Technical Assignment - Backend

Thanks for your interest in Truecaller! This document details the next part of the interview process, a chance for you to demonstrate your coding skills. The sections below contain instructions for what to implement, as well as guidelines for how to submit your assignment. Good luck!

Matching Prefixes

Given a list of string prefixes of variable length, the assignment is to implement a method that takes a string as a parameter, and returns the longest prefix that matches the input string. A prefix matches if the input string starts with that prefix. The list of prefixes to match should be taken as configuration by your solution. For instance, given a list of prefixes 'foo', 'tru', and 'true', and the input 'truecaller', your method should return 'true', since it's the longest matching prefix. We've provided you with a text file with sample prefixes that you can use.

Sample Data

The attached file is a list of prefixes, one per line, that can be used to test your implementation. You may use these in your submission, but keep in mind that your solution should work well with any list of prefixes.

Instructions

Your task is to implement a method with the functionality defined above in either Java or Scala. It is not sufficient for your solution to do a linear scan of the list of prefixes. Feel free to pre-process the list of prefixes as you see fit, so that multiple inputs can be looked up efficiently.

What we hope to see in your submitted assignment is an ability to follow the specification and to solve a problem in code. We value readability and clear style. Your method should be submitted within a project, not as a single source file. Unit tests are a great way to show that your implementation works correctly. You may use a readme or comments to document your approach.

Packaging Guidelines

Include all relevant files — code, tests, build files, but no binaries — in a compressed directory. You can use the format <initials>_backend.tgz, as in "jbd_backend.tgz", to name the attachment.