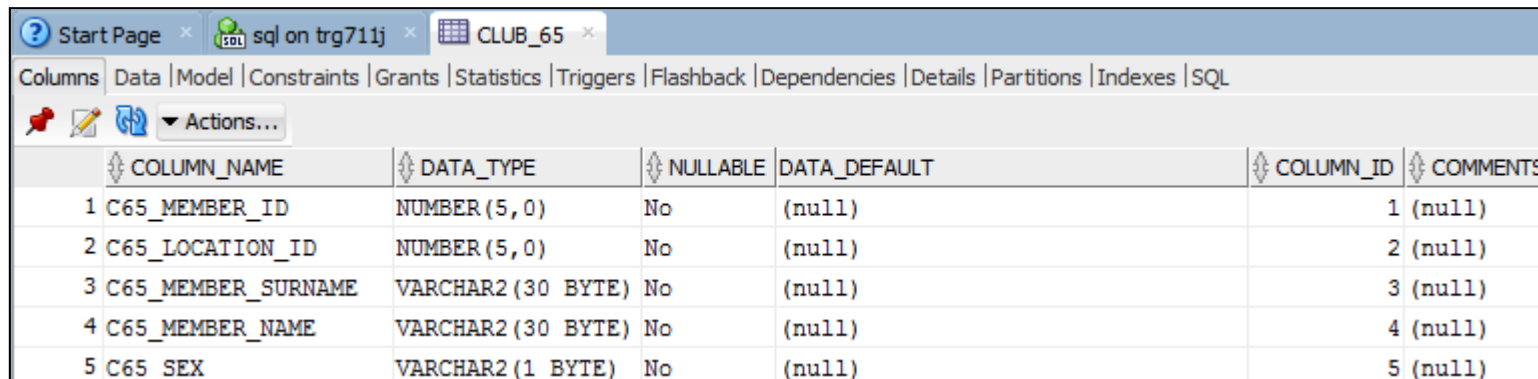


## Object Details Dialog – Columns Tab



The Columns Tab gives the User a powerful utility to work on a Tables structure, some of these aspects will be dealt with later in the course.

The Columns Tab is the first tab to be displayed in the Object Details Dialog and displays the structure of the columns within the Table ...



The screenshot shows the 'Columns' tab of the Object Details Dialog for a table named 'CLUB\_65'. The dialog has several tabs: Columns, Data, Model, Constraints, Grants, Statistics, Triggers, Flashback, Dependencies, Details, Partitions, Indexes, and SQL. The 'Columns' tab is active, showing a table with 5 columns. The columns are: C65\_MEMBER\_ID (NUMBER(5,0)), C65\_LOCATION\_ID (NUMBER(5,0)), C65\_MEMBER\_SURNAME (VARCHAR2(30 BYTE)), C65\_MEMBER\_NAME (VARCHAR2(30 BYTE)), and C65\_SEX (VARCHAR2(1 BYTE)). All columns are nullable and have a default value of (null). The table also has a 'COMMENTS' column.

	COLUMN_NAME	DATA_TYPE	NULLABLE	DATA_DEFAULT	COLUMN_ID	COMMENTS
1	C65_MEMBER_ID	NUMBER(5,0)	No	(null)	1	(null)
2	C65_LOCATION_ID	NUMBER(5,0)	No	(null)	2	(null)
3	C65_MEMBER_SURNAME	VARCHAR2(30 BYTE)	No	(null)	3	(null)
4	C65_MEMBER_NAME	VARCHAR2(30 BYTE)	No	(null)	4	(null)
5	C65_SEX	VARCHAR2(1 BYTE)	No	(null)	5	(null)

## Object Details Dialog – Columns Tab (Resizing columns)



The sequence and size of this data can be changed ...

In this example the User has positioned the cursor on the right hand edge of the column and drags it to adjust its width ...

	↕ COLUMN_NAME	←↔ DATA_TYPE	↕ NULLABLE
1	C65_MEMBER_ID	NUMBER (5, 0)	No
2	C65_LOCATION_ID	NUMBER (5, 0)	No
3	C65_MEMBER_SURNAME	VARCHAR2 (30 BYTE)	No
4	C65_MEMBER_NAME	VARCHAR2 (30 BYTE)	No

If the User had double clicked in this position, the column will adjust itself to the maximum width of the data it contains, this technique also applies when viewing table data.



## Object Details Dialog – Columns Tab (Moving columns)

In this example the User holds down the left mouse and drags the column to a different position in the ordering of the columns ...

