LINE / LINE Fukuoka Corporation

Pre-Test

NAME:

DATE:

Thank you for applying to LINE/LINE Fukuoka Co., Ltd.

When considering applicants for engineering positions, we strive to place an emphasis on their true technical skill, which cannot be measured by their educational background or previous work experience alone. 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 $f(n)$ satisfies the following.

$$f(0) = 0$$
$$f(1) = 1$$
$$f(n) = f(n-1) + f(n-2)$$

(1) Please create a program to find $f(n)$. **(You can write in any language that you are good at.)**

(2) Use the program from **(1)** to find $f(8181)$.

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 are there 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 tell us about the technologies you frequently use.

Category	Example	Your Experience
Languages	C/C++, Java, Ruby, Python, Perl, PHP, Scala, Groovy, Objective-C, Swift	
Object Containers	EJB, Spring Framework, Guice, Seasar2	
MVC	Spring MVC, Struts 2, Play, Grails	
ORM	MyBatis, Hibernate	
Testing	JUnit, TestNG, Cucumber, Selenium, WebDriver	
IDE/Editor	Eclipse, IntelliJ IDEA, vim, Emacs, Sublime Text, Atom, Visual Studio, Netbeans	
UML/Diagram	Enterprise Architect, Rational XDE, LucidChart	
SCM	CVS, Subversion, Git, Mercurial, Perforce, Visual SourceSafe	
Builds	Ant, Maven, Gradle, Ivy, sbt	
CI/Quality	Jenkins, Bamboo, Sonar, CircleCI	
Java Profilers	Eclipse TPTP, YourKit, JProfiler	
Web Applications Performance Profilers	JMeter, Grinder	
Issue Trackers	JIRA, Redmine, Bugzilla, Trello	
Agile Processes	Scrum, XP, Kanban	
Social Coding Code Review	GitHub, Bitbucket, Stash, Crucible/FishEye	

Q5

Please answer the questions below.

Question	Answer
What specifically do you want to achieve at LINE Fukuoka?	
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)**	1. 2. 3.
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!