May 4, 2014

# LogiNext Solutions Programming Test

## About LogiNext

LogiNext provides data collection and analytics services to logistics companies to help them optimize delivery networks and partner with the right companies to improve and expand their business. It helps courier and express logistics companies to meet their need for advanced technology and to improve their day-to-day operations and provide superior customer service.

LogiNext is a US based startup, currently expanding operations in Indian market where the courier and express logistics sector, in particular, is highly fragmented and unorganized. There is a long way to go before the industry as a whole becomes structured and LogiNext aims to provide the driving force for the same. And that is why LogiNext has an extremely motivating and ambitious work environment in order to generate this driving force from within.

LogiNext is a company filled with people who have worked either for successful startups or for innovation oriented Fortune 500 companies. These people bring unique values, discipline and problem solving skills to nurture the innovative and entrepreneurial work culture at LogiNext.

## About the Programming Test

LogiNext has a comprehensive and selective interview process to find out the best of the best candidates for this role. This test is quite similar to what a UI develoepr will be doing during his/her tenure on a daily basis at LogiNext. There is only one problem statement in this interview, which tests technical skills of the candidates, especially in Java/J2EE, MySQL, web services, programming frameworks and basic Data Visualization.

The candidate is free to use Internet, websites and reference material for additional guidance but use of any copyright information or code may lead to disqualification and prohibitive actions. At LogiNext, we have a zero tolerance policy for plagiarism and other violations of our ethics policy. Ethics violations of any kind are taken seriously and may result in dismissal from our program. The best way you can keep yourself from committing an act of plagiarism is to be properly informed.

For further information or any questions regarding or during the test, please contact our test administrator at +91 7770021100.
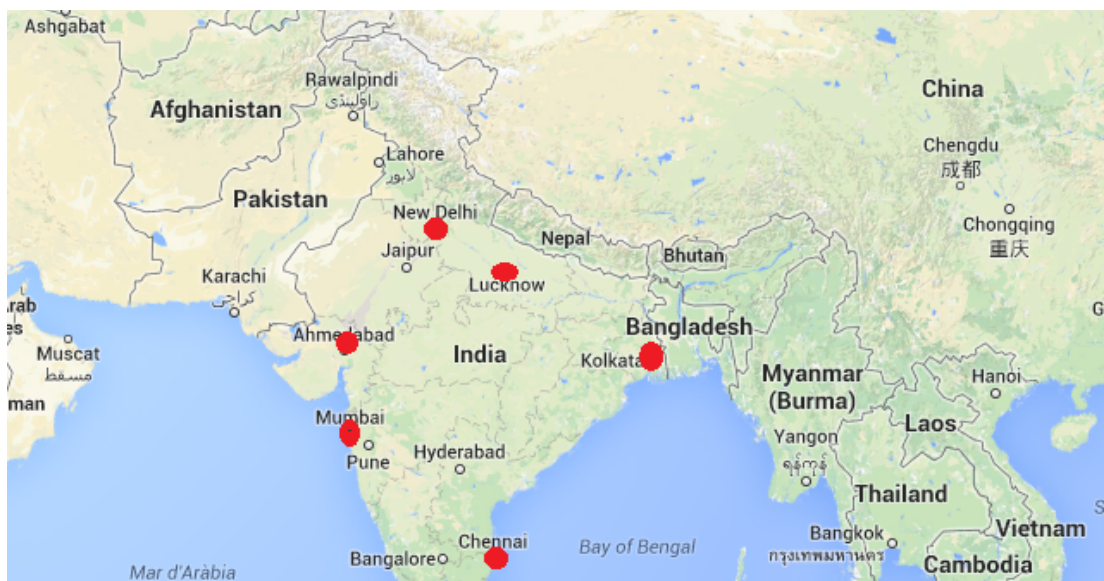
## Pre-requisites
1. Install MySQL (or any database of your choice)
2. Have access to Internet
3. Install Apache Tomcat
4. Install Eclipse IDE (Or any other IDE of your choice)
5. Install Java JDK 1.7
6. Basic Knowledge Java Web Service
7. Basic Knowledge of JavaScript Visualization Libraries

