

16.216: ECE Application Programming

Fall 2014

Lecture 33: Key Questions

December 1, 2014

1. **Example:** Write each of the following functions:
 - a. **`char *readLine()`**: Read a line of data from the standard input, store that data in a dynamically allocated string, and return the string (as a **`char *`**)
Hint: Read the data one character at a time and repeatedly reallocate space in string

- b. **int **make2DArray(int total, int nR):** Given the total number of values and number of rows to be stored in a two-dimensional array, determine the appropriate number of columns, allocate the array, and return its starting address

Note: if **nR** does not divide evenly into **total**, round up. In other words, an array with 30 values and 4 rows should have 8 columns, even though $30 / 4 = 7.5$