

How to Use JTable to Display Data

 [zentut.com/java-swing/how-to-use-jtable-to-display-data](https://www.zentut.com/java-swing/how-to-use-jtable-to-display-data)

JTable class represents Swing table component. JTable provides rich functionality for managing appearance and behavior of the table component. JTable directly extends *JComponent* and implements several model listener interfaces such as *TableModelListener*, *TableColumnModelListener*, *ListSelectionListener*... etc. JTable also implements scrollable interface therefore table is usually placed in a *JScrollPane*.

Each JTable has three models *TableModel*, *TableColumnModel*, and *ListSelectionModel*.

- TableModel is used to specify how the table's data is stored and retrieval of this data. JTable's data is often in two-dimensional structure such as a two-dimension array or a Vector of Vectors. TableModel also is used to specify how data can be editable in the Table.
- TableColumnModel is used to manage all TableColumn in term of column selection, column order and margin size.
- ListSelectionModel allows table to have different mode of selection such as single, single interval and multiple interval selections.

We can create a table by using its constructors as follows:

JTable Constructors	Description
JTable()	Create an empty table
JTable(int rows, int columns)	Create a table with rows and columns empty cell.
JTable(Object[][] data, Object[] heading)	Create a table with data specify in two-dimensional array <i>data</i> and column heading <i>heading</i>
JTable(TableModel dm)	Create a table with a given TableModel
JTable(TableModel dm, TableColumnModel cm)	Create a table with a given TableModel and TableColumnModel.
JTable(TableModel dm, TableColumnModel cm, ListSelectionModel sm)	Create a table with a given TableModel, TableColumnModel, and ListSelectionModel.
JTable(Vector data, Vector heading)	Create a table with data in vector of Vectors <i>data</i> and column headings <i>headin</i> .

Example of using JTable to display stock quotes

In this example, we will display stock quotes in a table using JTable class.

- First we specify the column heading in the *columns* array.
- Then we use two-dimensional array *data* to store stock quotes data.
- Next we create an instance of JTable by passing table data and column heading to the constructor.
- Finally we place the table JScrollPane and add it to the main frame.

Here is the screenshot of the JTable demo application:



Code	Name	High	Low	Close	Volume	Change	Change %
MBF	CITYGRO...	10.16	10.16	10.16	200	0.08	0.79
MBL	BANK OF ...	12.66	12.66	12.66	6600	0.13	1.04
MJP	Morgan S...	24.97	24.97	24.97	1000	-0.04	-0.16

```
1 packagejtabledemo1;
2 importjavax.swing.*;
3 importjava.awt.*;
4 publicclassMain{
5     publicstaticvoidmain(String[]args){
6         finalJFrame frame=newJFrame("JTable Demo");
7         String[]columns={"Code","Name","High","Low",
8             "Close","Volume","Change","Change %"};
9         Object[][]data={
10             {"MBF","CITYGROUP",10.16,10.16,10.16,200,0.08,0.79},
11             {"MBL","BANK OF AMERICA",12.66,12.66,12.66,6600,0.13,1.04},
12             {"MJP","Morgan Stanley Dean Witter & Co.",24.97,24.97,24.97,1000,-0.04,-0.16}
13         };
14         JTable table=newJTable(data,columns);
15         JScrollPane scrollPane=newJScrollPane(table);
16         table.setFillViewportHeight(true);
17         JLabel lblHeading=newJLabel("Stock Quotes");
18         lblHeading.setFont(newFont("Arial",Font.TRUETYPE_FONT,24));
19         frame.getContentPane().setLayout(newBorderLayout());
20         frame.getContentPane().add(lblHeading,BorderLayout.PAGE_START);
21         frame.getContentPane().add(scrollPane,BorderLayout.CENTER);
22         frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
23         frame.setSize(550,200);
24         frame.setVisible(true);
25     }
26 }
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```