Computer Programming: Skills and Concepts
Tutorial 6 (Tue 8 Nov – Fri 11 Nov)

Structured Data

Consider the following code:

```
typedef int mark;

typedef struct {
  int a;
  int *b;
} foobar;

mark x = 2.6;
foobar y;
y.a = x;
y.b = &y.a;
x++;
int z = *y.b;
```

What is the value of `x, y.a, y.b, z` ?

Structs, strings and arrays

How would you store a student record, consisting of student id number, first and last name and entry semester in a data structure?

Programming

Take a look at the functions provided by the string library `<string.h>`

Write a function with prototype

```
MakePlural(char *singular, char *plural);
```

This function is intended to take a singular noun `singular` and construct its plural form `plural`.

For those whose first language is not English, the following rules cover most (but not all) native or nativized English words:

- Words form the plural by adding `-s` (e.g. `cat/cats, tie/ties`), except that

- Words ending in `-s, -z, -x, -sh, -ch` add `-es` (e.g. `boss/bosses, wish/wishes`), and

- Words ending in $-X$y, where X is a consonant (i.e. *not* `a, e, i, o, u`) change the `-y` to `-ies` (e.g. `cherry/cherries` but `boy/boys`).