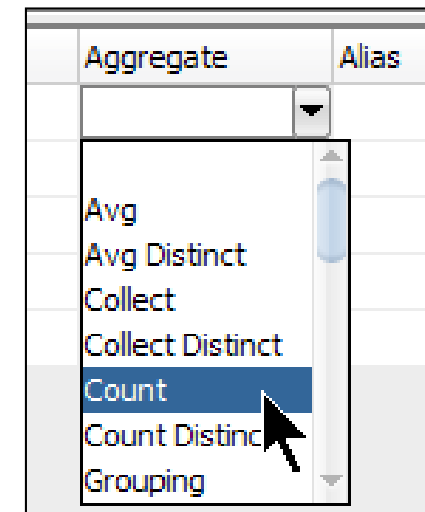
## Query Builder – Query Builder Topography

The second panel concerns itself with the columns which have been selected ...

Output	Expression	Aggregate	Alias	Sort Type	Sort Order	<input type="checkbox"/> Grouping	Criteria	Or
<input checked="" type="checkbox"/>	b.SD_SECTION_NAME					<input type="checkbox"/>		
<input checked="" type="checkbox"/>	a.SI_STOCK_NUMBER					<input type="checkbox"/>		
<input checked="" type="checkbox"/>	a.SI_STOCK_DESCRIPTION					<input type="checkbox"/>		

Output specifies whether the column is displayed (it can be selected but not output) and used for sorting for example

Aggregate specifies whether the column is to be aggregated (a pull down is available) ...

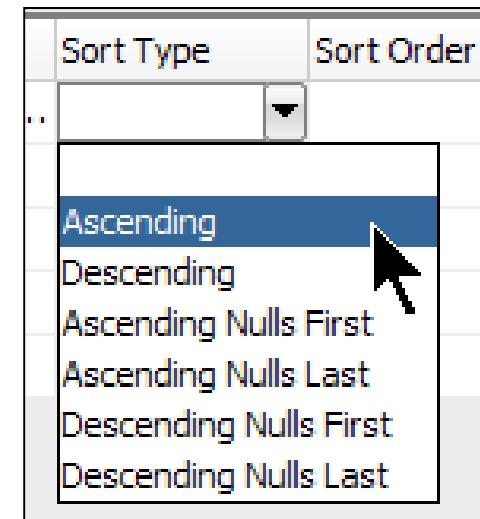




Alias will add an alias to the column, remember to use double quotes if the case and spaces are to be preserved.

Sort type will display the options for the column and if selected the column will be included in the 'order by' ...

Sort order will dictate which column comes first in the order by





Grouping will specify whether the column will need to be part of a group by statement (all columns which are not aggregated)

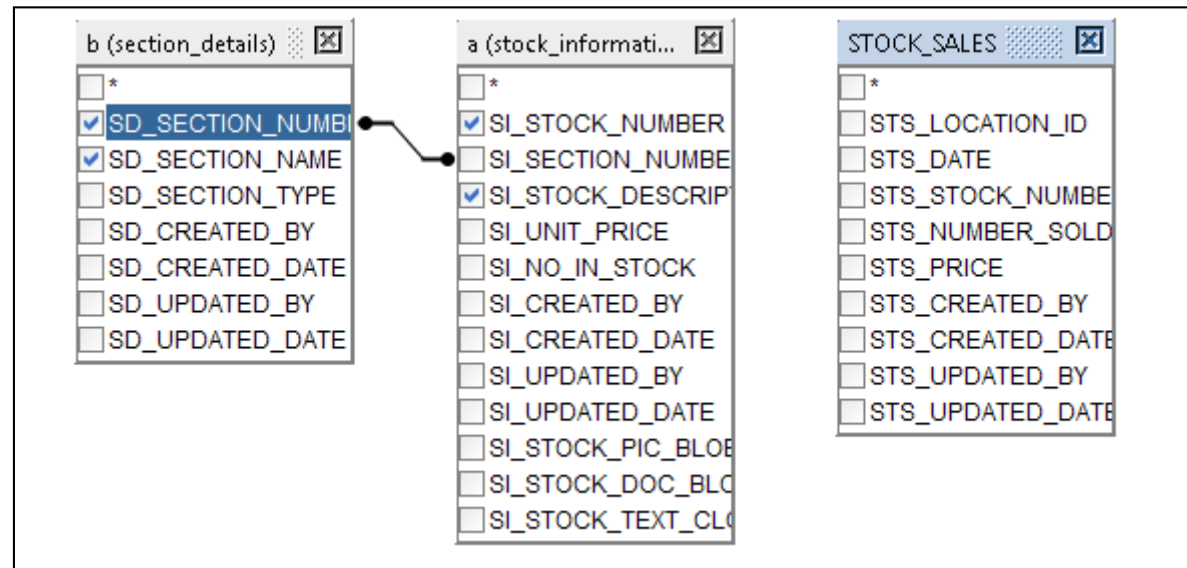
The Criteria and the Or areas allows the User to enter the 'where' clause for the column, only the operator and the value need to be entered ...

Criteria	Or
In (1, 2, 3)	



## Query Builder – Selecting Tables

Tables are selected in Query Builder by dragging and dropping, here the User has deleted the Stock\_Sales and restored it, not that the original link has now disappeared, this can be restored by dragging the column into the table to be linked





To grant privileges to a lot of Users, using this dialog can be very arduous, if all Users need access to the Object then the User can grant the privileges to the Public Role, all Users are members of this.

SQL Worksheet can grant privileges to a great many Users in one command ...

The format of the granting is as follows ...