	↕ COLUMN_NAME ↕	↕ DATA_TYPE ↕		↕ NULLABLE ↕	DATA_DEFAULT	↕ COLUMN_ID ↕	↕ COMMENTS ↕
1	C65_MEMBER_ID	NUMBER (5, 0)		No	(null)	1	(null)
2	C65_LOCATION_ID	NUMBER (5, 0)		No	(null)	2	(null)
3	C65_MEMBER_SURNAME	VARCHAR2 (30 BYTE)		No	(null)	3	(null)
4	C65_MEMBER_NAME	VARCHAR2 (30 BYTE)		No	(null)	4	(null)






  

	↕ DATA_TYPE ↕	↕ COLUMN_NAME ↕		↕ NULLABLE ↕	DATA_DEFAULT	↕ COLUMN_ID ↕	↕ COMMENTS ↕
1	NUMBER (5, 0)	C65_MEMBER_ID		No	(null)	1	(null)
2	NUMBER (5, 0)	C65_LOCATION_ID		No	(null)	2	(null)
3	VARCHAR2 (30 BYTE)	C65_MEMBER_SURNAME		No	(null)	3	(null)
4	VARCHAR2 (30 BYTE)	C65_MEMBER_NAME		No	(null)	4	(null)

## Object Details Dialog – Columns Tab (Sorting columns)



The User can also order the information displayed in the columns, this is achieved by double clicking on the column title, one double click will order the contents in ascending order, a second double click descending, a third double click restores the original sequence

	 COLUMN_NAME	 DATA_TYPE	 NULLABLE	DATA_DEFAULT	 COLUMN_ID	 COMMENTS
1	C65_ADDRESS_ONE	VARCHAR2 (30 BYTE)	No	(null)	9	(null)
2	C65_ADDRESS_POSTCODE	VARCHAR2 (10 BYTE)	Yes	(null)	12	(null)
3	C65_ADDRESS_THREE	VARCHAR2 (30 BYTE)	Yes	(null)	11	(null)
4	C65_ADDRESS_TWO	VARCHAR2 (30 BYTE)	Yes	(null)	10	(null)
5	C65_CREATED_BY	VARCHAR2 (30 BYTE)	No	(null)	14	(null)

Note the appearance of an arrow pointing upwards to signify ascending order.



## Object Details Dialog – Columns Tab (Filter)

The filter option can be opened by clicking to the right of the column ...

	COLUMN_NAME	DATA_TYPE
1	C65_ADDRESS_ONE	VARCHAR2 (30 BYTE)
2	C65_ADDRESS_POSTCODE	VARCHAR2 (10 BYTE)
3	C65_ADDRESS_THREE	VARCHAR2 (30 BYTE)

This will display all the unique values in the column for the User to select ...

	COLUMN_NAME	DATA_TYPE
1	C65_ADDRESS_ONE	VARCHAR2 (30 BYTE)
2	C65_ADDRESS_POSTCODE	VARCHAR2 (10 BYTE)
3	C65_ADDRESS_THREE	VARCHAR2 (30 BYTE)
4	C65_ADDRESS_TWO	VARCHAR2 (30 BYTE)
5	C65_CREATED_BY	VARCHAR2 (30 BYTE)
6	C65_CREATED_DATE	DATE
7	C65_DATE_OF_BIRTH	DATE
8	C65_LOCATION_ID	NUMBER (10)
9	C65_MARITAL_STATUS	VARCHAR2 (10 BYTE)

	COLUMN_NAME	DATA_TYPE	NULLABLE	DATA_DEFAULT	COLUMN_ID	COMMENTS
1	C65_PHONE	VARCHAR2 (20 BYTE)	Yes	(null)	13	(null)



Above the Column's data are several icons ...



The first icon allows the User to 'pin' (freeze the pane, allowing another dialog to be displayed for another table, if this isn't selected the dialog is overwritten by every subsequently selected Table.

The second icon is the Edit Table option and will be examined in more detail later in the course.

The refresh icon is the third option, followed by the Actions option which will be examined later in the course.



The syntax for creating a unique key within the create table is as follows ...

```
create table <table_name>  
(<column_name> <data_type>(<length>) not null  
, <rest of the columns ... >  
, constraint <key name> unique (<column_name>)  
);
```

The create table dialog in SQL Developer will create a separate command for both Unique and Non-Unique indexes different from the above.



The syntax for creating a unique key separate from the table create is as follows ...

```
alter table table_name
```

```
add constraint key_name unique(column_name)
```

```
alter table cities
```

