START OF QUIZ
Student ID:
98189038,Zhong,Yucai

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I agree that all answers provided are in my own words, and that I will not discuss the contents of this quiz with any of my fellow students until after the exam period has completed for everyone. Furthermore, any response that used generative AI tools has been rephrased into my own interpretation, and has been appropriately cited.

Signature: _____

Question 1

Topic: Lecture 6
Source: Lecture 6

Why is XML well-suited to representing linguistic data? (1)

Question 2

Topic: Lecture 8
Source: Lecture 8

Give 2 reasons to use a zip file. (1)

Question 3

Topic: Lecture 7
Source: Lecture 7

Can you think of any classes of words in English where the stem and the lemma will always be identical? Why is that of little interest to us? (1)

Question 4

Topic: Lecture 5
Source: Lecture 5

List one advantage that regular expressions have over string comparison, and one disadvantage to using them. (1)

Question 5

Topic: Lecture 8
Source: Lecture 8

What are two advantages of using .py files over .ipynb files for deployment, and two reasons why .ipynb files are preferred for prototyping or development? (1)

Question 6

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 7

Topic: Lecture 5
Source: Lecture 5

Imagine you are processing a text document where dates are written in multiple formats, such as ”12-05-2024”, ”05/12/2024”, or ”12 December 2024”. How would you write a regex to capture these date formats (just the logic)? What assumptions would you make? (2)

Question 8

Topic: Lecture 6
Source: Lecture 6

Suppose you've trained a Named Entity Recognition (NER) model using XML-annotated text data, but it consistently fails to recognize locations. What steps would you take to determine if the problem lies with the model, the training data, or both? What resources would you need to investigate further? (2)

Question 9

Topic: Long
Source: Lecture 6

You've been hired by a company that is working with their own version of XML that they call "NQAXML" (Not-Quite-As-eXtensible Markup Language). It provides stronger restrictions on tag names (they must be all uppercase, and no longer than 10 characters long), and it doesn't allow nested spans with identically-named tags. Like HTML, it also has a set of tags that must appear in every document. Describe your process for creating a data validator that takes an XML file, and ensures that it satisties the rules of NQAXML. (3)

END OF QUIZ