START OF QUIZ
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Question 1

Topic: Lecture 7
Source: Lecture 7

How might we use SRL in the process of slot-filling? (1)

Question 2

Topic: Lecture 7
Source: Lecture 7

Imagine that we have a great dialogue Q/A system that can fill slots with ease, and return relevant answers with high probability. However, our ASR system is pretty bad (it does really poorly with accents that are not "General American"). The model was trained on standard English text. Describe a few of the errors you can imagine the system making, and how we can improve the quality of our model (assume we can't improve the ASR). (2)

Question 3

Topic: Lecture 5
Source: Lecture 5

Jeopardy divides its questions into categories. Explain how this would help Watson improve the confidence in its answers. (1)

Question 4

Topic: Lecture 6
Source: Lecture 6

Neural Q/A (even before ChatGPT) was significantly better than previous models. Beyond just the traditional benefits of deep learning that we know of, (such as longer dependencies, etc.), why is this the case? (2)

Question 5

Topic: Lecture 5
Source: Lecture 5

Bert accepts a single string as input, but Q/A requires a question and a potential source. Describe how we deal with this problem. (1)

Question 6

Topic: Lecture 8
Source: Lecture 8

When training BERT Dialogue systems, we often delexicalize the entries. Briefly explain the benefits this can provide to the model. (1)

Question 7

Topic: Lecture 6
Source: Lecture 6

Provide a reasonable logical representation of the question "Who starred in Casablanca?" (1)

Question 8

Topic: Lecture 8
Source: Lecture 8

We waited until the last week of classes to talk about policy-making systems (like the one in ChatGPT), but several other systems you've looked at over the program could be considered to have a policy algorithm in place. Briefly describe one, and how you view it as a decision policy. (2)

Question 9

Topic: Long
Source: Lecture 8

As more data and computing power are becoming available, chatbots are becoming more generalists, able to answer questions in a large variety of topics. That said, specialized dialogue bots can often be very good at their jobs (such as Watson being much better at Jeopardy than ChatGPT). Can you think of a way that we might be able to leverage the strengths of each system to improve the other? Write out pseudocode for where you might inject dialogue bots into ChatGPT, and simultaneously use ChatGPT to improve the dialogue systems. This is a huge, theoretical problem, and I'm not looking for you to solve it - I'm just interested in your thought process about where the models might be able to build off each other. (3)

END OF QUIZ