Q1: Provide a brief overview of who you are, encapsulating your goals and what you seek in your next professional opportunity or role.

Q2: In recent years, numerous advancements have emerged in the field of Artificial Intelligence. What particularly captures your enthusiasm among these innovations?

Q3: In this exploratory question, a company is dealing with a critical issue where upon the CEO's posts, numerous chat bots respond with social links, propaganda messages, or fake news. How would you, as a data scientist, approach mitigating this issue at a high level, sharing your initial thoughts on addressing the problem?

Q4: Which features should we examine in relation to the spam bot issue mentioned in the previous question?

Q5: How should a dataset be structured (or look like) for training models aimed at detecting spam bots, and what approach would you take to gather this dataset?

Q6: Could you provide a brief explanation of one-hot encoding with an example, summarizing the concept in a single line?

Q7: This entails the implementation of a spam bot detector/classifier. Create a high-level flow diagram for the spam-bot detector/classifier, specify the framework you intend to use, and outline your starting point in the process.

Q8: What is Grouped Convolution? Which ML model first introduced the concept of Grouped Convolution?

Q9: How can logistic regression be implemented from scratch in Python and NumPy for the MNIST dataset, which comprises 10 classes, with a specific focus on distinguishing between any two selected classes? (Write code)

Q10: Find # of parameters?

