Day 35 Highlights

1. Reminders
   1. Project six is due on April 19, Friday at 5pm
   2. zyBooks exercises (Chapter 10) due next Monday
2. Review on recursions
   1. Integers, n 🡪 n-1, n 🡪 n/10, n🡪n/2, n🡪n/8
   2. Strings?
   3. Arrays
   4. Linked lists
3. Recursion and strings
   1. The first character is str[0] or \*str
   2. The rest of the string is pointed by str+1
4. Example: **length** – the number of characters in a string
   1. If the first character is ‘\0’, return 0
   2. Else length is 1 + the length of the rest of the string

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| **ITERATIVE**  **int length(char \*str){**  **int count = 0;**  **char \*ptr=str;**  **while (\*ptr != ‘\0’) {**  **count = count + 1;**  **ptr++;**  **}**  **return count;**  **}** | **RECURSIVE**  **int length(char \*str){**  **if (\*str == ‘\0’)**  **return 0;**  **return 1 +**  **length(str+1);**  **}** |

1. Code recursive functions for:
   1. Counting the letters in a string
   2. Counting the number of A’s in a string