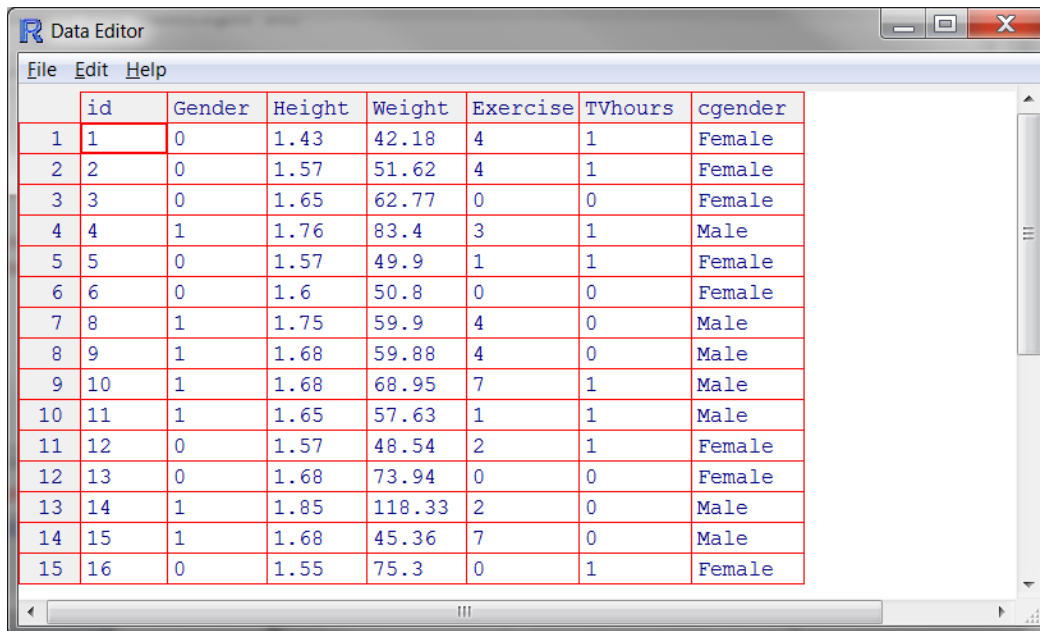**Scatter Plot**

Scatter plot is a graphical method to visualize the correlation between two variables. The following examples demonstrate how to make a scatter plot for exploring the relation between two variables Weight and Height variables, and also how to set different markers to make scatter plots for different categories (gender) of subjects in the data. The data used for this example is Practice1.rda. This data file contains Weight, Height, and Gender variables.

|	id	Gender	Height	Weight	Exercise	TVhours	cgender
1	1	0	1.43	42.18	4	1	Female
2	2	0	1.57	51.62	4	1	Female
3	3	0	1.65	62.77	0	0	Female
4	4	1	1.76	83.4	3	1	Male
5	5	0	1.57	49.9	1	1	Female
6	6	0	1.6	50.8	0	0	Female
7	8	1	1.75	59.9	4	0	Male
8	9	1	1.68	59.88	4	0	Male
9	10	1	1.68	68.95	7	1	Male
10	11	1	1.65	57.63	1	1	Male
11	12	0	1.57	48.54	2	1	Female
12	13	0	1.68	73.94	0	0	Female
13	14	1	1.85	118.33	2	0	Male
14	15	1	1.68	45.36	7	0	Male
15	16	0	1.55	75.3	0	1	Female

To **make simple scatterplot**, for exploring relation between Weight and Height variable with R Commander, **Step 1:** click on Graphs and then select Scatterplot.
