# Lead Java Developer – Technical Test (8th July, 8 am – 2 pm)

**Time**: 6 hrs. Time will start 15 minutes after you receive the email for this assignment.

Please develop a web-based application with below requirements using IDE of your choice.

**Deliverables:** Deliverables (as listed below) can be submitted by uploading the artifacts on GitHub (github.com). You can share the GitHub link in reply to same email notifying the completion of task.

* Full Code
* JAR file for the developed application
* Any Documentation

**Tech stack:**

* Java 8
* Spring Boot / Spring Framework
* Front end: Your choice
* Database: Your choice
* Scripting language: Shell Script

**Task description:**

1. Develop a Spring boot web application to register personal information in an embedded database. The application should use Maven to compile and build.
   1. Develop the functionality to receive data using two methods as below:
2. Create a Web form for use to enter 4 attributes viz. Name, Age, Email, Gender (feel free to use UI technology of your choice)
3. Create an API end point to receive data in JSON format for same above 4 attributes.

Note: Each record should have an auto generated unique id in database.

* 1. Develop the function to extract/display dataset (created in section 1.1) from the database

1. On web page in UI
2. Write the code to expose the dataset in JSON from API endpoint in below use cases
   1. To extract data based on a desired parameter value (e.g. all males record)
   2. Complete dataset

Dataset in JSON format should have below 5 properties:

* Id (Auto generated number)
* Name (No special characters - !@#$%^&\*()\_+= allowed)
* Age (Should not be negative number)
* Email (Must have valid email format)
* Gender (Must be Male, Female, Other)

E.g. {

"Id": null, "Name": "John Doe", "Age": 35, "Email": "john.doe@test.com", "Gender": "Male"

}

1. Document the Entry Points for end users and other applications to interact with your application.
2. Write a Shell Script in Linux that runs every 5 minutes to check application status (if it’s running) and log the result in a log file.