

START OF QUIZ

Student ID:

58115197,Zhang,Miaolin

Question 1

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 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 6

Source: Lecture 6

XML can be opened by most plain-text text editors. Name a benefit and a disadvantage of this feature. (1)

Question 4

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 5

Topic: Lecture 7

Source: Lecture 7

What impact does lemmatization or stemming have with respect to the Zipfian curve? How might that affect our algorithms? (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 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 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 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 satisfies the rules of NQAXML. (3)

END OF QUIZ