SI1001 Theory of Computation
Homework 3
Frama-C

Andrés Sicard-Ramírez

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1 Deadline

See the course homepage.

2 Assignment (95%)

(i) (80%) The C programming language has various primitive data types for representing integer numbers. In particular, the data type `short` represents short signed integers, the data type `int` represents basic signed integers and the data type `long` represents long signed integers.

For the data types `short` and `long` write a contract (specification) in ACSL for a function returning the addition of two arguments of the same data type.

(ii) (20%) To document (in English) your contracts. In particular, document your pre- and post-conditions.

3 Requirements (5%)

(i) The homework should be solved with other student taking the course.

(ii) Your contracts should be automatically verified by Frama-C using the options `-wp` and `-wp-rte`.

(iii) To add to the repository a `README.md` file (Markdown format) in English containing the following information:

- Your(s) full name(s).

- Versions used of operating system, compiler and Frama-C in your implementation.
- Any information (books, articles, videos, AIs, repositories, etc.) you did use for the homework.

(iv) Do not include unnecessary files or directories in the repository.

4 Clean code

Before submitting your code, which includes your `README.md` file, clean it up:

- Does not have long lines (at most 80 columns).
- Has an uniformly indentation (we recommended two characters).
- Has a consistent layout.
- Has good comments.
- Has no junk (unused code, commented code, unnecessary code).
- Has no overly complicated function definitions.
- Does not contain any repetitive code.
- Has no tabs.
- Has no unnecessary spaces at the end of a lines, or empty lines at the end of a file.
- Has spell-checked comments.

5 Delivery

I shall send the GitHub Education link to the final project via EAFIT Interactiva.

6 From the coordination

El control de versiones no es solamente un herramienta que facilitará la comunicación entre los miembros del grupo y la administración de los cambios al código. El control de versiones también ayudará al profesor a llevar un control sobre el desarrollo de la práctica. Se espera que las diferentes registros dentro del control de versiones sean cambios graduales. En caso contrario, se procederá a realizar un escrutinio con el objetivo de evitar fraudes.