*grant* <privilege> *on* <object> *to* <schema>;





In this example, the table `stock_information` has been given to three schemas, all of which will have select and update access ...

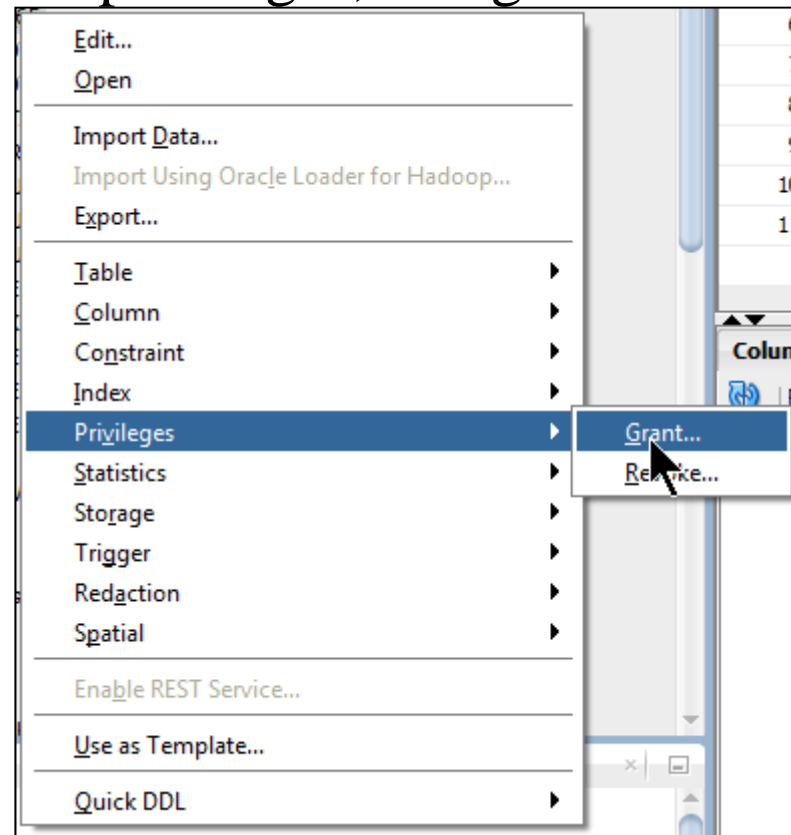
```
grant select, update  
on stock_information  
to stever, janew, johnf
```

If the *with grant option* is added at the end of the above statement, the User is in fact giving the above schemas the ability to pass on their privileges to other Users



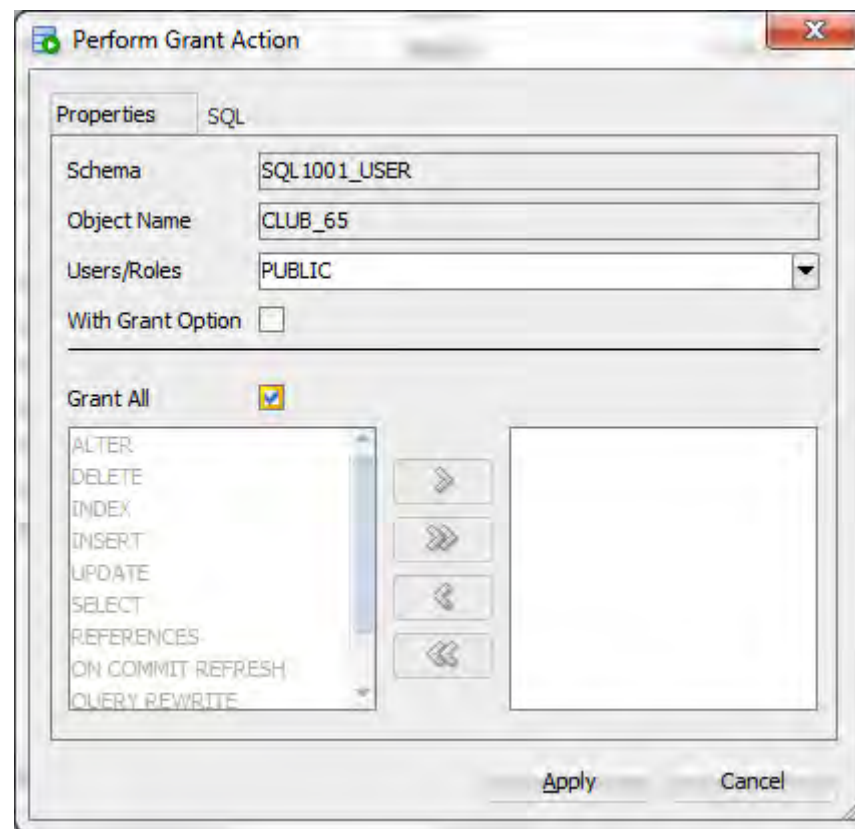
There are other Privileges but these relate to Objects not covered in this course. To view the privileges dialog, right click on the Table in the Connection Navigator and click on privileges, this gives the User the opportunity to grant or revoke privileges ...

Privileges can also be reached using the action dialog in the Object Editor





The Grant Privileges dialog allows the User to select the User or Role and the privileges for the selected table ...





The revoke privilege SQL syntax is as follows ...

*revoke* <privilege(s)> **on** <object> **from** <schema>

*revoke insert*

*on club\_65*

*from course\_user*



## Accessing Objects – Revoking Privileges

The revoke privileges will display all schemas with any privileges granted to the Table, to revoke access move the privilege to the right hand pane or select 'Revoke All' ...

