ES 112.02/04 Homework #7
Fall 2003-2004

Copying a Substring

Your task in this homework is to write a function that copies a substring of a given string into another string. The problem is perhaps best illustrated with an example. Suppose the string you have is:

```
Faculty of Engineering and Architecture
```

and you want to copy just the word Engineering into another string. Your job is to write a C function with the following prototype:

```
void substrcpy(char *target, const char *src,
               int startIndex, int length);
```

The function obviously returns nothing. The first argument, `target`, is where the substring will be copied into. The second argument, `src`, is the string from which a substring will be taken. The third argument, `startIndex`, is the index of the first character to be copied within src. The last argument, `length`, indicates how many characters should be copied.

Also, note that after copying, you have to make sure the string in target is properly null-terminated. Also, the function should never copy characters beyond the end of `src`.

The function you write should work properly with (and be submitted together with) the following code:

```
#include <stdio.h>

void substrcpy(char *target, const char *src,
               int startIndex, int length);

main()
{

  char string[] = "Faculty of Engineering and Architecture";
  char copy1[20];
  char copy2[20];

  substrcpy(copy1, string, 11, 11);
  substrcpy(copy2, string, 27, 12);

  printf("%s and %s", copy1, copy2);

  return 0;

}
```

And when run, should produce the following output:

```
Engineering and Architecture
```