

Software Developer Technical Test – Java

The primary applications that Java software developers will be working on are desktop applications, communicating with PCR devices. This test is used to replicate some of those day-to-day tasks and offer a platform to evaluate different approaches to software development.

You should limit your time on the task to around **60 minutes**, since the discussion is not based around the quantity of work produced. You should do enough to be able to run the application and explain your reasoning of the problem and what you would do given more time.

The task

- You will create a GitHub repository to store your solution.
- You will create a Java application that will consume a .jar file named “instrument-sim.jar” included with this test.
- The instrument-sim.jar will have a method called “getReading”. This method will return an integer value. The method will block the calling thread for a random number of seconds.
- You will call the getReading method as often as possible, and output the values to the UI. A button will be used to start and stop the polling of counts.
- You will architect the solution in such a way that the “instrument-sim.jar” may feasibly be replaced by a .jar file that will call a real instrument, with as little code change as possible.
- You may provide short instructions on how we should run the application

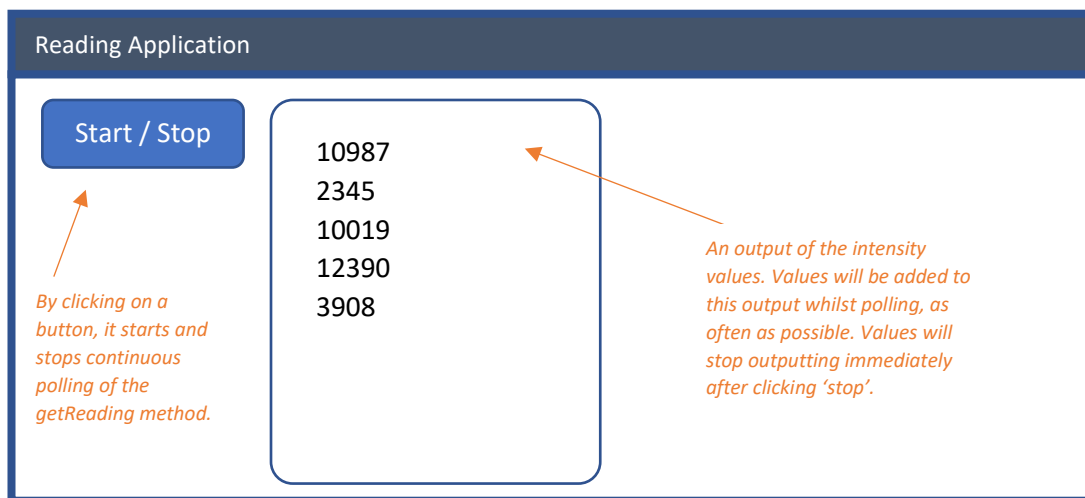


Figure 1 – Example wireframe of the final application. You do not need to be constrained to this layout.

The evaluation

- The evaluation **will not be quantitative** e.g. a mark out of 10.
- The evaluation during the interview will be a conversation around your understanding of the problem, your approach, your approach in a real world environment and any challenges you faced. Don't worry if not all of the points are completed in the timeframe.
- You are required to share your GitHub repository either as public access (or if you prefer privately with the user “mikenovacyt”) no less than 24 hours before your technical interview.