## Problem Statement:
Below is a list of latitude and longitude coordinates for certain points on map of India. Insert these coordinates into a MySQL database table. Your task is to read this data points using Java code and display these on Google Maps in a web browser using Google Maps API. Please use only Java and JavaScript as primary technologies.

| No. | Latitude | Longitude |
|---|---|---|
| 1 | 18.975 | 72.8258 |
| 2 | 23.03 | 72.58 |
| 3 | 13.0839 | 80.27 |
| 4 | 22.5667 | 88.3667 |
| 5 | 26.847 | 80.947 |
| 6 | 28.6139 | 77.2089 |

The co-ordinates should be a solid red colored bubble. Below is a sample of the output:

## Scoring Pattern:

• Basic Programming in Java/J2EE – 10 Points
• Database Structure, Connection and Related Tasks – 10 Points
• Use of Web Services – 20 points
• Use of Spring in Web Service – 50 points
• Rendering Points on Google Maps – 20 Points
• Quality of Code – 10 points

## Bonus Question for Additional 70 Points:

Create another page that displays the Google map again. Load all the co-ordinates in a jQuery data table and each co-ordinate should be a hyper link. Clicking on the hyperlink should make a bubble on the map at that coordinate on the map. Clicking on the first co-ordinate (18.9750, 72.8258) will show a bubble on the map as shown below. Below is a sample of how this should look in a browser:



| ID | Latitude, | Longitudes |
|---:|-----------|-----------:|
| 1 | 18.9750, | 72.8258 |
| 2 | 23.0300, | 72.58 |
| 3 | 13.0839, | 80.27 |

## Submission and Results:
At the end of the test, please submit your Java project files and folder with SQL scripts in zipped file format at careers@loginextsolutions.com. Also attach a brief instruction sheet (Not more than a short bulleted list) on how to open and run your project.
Upon submission, LogiNext recruitment team will review and share the results and next steps within 48 to 72 hours.

## Terms and Conditions
NOT AN OFFER OR CONTRACT OF EMPLOYMENT. Under no circumstances shall the submission of an entry into the test or anything in these Terms be construed as an offer or contract of employment with LogiNext. You acknowledge that you have submitted your entry voluntarily and not in confidence or in trust. You acknowledge that no confidential, fiduciary, agency or other relationship or implied-in-fact contract now exists between you and LogiNext and that no such relationship is established by your submission of an entry under these Terms.

NO RECOURSE TO JUDICIAL OR OTHER PROCEDURES. To the extent permitted by law,t he rights to litigate, to seek injunctive relief or to make any other recourse to judicial or any other procedure in case of disputes or claims resulting from or in connection with this test are hereby excluded, and any contestant expressly waives any and all such rights. If such exclusion or waiver is not permitted by law, the contestant agrees to submit to the exclusive jurisdiction of the courts located within the city of Mumbai, Maharashtra to resolve any legal matter arising from the dispute or claims. Candidates further agree that LogiNext will not be liable for any errors, ambiguities or other inaccuracies caused by LogiNext in the design, execution, judging or other aspects of the test.

ELIMINATION. A candidate may be prohibited from participating in this test if, in LogiNext's sole discretion, LogiNext reasonably believes that the candidate has attempted to undermine the legitimate operation of the test by:
1. Providing false information concerning his/her identity, postal address, mail address or telephone number;
2. Breaching any of the provisions set forth in these Terms;
3. Threatening, harassing or interfering with the ability of other candidates to effectively participate in the test;
4. Threatening, harassing or interfering with LogiNext administrators or other employees;
5. Communicating or publishing information concerning the content of the problems, or solutions to the problems, with other candidates or non-candidates, either directly or directly, before or after the end of the Round, other than as permitted.
6. Refusing to comply with these Terms.