START OF QUIZ
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Question 1

Topic: Lecture 3
Source: Lecture 3

Describe the concept of the "Minimum viable product", and how it relates to using lexicons.
(1)

Question 2

Topic: Lecture 2
Source: Lecture 2

Do you think it's possible for a language not to follow a Zipfian curve? What consequences might that have on communication (if, let's say, if the curve were linear)? (2)

Question 3

Topic: Lecture 1
Source: Lecture 1

How would you quickly identify the words in a sentence? (1)

Question 4

Topic: Lecture 2
Source: Lecture 2

If we have a new corpus, how might we automatically determine (without ML): A. The language it's written in. B. Whether it is annotated C. If it is multilingual D. genre? Briefly explain your reasoning. (2)

Question 5

In French, negation is often indicated by "ne ... pas" (ie, "je ne parle pas" - "I am not speaking"; "tu ne conduis pas" - "You are not driving", etc.). However, in speech, one of the two is often dropped: "je ne parle." or "tu conduis pas.". Using this information, how would you determine whether a corpus was composed of written or spoken French? You don't need to write the code, but explain the logic that you would use to come to this conclusion. (2)

Question 6

Topic: Lecture 3
Source: Lecture 3

What properties of dictionaries make them an efficient choice for nesting complex lexicons.
(1)

Question 7

Topic: Lecture 1
Source: Lecture 1

What are two ways to check if a word is all capital letters (neither should require more than one function call)? (1)

Question 8

Topic: Lecture 4
Source: Lecture 4

We discussed two alternative methods for noise reduction: removing all words above a certain frequency, or only removing those from a curated lexicon. Name an advantage to both.
(1)

Question 9

Topic: Coding
Source: Coding

Grimm's law is a linguistic phenomenon that describes how sounds in language (mostly related to the Germanic languages like English, Dutch, German, Norwegian, Icelandic, etc.) changed over time (specifically from some progenitor thousands of years old - Germanic languages observed the change, while Romance languages did not). For example, the /p/ sound in Latin evolved into the /f/ sound in English across many words - compare "piscus" with "fish"; "pater" with "father"; "pedus" with "foot" (there are a couple other changes in there, too - see if you can spot them!). If you had a time machine, and could bring a computational toolkit to help Jacob Grimm formulate his law, what would you need, in terms of lexicons, keeping in mind that the /p/ -> /f/ change is only one of a handful of sound changes, and that the changes occured over dozens of languages? Explain (with pseudocode, if necessary), how you would start to identify trends in the data (assuming that your computer still works in the 19th century)? (3)

END OF QUIZ