CS201 -- Data Structures and Discrete Mathematics I

Fall 2003

Project 0 A command line arguments parser and turnin

Due time: 12:00 noon September 5, 2003 Friday

In this project, you are to implement a simple command line arguments parser (named **parse)** in C. It can abstract digits in the command line arguments and print them out. For example, when you enter the following commands, your program should display the following respectively:

parse 123

Your program should display:

123

parse 123ab45

Your program should display:

123

45

***parse 123ddd36 356mn7*8**

Your program should display:

123

36

356

78

You should name the executable file compiled from your program as **parse**. The **main** function in your program should look like:

```
void main( int argc, char *argv[] )
{...}
```

Here, the value of "argc" is the number of arguments in the command line. And the character string argv[] holds all the content of the command line. For example, for the command line:

parse 123ab45

we have: argc=2, argv[0]=parse, argv[1]=123ab45.

(Hint: You may use the function ***int isdigit (int c)*** to test whether a character is a decimal-digit character. To use it, you have to add ***#include <ctype.h>*** in the beginning of your program. You may use the “man” facility of UNIX to get more details.)

When you finish the program, you should create a directory containing the following files:

-- a **.c** file (your program file)

-- the executable file named **parse**

-- a plain text file (named **Readme.txt**) explaining the strategy of your program
-- If you use **makefile**, turnin the makefile as well. (You are not required to use it.)

Next, name the directory as **YourUserName_proj0**

Here "**YourUserName**" refers to your CS user name on bert/ernie. You can check it in the ICL lab located in 2260 SEL.

Then **turnin** your directory using the following command:

turnin -c cs201 -p proj0 YourUserName_proj0

You can check the content already turned in by using:

turnin -v

You are encouraged to test the **turnin** command early. Your latest turnin overwrites previous one.