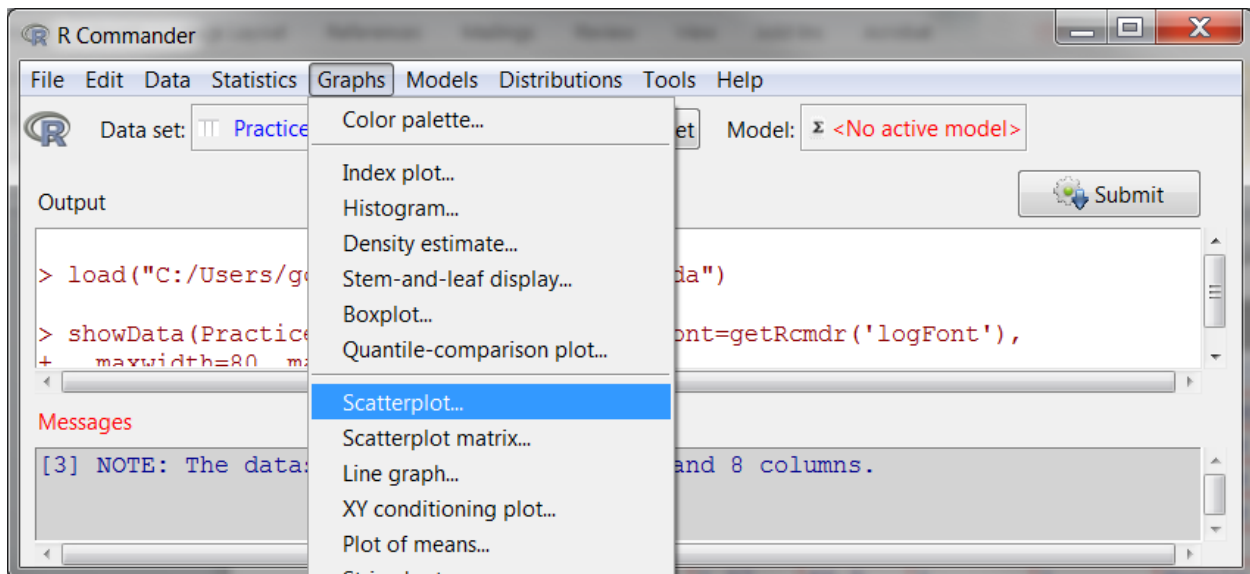
Step 2: Select a variable (Height) for **x-variable** and select the other variable (Weight) for **y-variable** as shown in the following figure, and then click **Options** tab if you wish to check or uncheck some options. I usually only leave Least-squares line option checked. When done with the selection click OK. R Commander will show the scatterplot in a graphic window.
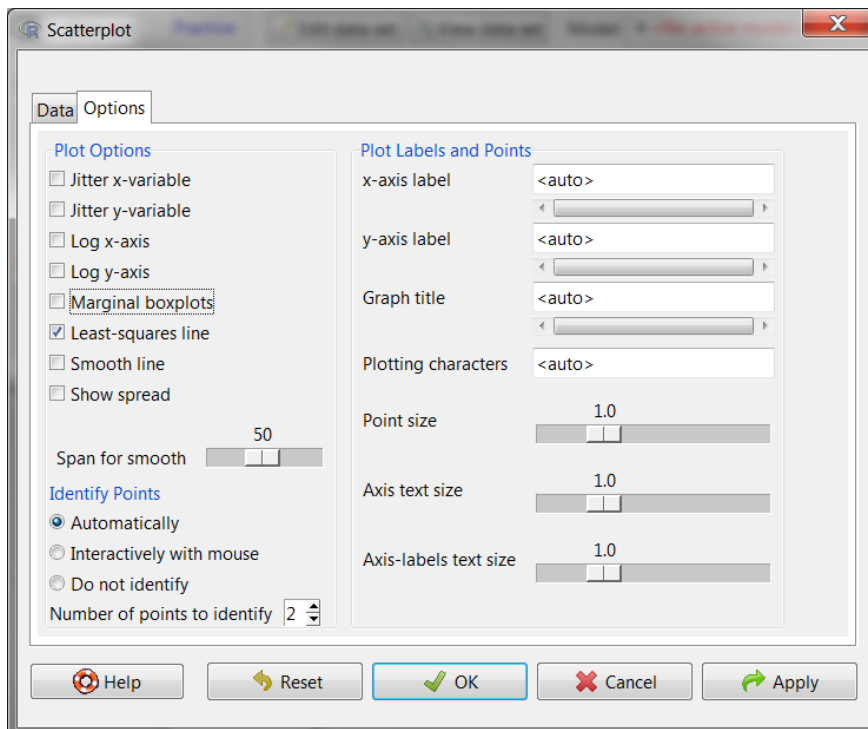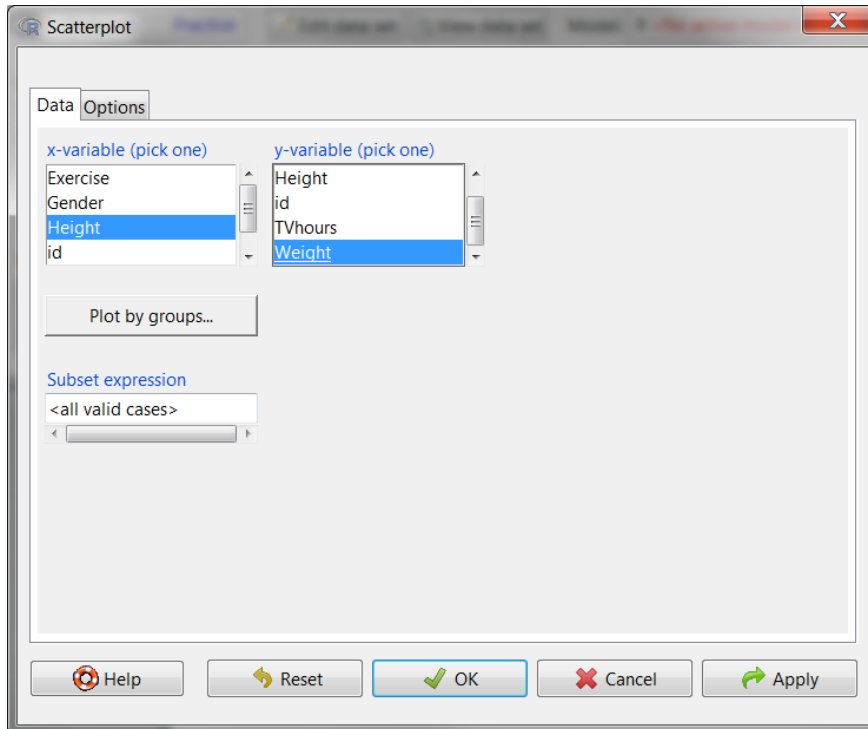
