

Code Test - Get Current Weather

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Business requirement:

We need to build a web application to display current weather for 3 Australian cities: Sydney, Melbourne and Wollongong. There should be a dropdown list on web page for city selection, when city is changed corresponding real-time weather information should be displayed dynamically like below:

City	Melbourne
Updated time	Thursday 11:00 AM
Weather	Mostly Cloudy
Temperature	9°C
Wind	32km/h

Technical requirement:

1. Project should build on Github for source control and management. Your check-in and check-out history should be there.
2. The Delivery must be compiled and tested successfully using Maven.
 - a. There must be Maven build script.
 - b. There must be Unit test and related test class.
3. You can use any online Weather API to get source data.
4. You would use some open source framework like SpringMVC and any JavaScript library to implement the Web application for backend and frontend implementation.
5. You need to consider your code style, design pattern, code reusable, code scalable, etc. For instance, thinking about we need to add more cities in future.
6. The source code and structure should be clean and clear. Irrelevant contents and comments should be removed but useful comments should be there.
7. Hardcode is not allowed. Variable should be managed through configuration files such as XML or Properties file.
8. The delivery period is two calendar days since you receive it.

Delivery:

1. Github URL with your buildable project.
2. Design document, which includes how you implement this application from technical perspective. UML diagrams are also preferable.
3. User guide document, which includes how to build and use the application. Please include some screenshot of your application as well.

Please note this test is to show your capability as a SENIOR developer, so not only the outcome but also detail will be evaluated. Good luck!