

Language processing IE (3^o year)

Second practical work - 2018/2019

3 GeoJSON Parser -> Google Maps

In the sequence of the first practical work, where the goal was to implement a syntactical validator for GeoJSON documents, now in this second work students should add/change the actions (and, if necessary, the grammar) to produce a web page to visualize graphically the geometric figures defined in the GeoJSON document, over a geographical map - using the Google Maps API or equivalent.

The work should be done using the Lex and Yacc tools, and using actions that generate the necessary HTML, CSS and Javascript code. It won't be accepted works that simply pick the contents of the GeoJSON file and redirect it directly to a GeoJSON rendering API.

Some useful links:

<http://mikefowler.me/journal/2014/06/10/drawing-geojson-in-a-canvas>

<https://github.com/jrmerz/leaflet-canvas-geojson>

<https://github.com/TheGartrellGroup/geojson-canvas-leaflet>

The evaluation will take into account the quality of the material produced (regular expressions, grammar, actions, generated code, graphical presentation, including the contextualization of the features defined on the GeoJSON files into the geographical map), the coverage of the processor to validate and generate the output code of the different descriptive elements of GeoJSON; the report and presentation; but also the originality of the solution.

4 Rules for the practical work

- Work can be done individually or in groups of two elements;
- Until June 2, 2019, without any possibility of postponement, students should submit via VIRTUAL.IPB:
 - A commented listing of the program (Lex and Yacc);
 - The test files used to verify and validate the work;
 - A small report explaining the solution developed and the achieved results.
- It is also require the presentation and demonstration of the work. What will happen in the practical classes of June 4, 2019;

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