Arquitetura de Computadores 2
Important information about practical test 2

DETPIC32 board

To allow the functional verification of the programs, a DETPIC32 board will be available during the test (the same as the one used in practical classes).

LED	LED7 … LED0	RE7 … RE0
Switches	DS4 … DS1	RB3 … RB0
Display segments	Seg G … Seg A	RB14 … RB8
Display control	Most significant display, Least significant display	RD6, RD5
Test points	OC5 … OC1	RD4 … RD0
Analog input (0 - 3.3V)	Potentiometer (R30)	RB4
Communications	RS-232	UART2
Clock frequency	Core Timer, PBCLK	20MHz

Test setup

1. The practical test focuses on all subjects taught; programming is limited to the C language only.

2. The test will be done during the practical class, in an individual manner, and its duration will be 75 minutes. The distribution per session is available in the AC2 moodle page, in the "placard" section.

3. The test is carried out on the classroom PCs. The login and password of the test session will be revealed at the begin of the test.

4. In the Desktop of the computer, you will find the "prova" directory (Desktop/prova). Inside this directory you will find all the necessary files for carrying out the test. **It is mandatory to answer the questions using those files**.

5. File names and file locations cannot be changed. It is not allowed to delete any file, especially outside the working directory (Desktop/prova).

6. It is mandatory to fill in the name and the student number in the header of the files, in the place indicated therein.

7. At the end of the test, the editor(s) should be closed and a "logout" must be performed - the computer must not be turned off (**see the "logout" sequence on the next page**).

Reference material

1. The Microchip manuals, the MIPS instruction table (which includes the list of System Calls) and the introduction to practical guides 3 to 11 will be available as reference information.

2. For programming with the A/D converter, the configuration sequence, as shown on page 4 of practical guide n.º 6, will be provided. For using the displays, the 7-segment code table will be also provided.

Test evaluation

1. During the correction process, all programs will be compiled. The detection of syntax errors implies the attribution of a penalty on the grade given to the exercise. The detection of warning errors will also be evaluated.

2. For programs that do not have syntax errors, the evaluation of their operation (on a DETPIC32 board) is part of the correction process, during which compliance with the specifications of each exercise will be verified.

"logout" sequence