



Webinar 3: Code Generation

In this week's webinars we will attend to code generation from a practical perspective, and general preparation for your exam which will take place next week:

Webinar session 1: practical aspects of code generation.

Webinar session 2: exam preparation covering the full 3 weeks of material.

Session 1 (19th October):

Download **calc-codegen.py** and **Assembly Cheat Sheet.pdf** from the Moodle page.



calc-codegen.py



Assembly Cheat Sheet.pdf

Follow the instructions given by the tutor in the live session. We will work on the following tasks, with time for Q&A between tasks.

Task 1: A little bit on assembly:

- (a) compiling c code and generating assembly.
- (b) writing assembly programs.

Task 2: Software tour (Python3 and Antlr4). The tutor will show you how to use Antlr4 with Python to complete the relevant code generation tasks.

Task 3: Discussion and analysis of Calc language and where to start, including head/body setup.

Task 4: Demonstration of how to implement a code generator for a Calc <expression>.

Task 5: Demonstration of how to implement a code generator for a Calc <statement>.

Task 6: Discussion of lab tasks and demonstrations as time allows. The tutor will instruct how to approach the lab tasks and demonstrate how to get started.

Session 2 (23rd October):

Follow the instructions given by the tutor in the live session. We will work on the following tasks, with time for Q&A between tasks.

Task 1: The tutor will discuss with you what to expect in the exam next week, w.r.t. the compilers part of the exam.

Task 2: The session will now open for Q&A on anything you want more information on: exam, compiler practicals, etc...