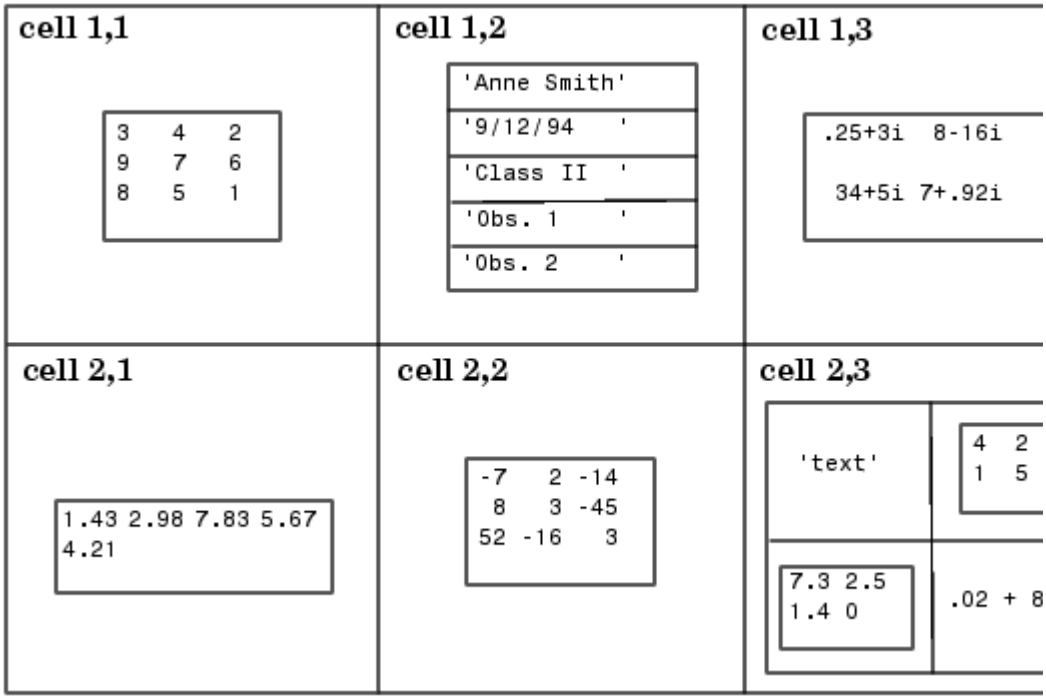
# Cell Arrays

A cell array provides a storage mechanism for dissimilar kinds of data. You can store arrays of different types and/or sizes within the cells of a cell array. For example, you can store a 1−by−50 char array, a 7−by−13 double array, and a 1−by−1 uint32 in cells of the same cell array.

This illustration shows a cell array that contains arrays of: unsigned integers (cell 1,1), strings (cell 1,2), complex numbers (cell 1,3), floating−point numbers (cell 2,1), signed integers (cell 2,2), and another cell array (cell 2,3).




To access data in a cell array, you use the same matrix indexing as with other MATLAB matrices and arrays. However, with cell array indexing, you use curly braces, `{}`, instead of square brackets an parentheses around the array indices. For example, `A{2,5}` accesses the cell in row 2 and column 5 of cell array `A`.

> **Note** The examples in this section focus on two−dimensional cell arrays. For examples of higher−dimension cell arrays, see Multidimensional Arrays.

The following list summarizes the contents of this section:

- Creating Cell Arrays
- Obtaining Data from Cell Arrays
- Deleting Cells
- Reshaping Cell Arrays

- Replacing Lists of Variables with Cell Arrays
- Applying Functions and Operators
- Organizing Data in Cell Arrays
- Nesting Cell Arrays
- Converting Between Cell and Numeric Arrays
- Cell Arrays of Structures
- Function Summary

Function Summary Creating Cell Arrays