Your grade: 100%

Your latest: **100%** • Your highest: **100%** • To pass you need at least 80%. We keep your highest score.

Next item →

1. **True or False.** Because of the knowledge cut-off, an LLM cannot answer questions about today's news. But with RAG to supply it articles from the news, it would be able to. 1 / 1 point

- (•) True
- ( ) False

Correct
RAG provides an LLM with additional information and context from external documents that it can reason through to answer a question. So RAG would enable an LLM to answer questions about current news articles.

2. You want to build an application to answer questions based on information found in your emails. Which of the following is the most appropriate technique? 1 / 1 point

- ( ) Pretraining an LLM on your emails.
- ( ) Fine-tuning an LLM on your emails, whereby we take a pre-trained LLM and further train it on your emails.
- ( ) Prompting (without RAG), where we iteratively refine the prompt until the LLM gets the answers right.
- (•) RAG, where the LLM is provided additional context based on retrieving emails relevant to your question.

Correct
RAG can be used to give an LLM access to new, external sources of information that it can reason through to formulate an answer to your question. So a RAG system that provides access to your emails is the best approach to get an LLM to answer your questions.

3. What does the idea of using an LLM as a reasoning engine refer to? 1 / 1 point

- (•) This refers to the idea of using an LLM not as a source of information, but to process information (wherein we provide it the context it needs, through techniques like RAG).
- ( ) The idea of using an LLM to play games (like chess) that require complex reasoning, but having its output moves in the game.
- ( ) Reasoning engine is another term for RAG.
- ( ) This refers to pretraining an LLM on a lot of text so that it acquires general reasoning capabilities.

Correct
The ability of LLMs to process information is one of the features that makes them such powerful and useful tools.

4. **True or False.** By making trusted sources of information available to an LLM via RAG, we can reduce the risk of hallucination. 1 / 1 point

- ( ) False, because the LLM has learned from a lot of text from the internet (perhaps >100 billion words) to hallucinate, so adding one more short piece of text to the prompt as in RAG won't make any meaningful difference.
- ( ) True, because the LLM is now restricted to outputting paragraphs of text exactly as written in the provided document, which we trust.
- ( ) False, because giving the LLM more information only confuses the LLM more and causes it to be more likely to hallucinate.
- (•) True, because RAG allows the LLM to reason through accurate information retrieved from a trusted source to arrive at the correct answer.

Correct
RAG can be used to give an LLM access to new, trusted sources of information that it can reason through to formulate an answer to your question. This helps prevent the model from hallucinating because it doesn't know the answer.

5. An ecommerce company is building a software application to route emails to the right department (Apparel, Electronics, Home Appliances, etc.) It wants to do so with a small, 1 billion parameter model, and needs high accuracy. Which of these is an appropriate technique? 1 / 1 point

- ( ) Pretrain a 1 billion parameter model on around 1 billion examples of emails and the appropriate department.
- ( ) Pretrain a 1 billion parameter model on around 1,000 examples of emails and the appropriate department.
- ( ) Fine-tune a 1 billion parameter model on around 1 billion examples of emails and the appropriate department.
- (•) Fine-tune a 1 billion parameter model on around 1,000 examples of emails and the appropriate department.

Correct
Fine-tuning an existing model is an effective way to get it to learn how to correctly route emails to the specific departments in the ecommerce company. Fine-tuning can be done well with 1000 to 10,000 examples.