

Lab 4.2 You Talkin'to Me?

In this lab, you will create a simple sentence generator using lists. (Adapted from BJC)

1 - Let's Talk

1. Create a variable for each part of speech below, and set each variable to hold a list of words that fit that part of speech. Some examples are given, but feel free to use your own.

Part of Speech	Example words
noun	giraffe, monkey, boy, girl, elephant, ...
verb	jumps, runs, sleeps, sits, dances, ...
adjective	big, small, loud, silly, young, old, sleepy, ...
adverb	quickly, excitedly, angrily, happily, sadly, ...
article	a, the
preposition	under, over, around, near, beside, ...

2 - Reporting Phrases

1. Write a custom reporter block called "noun phrase" that reports a noun phrase where each word is chosen randomly from the lists you created. A noun phrase consists of an article, an adjective, and a noun in that order.
2. Write custom reporter blocks like "noun phrase" for each of the phrase types listed below.

Phrase type	Construction
prepositional phrase	preposition, noun phrase
verb phrase	adverb, verb, preposition phrase
sentence	noun phrase, verb phrase



3 - Making Sentences

1. Write code so that when you press the space bar, a random sentence is generated and a sprite says the resulting sentence.
2. BONUS: Modify your code so that a noun phrase can either be the construction from part 1.2 or a single proper noun (e.g. a person's name). Your code should randomly decide which version of a noun phrase to use.
3. BONUS: Modify your code so that a verb phrase can sometimes leave out the prepositional phrase. Your code should randomly decide to include the prepositional phrase or not.

Content

Programming language constructs to support input/output, logic, decision structure, and loops

This program involves quite a bit of organization and computer programming knowledge. You are probably combining user input, variables, random numbers, decision structures, loops and screen output.

These programming language constructs include the knowledge and skills needed to get programs to run. It's amazing how they can be used to create such different programs. This program generates sentences, but using the same constructs you could create mathematics software, or video games, or scheduling software. When it comes to applying these constructs to create cool programs, the possibilities are endless!

4 - Changing Our Vocabulary

1. Write a script so that when the 'n' key is pressed, the user is prompted for a new noun and that noun is added to list of nouns. After that point, the new noun entered by the user should be able to appear in sentences.
2. Write scripts like the one you wrote in part 2.1 to add words to the other lists. Use the keys listed below.

Key	Part of speech
v	verb
j	adjective
d	adverb



Key	Part of speech
a	article
p	Preposition

3. Write a script so that when the 'x' key is pressed, the user is asked for one of the parts of speech and then for a number (n). Your script should remove the nth item from the list of words for the specified part of speech. For example, if the user types in "verb" and "3" then you should remove the 3rd word from the list of verbs. The removed word should no longer appear in sentences.

Lab 4.2 Criteria	
1.1 6 lists	0.5 points
2.1 "noun phrase" reporters	0.5 points
2.2 3 phrase and sentence reporters	0.5 points
3.1 sentence script	0.5 points
3.2 Bonus: Add proper nouns	0..25 points
3.3 Bonus: Make prepositional phrase for verb phrases	0.25 points
4.1 Add nouns	0.25 points
4.2 Add other 5 parts of speech	0.25 points
4.3 Remove a part of speech	0.5 points
PROJECT TOTAL	3.5 points

