



Programming Test

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Description

I have enclosed my relevant Java project and would like to take an opportunity to explain those project files one by one into brief here.

Data Model Entity classes:

There are around 6 entity/data model Java classes, I have defined these data model/ entity Java classes to carry the JSON files (Before, After, Diff) actual data with attributes. I have also defined the cardinality between these all Java classes accordingly as the cardinality defined into its JSON files. Further details, are already explained within each and every Java class. Those classes are listed down under the directory of: src/main/models

Candidate - To Carry Before and After JSON files data.
CandidateDiff - To Carry Diff.json file data.
CandidateMetadata - To carry Before and After json files data.
Diff - To Carry Diff.json file data.
Metadata - To carry Before and After json files data.
MetaDiff - To Carry Diff.json file data.

Other Java Classes:

There are few other classes those actually to handle the main business logic of the task. Further explanation, of each class and its methods

EntityFactory
JsonReader
JsonWriter
MainDateFormat
Parser

Test Cases:

As for now I just wrote two test cases and certainly these two test cases required to more considerations and time to make more reformed/harness. Due to time constraint, I could just make it run these test cases to check the actual functionality. However, there is an ample possibility to write more Unit test cases out of this implemented available functionality.

Time utilized:

I spent around 5 hours to implement the whole functionality and took around 6 hours to fix the DateTime zone issue. So there are overall around 10-11 hours I spent.

Deficiencies:

I found this JSONObject object is quite outdated and exists into JDK 5 as there are many latest JSON parsing objects available to manage and map the parsing in minimum time, with less effort and more effecting way. I found, the time was a biggest constraint for this whole assignment.

Improvements:

1. Testcases – Test cases need to further harness and require more time
2. Timezone UTC date issue into class name – MainDateFormat (I wrote main method class to test my Timezone UTC issue as this issue, I have not able to be resolved, please follow the comment I wrote into this particular class).

