Hi All,

You have been selected by Bank of America to interview for the role below in NYC. The interview will take place on the phone on tomorrow afternoon starting tomorrow and last no longer than 20 Minutes. I will be sending you an invite shortly.

This is a great opportunity to get your foot in the door with a great team at a major bank

*Bank of America’s Data & Analytics is looking for a Junior Java Developer to join their growing team. This is a consulting position and he/she will  be contributing to a growing Java/Groovy based automation framework and adding to existing automation test coverage and maintaining existing Unix/Perl/Python scripts.*

***Requirements:***

* *B.S. or M.S. in Computer Science or similar applied technical field*
* *Natural inclination towards programming in general*
* *Good understanding of the Java, Unix shell scripting and/or Perl/Python*
* *Exposure to FIX protocol is desirable*
* *You are methodical and detail oriented, with solid analytical skills and problem solving ability*
* *You are a good person to work with, get along well with others, and are able to work effectively in a team*

In preparation for your interview tomorrow please see below questions asked to previous candidates. Please research and make sure you know the answers to these questions in advance.

**Please make note of the questions he asks you and send me a summary once the interview is complete.**

1.       What is your favorite programming language?

2.       What was the hardest coding assignment you’ve done.

3.       Given 2 numbers, how would you swap their values without using math, built-in functions or a third variable.

4.       How to find a file using java?

5.       How to delete all the files in a specific directory?

6.       In UNIX, how do you list all the files in a specific directory?

7.       In UNIX What does Grep stand for and what does it do?

8.       Find max value in an array without built-in functions

9.       Given an array of integers, determine which integers are prime numbers

10.   Given a text file, how do you find all the unique words inside the text file?

11.   Find the word with maximum number of occurrences in a given text file

12.   How would you show the first 100 prime numbers?” (How to get all prime numbers between 1-100) - This was followed up with, “how would you determine if any number is prime?”

13.   Return a list of prime numbers between 20 and 50?

14.   Return a list of prime numbers between 20 and 40?

15.   Return a list of prime numbers between 50 and 100?

16.   Implement prime number in a code algorithm and give the answer of 21 mod 20 / 19.

17.   Implement a way to check for duplicates?

18.   How do you find the nth Fibonacci number? How would you optimize this? (assuming that the most optimal way was not given)

19.   Given a website filled with bear facts, how would you count all the times the word 'bear' has occurred? Be aware that 'bear' in double quotes should be included in the count, but the word 'unbearable' should not be included.

20.   What if there were multiple websites of bear facts? How would you keep track of the count for each website?

21.   What is the modulus operator?

22.   Given two *.txt* files containing JSON strings with the same keys but different values, how would you parse the strings to determine which keys contain the same values? You cannot use any external modules

23.   Can you explain the difference between a B-Tree and a Binary Tree?

24.   Have you heard of a Directed Acyclic Graph?

25.   (Coding) Implement a breadth-first search. What data structures would be involved?

26.   (Coding) Reverse the order of a singly-linked list.

27.   (Riddle) Given a 3 gal. bucket and a 5 gal. bucket and all the water you need, measure out 4 gallons.

28.   (Logic) How would you find a loop in a faulty binary tree structure?

29.   Swap two variables without the use of a 3rd.

30.   Find max value in an array without built-in functions?

**You will be required to answer these syntactically using a programming language (i.e Java, Python) – please do not use pseudocode to convey your answers.**

If you have any questions please let me know.

Best Regards,