The scatterplot from the steps above will look like the following.
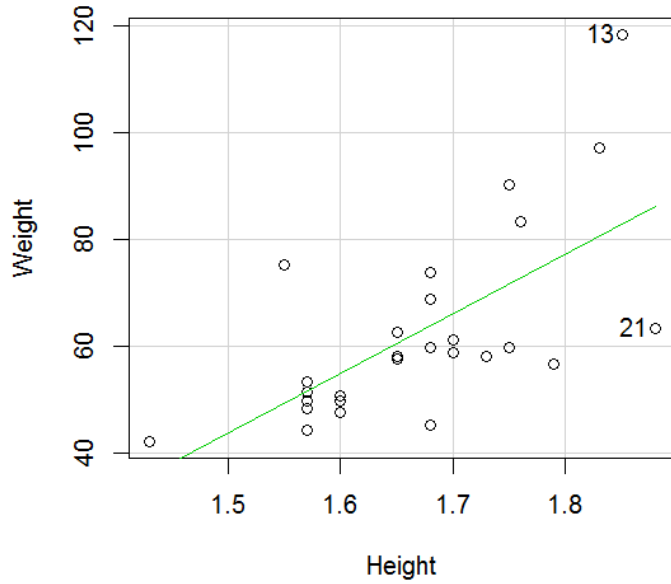
To display scatterplot for different gender using different markers, one can click on **Plot by groups…** button in the **Scatterplot window** and select the gender variable (cgender) in the **Groups** window, and then click **OK** button. The variable listed in the Groups window has to be factor variable, otherwise it won't be shown in the Groups window.