



## V20 Computer Programming

### 1. Final Task Assignment

The task consists in designing the Web software for managing all of the registrations to an international competition like Abilympics.

- Using a database that will be provided on the day of the competition (structure, tables and relations will be pre-completed), contestants will have to:
    - Develop a registrations management interface (contestants and judges).
    - Develop a tasks management interface capable of affecting all of their registered participants (contestants and judges).
    - Develop an evaluations management interface capable of allocating their scores to each participant in the skill category they competed in.
  - All of the details of functionalities will be revealed on the day of the competition. The following programs will be installed on every computer:
    - For the Web server part of the task, contestants may choose to use either WAMP or Easy PHP.
    - For the text editing part of the task, contestants may choose to use either Notepad++ or Sublime Text 3.
  - Contestants may use the following technologies:
    - Framework: CodeIgniter in PHP language, available for download here: <http://www.codeigniter.com/>
    - Framework: AngularJS in JavaScript language, available for download here: <https://angularjs.org/>
- These two Framework tools must be used in conjunction to complete the programming.
- For the graphic aspect of the interfaces, contestants may use Framework CSS Bootstrap, available for download here: <http://getbootstrap.com/getting-started/>

## **2. Allocated time: 6h00**

6 hours of competition

Day 1 (March 25<sup>th</sup>): 3 hours and 30 minutes.

Day 2 (March 26<sup>th</sup>): 2 hours and 30 minutes of competition.

## **3. Requirements**

- All computers will be equipped with AZERTY keyboards. However, contestants may install their own keyboard before the beginning of the competition.
- The jury will collect all electronic means of communication contestants may have at the beginning of each module. They will be returned to their owners once each module is finished.
- Contestants will have a limited access to the Internet and may not use equipment or software other than that provided by the organization. Any contestant caught cheating, talking to someone from the public or using a communication device will suffer a penalty of 5 points for the first transgression. A second transgression will lead to an exclusion from the contest.
- Contestants will save their work on an USB flash drive and hand it to the jury for evaluation.

## **4. Procedure**

**Day -1 (March 24<sup>th</sup>):** On the day before the competition, contestants will be welcomed by members of the jury. Contestants will draw lots to be assigned to a work station, where they may install their personal equipment (keyboard, mouse...). The jury will not take account of any problem coming from the contestants' personal equipment.

**Day 1 (March 25<sup>th</sup>):** Contestants will have 3 hours and 30 minutes to work on the task.

**Day 2 (March 26<sup>th</sup>):** Contestants will have 2 hours and 30 minutes to complete the task.

N°	5. Evaluation criteria	Scoring scale
01	Respect of the coding standards of the CodeIgniter framework	5
02	Respect of the coding standards of the AngularJS framework	5
03	Optimization of the coding (limited number of lines)	5
04	Optimization of the coding (no redundancy in the code)	5
05	Quality of the coding, pertinence in the choice of names for variables and functions	2.5
06	Readability of the coding (indentation)	2.5
07	The participant registration interface functions	10
08	The participant registration interface is user-friendly	6
09	The registration interface allows for input control	4
10	The skill contests management interface functions	10
11	The skill contest management interface is user-friendly	6
12	The skill contests management interface allows for input control	4
13	The contest notation management interface functions	10
14	The contest notation management interface is user-friendly	6
15	The contest notation management interface allows for input control	4
16	General aesthetic aspect of the site	15
<b>TOTAL POINTS</b>		<b>100</b>



**Abi wishes you a good competition!**