**LSEG Sample Questions Using…**

**Bard AI**  
Sure, here are some technical questions that you may be asked in the coding rounds or interview for the LSEG Software Engineer role:

* Implement a function to reverse a linked list.
* Given an array of integers, find the maximum sum of contiguous subarray.
* Implement a sorting algorithm (such as quicksort or merge sort).
* Write a program to find the longest common substring of two strings.
* Design a data structure to store a set of elements such that the elements can be inserted and deleted quickly.
* Implement a function to check if a given number is prime.
* Given a binary tree, find the maximum depth of the tree.
* Implement a function to find the kth smallest element in an array.
* Design a distributed system to store and retrieve data.
* Implement a security protocol to protect data from unauthorized access.

**Chat GPT**

Here are some specific technical topics and sample questions that could be asked during coding rounds or interviews:

**1. Data Structures and Algorithms:**

Sample Questions:

* Implement a function to reverse a linked list.
* Write a program to find the nth Fibonacci number.
* Solve the problem of finding a pair of numbers in an array that sum up to a target value.

**2. Programming Languages (Java, C#, Python, etc.):**

Sample Questions:

* Write a Python program to check if a string is a palindrome.
* Implement a Java class to represent a basic calculator.
* Create a C# function to find the factorial of a given number.

**3. Problem-Solving and Logic:**

Sample Questions:

* Given an array of integers, find the longest subarray with consecutive elements.
* Write an algorithm to determine if a given string has balanced parentheses.
* Solve a coding problem that involves finding the shortest path in a grid.

**4. Object-Oriented Programming (OOP):**

Sample Questions:

* Create a class hierarchy for different types of vehicles (car, bicycle, etc.).
* Explain the concept of method overriding and provide an example in your chosen programming language.
* Design a basic banking system using classes for accounts and transactions.

**5. System Design (Basic Understanding):**

Sample Questions:

* Explain the client-server architecture and its advantages.
* Design a URL shortening service like bit.ly.
* Discuss the components and interactions in a simple online shopping system.