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| Usability Engineering | CS2511 Practical Sessions |

Dynamic Web Interfaces (iv)

The aim of this exercise is to create a web-page that reads an array, creates an object to represent each element in the array, and sets the position, colour, etc., of the objects according to certain values held in the array.

For example, the array might hold information concerning TV sets. For each model, the array might hold the make, model-number, screen-size, price, etc.. This information might be displayed graphically such that (e.g.) vertical position on the page indicates price, horizontal position indicates screen-size, colour of object indicates make, etc.

You may find this exercise easier if you tackle it in stages.

First, create the array. A set of sample data (for TV sets) is available on the CS2511 web-page.

Next, write code to read the array and extract (e.g.) the price. The array is multi-dimensional, and in the sample data price is the third item in each line (index number 2), so you could access this using the code:

objData[i][2]

where objData is the name of the array, and i is an integer representing one of the lines in the array.

Next, write code to loop through the array and create an object to represent each line in it (as in previous exercises). Use the price value, obtained as above, to set (e.g.) the horizontal position of each object.

When this is working correctly, write code to obtain another parameter from the display, e.g., screen-size. In the sample array, screen-size is the first item on each line, so it can be accessed using the code:

objData[i][0]

Modify the code so that the screen-size is used to set (e.g.) the vertical position of each object.

When this is working correctly, write code to obtain yet another parameter from the display, e.g., manufacturer's name. In the sample array, this is the seventh item on each line, so it can be accessed using the code:

objData[i][6]

Write an if/else or switch statement that assigns a colour to each object that indicates the manufacturer.

Arrange the screen display so that the objects are positioned against a coloured background or grid, and add labels and values to the axes.