

Università degli Studi di Padova

Dipartimento di Fisica e Astronomia “Galileo Galilei”

Corso di Laurea in Physics of Data

**QUANTUM INFORMATION AND
COMPUTATION: WEEK 1 EXERCISES**

OF

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Exercise 1

The first exercise is a program that write in terminal "Hello world".

Exercise 2

In the second exercise, after writing the first version of the program using 2 bytes to represent integers (int*2), the compiler can recognize that there is an "out of range" error due to the numbers used and it does not compile. Newer compiler versions suggest the following: *Error: Arithmetic overflow converting INTEGER(4) to INTEGER(2) at (1). This check can be disabled with the option '-fno-range-check'.*

Using that flag the compiler act without warnings but the executable program gives a *nonsense* result (as expected).

In the version that uses 4 bytes to represent integers (int*4) there are no problems (with the used numbers).

Exercise 3