

CS341 - Operating Systems

Lab Assignment #2

Spring 2004

The purpose of this assignment is to write a function that will *parse* a string into *tokens* (or *words*), similar to what the shell is required to do.

For this assignment, you are to write a function with the following prototype:

```
int makearg(char *s, char ***args); // or int makearg(char s[] i, char **args []);
```

This function should accept a (c-type) string and an array of pointers to char (i.e., the same type as `argv` in a C program), and should return the pointer defined to point to an array pointing to the separate tokens on the command line, as well as the number of tokens found as the function return. If some problem occurred during the operation of the function, the value returned should be `-1`.

For example, if you were to call the function using the following code:

```
char **argv, str[] = "ls -l file";  
int argc;  
argc = makearg(str, &argv);
```

it should produce the following situation in memory:

