ILP CW1 Specifications (Programming Task)

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As you read through the ILP Course Specification (in section "Course resources" [1] in the ILP Learn page) you have gained an idea what the ILP requirements, specifications and demands are all about[2].

To be ready for the real challenges ahead in CW2 this CW1 focusses on implementing some basic buildings blocks, which you will reuse in CW2.

To achieve this and make your general experience as positive as possible a JAR-file (IlpDataObjects.jar) has been provided. It contains a namespace *interfaces,* with two interfaces **LngLatHandling** and **OrderValidation** you will have to implement.

As an aid to you all necessary business objects and most system constants are defined inside the JAR as well (the link to the GitHub repository is on the Learn page as well).

Your task is now – based on the given information – **to create the Ilp project** (as specified in the ILP Course Specification) **and an implementation of these two interfaces.**

This involves:

- Creating the project with Maven support and use Maven as a build tool.
- Adding the provided JAR as a dependency (like an external library)
- Implement the two interfaces LngLatHandling and OrderValidation given the necessary validation needed.
    - LngLatHandling is all about handling coordinates and moves and involves some mathematical calculations

    - OrderValidation is about validating orders and content.
      Every OrderValidationCode has to be tested for

On GitHub you will find a sample repository (https://github.com/mglienecke/IlpRestTest) which has an exemplary (non-working) implementation for an OrderValidation interface. In addition, there is an example (TestIlpJar.java) which calls the order validation.

This example is absolutely arbitrary and does not work – it is intended only to give you an idea how to instantiate objects locally and call the implementation!

During marking we will apply an auto-marker where every possible combination of errors is thrown at your implementation, and we will check if your implementation captures these correctly.

[1] https://www.learn.ed.ac.uk/ultra/courses/_112434_1/outline/edit/document/_9457283_1?courseId=_112434_1&view=content

[2] The technical details might still change a bit (as of writing this document), yet the overall idea and what is needed for CW1 remains.

This is pretty much the same as the later implementation in CW2, where you will read the orders from a web-service and validate them on the fly.

This programming task has a maximum mark of 8 points (in relation to the entire ILP course).