START OF QUIZ
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Question 1

Topic: Lecture 8
Source: Lecture 8

Why do Python programmers like working with (t/c)sv files? When are they appropriate, and what advantages do they provide over .txt files? (1)

Question 2

Topic: Lecture 5
Source: Lecture 5

Describe the purpose of the various types of brackets in regexes, and how they differ. (1)

Question 3

Topic: Lecture 5
Source: Lecture 5

Imagine you have a block of text with paragraphs separated by blank lines. How would you use regex to find the start of each paragraph? What assumptions would you make about the formatting of the text? (1)

Question 4

Topic: Lecture 6
Source: Lecture 6

Beautiful Soup parses the children of a tag as a list. Why do you think they didn't use a set, instead, given the faster access times? Give 2 reasons, and briefly explain. (1)

Question 5

Topic: Lecture 7
Source: Lecture 7

In class, we built a POS tagger that tries to give a majority tag to a word; if it's out-of-vocabulary, it backs-off to Regexes. This is clearly overly simplistic. List two assumptions that are being violated by this model. (1)

Question 6

Topic: Lecture 6
Source: Lecture 6

Consider using XML to represent a machine learning model's architecture. What XML tags might be useful for representing layers, activation functions, and connections between layers (you don't need to describe a deep-learning architecture - describe one you're familiar with)? If this doesn't seem possible, explain why not. (2)

Question 7

Topic: Lecture 7
Source: Lecture 7

I mentioned in class that POS tagging is often viewed as a pre-processing step for many CL tasks. What assumptions are we making (at least 3) when including it in our NLP pipeline? Do you think these are reasonable assumptions, and if they fail, is it worth the effort to solve the problem, or just ignore POS tagging? (2)

Question 8

Topic: Lecture 8
Source: Lecture 8

In class, I mentioned that we always want to close a file correctly. Beyond freeing up system resources, it also "flushes the buffer", which ensures that any current read or write operations that are in the job queue, but haven't yet been processed, are completed. Knowing what you do about encodings, what is a possible ramification of not flushing the buffer? Explain at least 2. (2)

Question 9

Topic: Long
Source: Lecture 5

In class, we've taken a brief look at both prefixes and suffixes, but there are other ways of inflecting words. "circumfixes" wrap around a word, such as the German past participle marker "ge-t" ("ich spiele" - "I play"; "ich habe gespielt" - I have played). Likewise, "infixes" occur inside of a word - "cupful" + Plural -> "cupsful", or in Tagalog: "bili" -> "to buy"; "bumili" -> "X is buying". Finally, "reduplication" occurs when part or all of a token is repeated to indicate some feature, such as repetition or future intent in Tagalog: "aray" -> "day"; "arayaray" -> everyday; "basa" -> "to read"; "babasa" -> "will read (in the future)". Which of these are best suited for regexes, and which features of regexes are they exploiting? Are there any that are mostly unsuited to regexes? Why? (3)

END OF QUIZ