Formal Languages

Task 1 Instructions

> **Goal of the task**
> - Practice building a parser for integer expressions.

1 Organization and management

All practical assessment tasks will be carried out in teams of three members. Exceptionally, we may allow a team of two. Teams will remain unchanged throughout the duration of the course.

2 Instructions

1. Download the Java project template from Moodle.

2. Study its structure based on what we have learned in class. It is a simple interpreter/parser for integer expressions.

3. Follow Chapter IV of the lecture notes titled "Getting ready for the practical assessment tasks of the course" to understand how this interpreter was built.

4. Implement the logic of the class IntExpr.java. There is already an implementation (commented out) for you to use. However, we encourage you to play with your own implementation.

5. Check that your implementation works by running the test at `/test/java/IntExprTest.java`. The test loads a set of integer expressions at `/test/resources/testcases/input1.txt`, compute their value, and test those values against those provided at `src/test/resources/testcases/expected-output1.txt`.

6. In addition to the Test class, we have provided an App class for you to run the parser. Both can be used for testing purposes.

7. You can add more specification files, test cases, etc. We recommend you check your implementation thoroughly.

8. The submission consists of a single zip file that contains the following files:

   (a) IntExpr.java

   (b) A Readme.md file with the following information:
      - Title
      - Project overview
      - A statement on the contribution of each member.

3   Evaluation

The task either *passes* or *fails*. The task passes if all test cases ran by the marker passes, otherwise it fails.