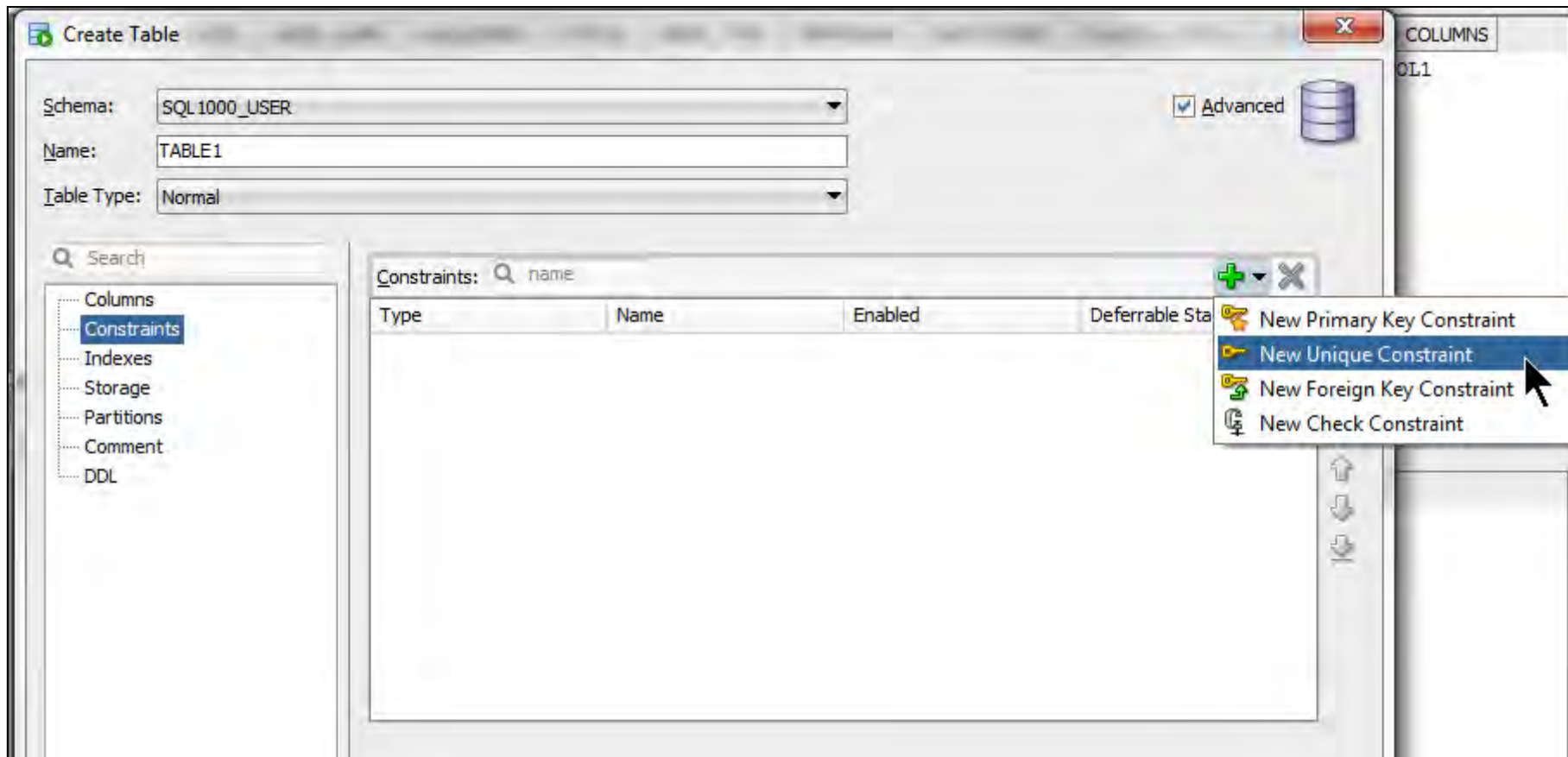
```
add constraint ct_uk unique(city)
```



## Constraints/Indexes – Add Unique Key



To create a Unique Key at the same time as a table in SQL Developer, the advanced checkbox must be ticked ...





## Constraints/Indexes – Add Unique Key

Right click on the table to add once the table has been created ...

The screenshot shows the SQL Developer interface. On the left, a tree view displays a list of tables under 'Tables (Filtered)', including CAR\_MANUFACTURERS, CAR\_MODELS, CHART\_ARTISTS, CHARTS, CLUB\_65, EMPLOYEE\_DETAILS, EMPLOYEE\_HISTORY, LOCATION\_TYPES, MEMBERSHIP, MLOGS\_PRODUCTS, and MVIEWS. A right-click context menu is open over the 'CAR\_MANUFACTURERS' table. The 'Constraint' option is selected, and a sub-menu is displayed with 'Add Unique...' at the bottom, which is being pointed to by a mouse cursor. In the foreground, the 'Add Unique' dialog box is open. It has two tabs: 'Prompts' (selected) and 'SQL'. The 'Prompts' tab contains the following fields: 'Owner' (SQL1000\_USER), 'Name' (CAR\_MANUFACTURERS), 'Constraint Name' (empty), and four 'Column' dropdown menus (Column 1, Column 2, Column 3, Column 4). At the bottom of the dialog are 'Help', 'Apply', and 'Cancel' buttons.