

Computer Programming (EE1005)

Homework #7

(Due: May 6)

8.11: Write a program that uses random number generation to create sentences. The program should use four arrays of pointers to char called article, noun, verb and preposition. The program should create a sentence by selecting a word at random from each array in the following order: article, noun, verb, preposition, article and noun. As each word is picked, it should be concatenated to the previous words in an array large enough to hold the entire sentence. The words should be separated by spaces. When the final sentence is output, it should start with a capital letter and end with a period. The program should generate 20 such sentences. The arrays should be filled as follows: The article array should contain the articles "the", "a", "one", "some" and "any"; the noun array should contain the nouns "boy", "girl", "dog", "town" and "car"; the verb array should contain the verbs "drove", "jumped", "ran", "walked" and "skipped"; the preposition array should contain the prepositions "to", "from", "over", "under" and "on".

After the preceding program is written and working, modify it to produce a short story consisting of several of these sentences. (How about the possibility of a random term paper writer?)

8.13: Write a program that inputs a telephone number as a string in the form (555) 555-5555. The program should use function strtok to extract the area code as a token, the first three digits of the phone number as a token and the last four digits of the phone number as a token. The seven digits of the phone number should be concatenated into one string. The program should convert the area-code string to int and convert the phone-number string to long. Both the area code and the phone number should be printed.