CS&A: Lab Sessions

Exercises: MIPS

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1 Time Schedule

Exercises are made individually. Fill in all solutions to the exercises in the file `oefeningen.html`. **Include all .asm files that contain your MIPS programs.**

Put all your files in a tgz archive, as explained on the course's website, and submit your solution to the exercises on Blackboard.

- Deadline: **November, 29 2010, 23u55**

2 Exercises

Write a MIPS program for the MARS simulator for each of the following exercises. As always, document your solution well (use #).

1. Read an integer `n` (use `syscall`), and print
   `This is my n-th MIPS-program.`
   on the screen.

2. Convert the Oberon code below to a MIPS program.

```
i := 0;
WHILE (i <= 10) DO
   INC(i);
   OutExt.Int(i, 0);
   OutExt.Ln;
END;
```

3. Write a program that reads an integer `n` and prints a piramid of `n` rows, with on each row a sequence of integers starting with 1. With `n = 5` the output should be:

```
        1
      1 2 3
    1 2 3 4 5
  1 2 3 4 5 6 7
1 2 3 4 5 6 7 8 9
```

4. Write a program that reads an integer `n` and prints the Fibonacci numbers from F_0 to F_n. The Fibonacci numbers are defined as follows:
   $F_0 = 0$
   $F_1 = 1$
   $F_i = F_{i-2} + F_{i-1}$ voor $i > 1$