Computer Science Engineering School



Software Engineering

Lab 04
Language Recognition with ANTLR

Francisco Ortín Soler



University of Oviedo

Objective

Implement a C-- language recognizer (parser) with ANTLR

Syntactic Specification

 Open the <u>description.txt</u> file to see a syntax description of C--

• Open input.txt to see a sample input file

Syntactic specification with ANTLR

Cmm.g4



Lexical and Syntactic specification (grammar)











CmmParser.java





Autonomous work

- 1. Work in the Java project of the previous lab
 - Rename the previous Main to LexicalMain
- 2. Extend the Cmm.g4 file to recognize the language
 - Step by step process using the ANTLR plugin
 - Start with expression and test all its productions with the plugin
 - Do the same with the remaining non-terminals (in order): statement, type, definition and program
 - Follow this process in order until you are done
- 3. (Only) when you are done,
 - Copy the Main.java given into your project
 - Use Main.java to test your parser
 - Pass input.txt and any other files to test it