Compiladores - Second part of the Course Work

DCC-FCUP

October 2024

1 Work Groups

Groups are the same used for the first part of the coursework. Students that, for some serious reason, need to change group should contact directly the practical class teacher.

2 Deadlines

The work must be submitted by **14:30 of the 11th of December** 2024, in the activity to be made available for this purpose on Moodle, with demonstrations carried out in the practical classes of 12 and 16 of December of 2024.

3 Submission guidelines

Each group must deliver a **.zip file** with the whole source code, and a .pdf file with a brief README of the project, called **README.pdf**. The submitted file must be zipped as a .zip file (not another archive format). The file name must be:

COMP_TP2_Txx_Gyy.zip

where Txx_Gyy is the name of the group (example: COMP_TP2_T01_G02.zip).

4 Assignment description

1. Build a symbol table with type and any other semantic information you may need in the compilation proccess. See the corresponding theoretical class for symbol tables as a reference.

2. Implement an intermediate code generator for the same language, which returns a list of instructions of the three address code described in the theoretical classes.

3. Implement a code generator for MIPS which, given a list of three-address instructions, prints on a file its corresponding MIPS code. MIPS code should be tested using `https://github.com/dpetersanderson/MARS`.

Important note: this second part of the coursework will be tested with some Kotlin programs as input, thus, in some cases, you may have to change/complete the scanner and parser of the first part of your coursework.