

TU857/1 Programming Lab Test #2

Date: Thursday, April 11th, 2024 (09.05am – 10.55am)

Requirements:

The 33rd Summer Olympic Games will be held in Paris, France between July 26th and August 11th, 2024.

Almost all athletes that have qualified to compete at these games are now known and their records have been stored in the official games software system and available to view online.

A popular event in the games is expected to be the 100m sprint. However, due to late qualifying competitions for this event at the Olympic games, the exact number and details of the athletes competing in the 100m sprint event is not yet known.

As the official developer of the 33rd Summer Olympic Games, write a C program to implement the following:

1. Using appropriate data types, develop a mechanism to store the following information for each athlete's record:
 - First name
 - Surname
 - Nationality
 - Date of Birth (format: dd/mm/yyyy)
 - Height
 - Weight
 - Event
2. Due to the unknown final number of athletes that have qualified to compete in the 100m sprint event, the user must enter this final number only when the program runs.
(Note: for the purpose of this assessment only, you can assume the maximum number entered will not exceed 2).
3. Using a function only, enter all athlete record details for the final number of athletes that have qualified to participate in the 100m sprint event at these Olympic Games.
4. Assuming the current world record holder for the 100m sprint is an Irish man whose name is Paddy Jim O'Brien, use a function only to confirm whether he is a participant in this event at these games.

Submission details:

1. Submission file name: **labtest2.c**
2. Submit your labtest2.c file on Brightspace. This must be submitted on or before **10.55am today in this lab session.**

NB - This is an individual lab test and **NOT** a group one. Do your own work and do not plagiarise your code. Anti-plagiarism software will be used to randomly check submissions. Any submitted code suspected of having been plagiarised will be brought to the attention of the module examiners for specialised checks under the TU Dublin general assessment regulations.

Marking scheme (Rubric):

Table 1 shows the marks allocated for this lab test.

Functionality Program meets requirements. **Code should meet the <u>highest</u> professional standards	Step 1	10%	
	Step 2	5%	
	Step 3	40%	
	Step 4	20%	
		Sub Total:	75%
Commenting	Program Description, Author, Date	5%	
	Good comments throughout code body	10%	
Indentation and Spacing	Correct <u>and</u> consistent indentation and spacing throughout code body	10%	
		Sub Total:	25%

Table 1: Marking scheme (Rubric)