16.216: ECE Application Programming

Fall 2013

Lecture 22: Key Questions October 28, 2013

- 1. **Example**: Write a function for each of the following:
- a. int readStrings(char *s);

Repeatedly read strings from standard input until the input string matches s. Return the number of strings read.

b. void copyNull(char *s1, char *s2, int n); Copy the first *n* characters of s2 into s1, and make sure that the new version of s1 terminates with a null character. c. int fillString(char *s);

Repeatedly read strings from standard input and concatenate them to s until there is no room in the string. Return the final length of the string.

For example, if s is a 6-character array already holding "abcd":

- User enters "e"—string is full; return 5
- User enters "ef"—there's not enough room; return 4

2. Explain the use of the fopen() function.

3. Explain the use of the fclose() function.

4. Explain how fscanf() and fprintf() are used for formatted file I/O.

- 5. **Example:** Write a program to:
 - Read three integers from file myinput.txt
 - Determine the sum and average of those values
 - Write the original values, sum, and average to file myoutput.txt.