**WeLab Bank**

**Technical Test**

**NAME:**

**DATE:**

**POSITION:**

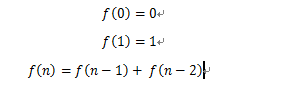
**Why a test?**

When considering applicants for engineering positions, it is important to make sure that you have the minimum technical skill to make an impact here. We believe that your true technical skill cannot be determined by your educational background or previous work experience alone. So naturally, it is a good idea to see your code to get some insight into your approach to solving problems. That is why we ask that you take this pre-test after confirming the following notices:

[1] Please answer directly in the body of this file.   
[2] Please avoid using the Internet, literary references, etc. to answer the questions.  
[3] Please do not disclose the content of this test to others.

**Q1**

Where n is a positive integer, the function satisfies the following.



1. Please create a program to find. (You can write in any language that you are good at.)
2. Use the program you created in (1) to find .

**Q2**

Please implement a program that lists the nodes of a random binary tree by nodes at the same depth.

**Q3**

**(1)** Imagine you are playing a board game. You roll a 6-faced dice and move forward the same number of spaces that you rolled. If the finishing point is “n” spaces away from the starting point, please implement a program that calculates how many possible ways there are to arrive exactly at the finishing point.

**(2)** If n=610, how many possible ways are there to arrive exactly at the finishing point?

**Q4**

Please answer the questions below.

|  |  |
| --- | --- |
| **Question** | **Answer** |
| What specifically do you want to achieve at WeLab Bank? |  |
| What kind of Web or smartphone applications are you interested in?  \* Please name at least one app that you always use, and at least one that you have found out about within the last year. |  |
| List up to 3 kinds of technology you have gotten interested in recently, and why you are interested in them. |  |
| 1. What is the most technically difficult or interesting thing you have experienced in development or programming so far? 2. Why did you find it difficult / interesting? 3. What was your solution, and how did you implement it? (Please answer in as much detail as possible) |  |
| Public repository URLs (e.g.: GitHub, Bitbucket, etc.) |  |
| Public social accounts (if applicable; e.g.: Twitter, Facebook, etc.) |  |
| Which 3 technical books or articles have made a big impact on you? |  |

Thank you for your time!