Featurespace Coding Test - Java

Please write a Java application that allows a user to query and show details for a given UK postcode.

The app should use the freely available (no API key needed) REST API at <http://postcodes.io>

Feel free to use any libraries you feel suitable, EXCEPT for any published that directly relate to postcodes.io – we’re interested in how you build an application to directly interact with a JSON-formatted REST API.

Details:

* Console output only – no UI needed.
* Your application should accept a postcode as an argument to its main() method.
* It should query the API to:
  + Validate the postcode parameter – invalid postcodes should produce an error message
  + Print the country and region for that postcode.
  + Print a list of the nearest postcodes, and their countries and regions.
* API methods of interest:
  + GET /postcodes/{POSTCODE}
  + GET /postcodes/{POSTCODE}/validate
  + GET /postcodes/{POSTCODE}/nearest
* Consider carefully your error handling (eg API failure / timeout, invalid input etc)
* Please add some unit tests - don’t go overboard, but show us an example or two of some edge cases or things that could go wrong.
* Time-depending, you could also consider additional API calls, such as postcode suggestions.

Test postcode to use: **CB3 0FA** (Featurespace Cambridge office)

Please pay attention to how you structure your code - we will be looking at how you chose to solve the problem, how clean and well-structured your code is, and how easily it could be extended and adapted.

This should take around than 60 minutes. Please note how long it took you, any assumptions you made, and also if you’d had more time which things you might improve.

Please zip up and send us your code in advance, or bring your code on a memory stick. It must work, and we will load it in an IDE (IntelliJ, but you can use whatever you prefer to build). We’ll ask you to run it and talk us through your code in the interview, and perhaps make some changes.

You may use any publicly available libraries you feel suitable, but you must bring all dependencies with you (or use something like maven). You may assume you will have internet access.