



TP2: Interação e Concorrência

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Each group of students has a number assigned, N . Now, you have to use a quantum algorithm to find s

$$s = N \pmod{8}$$

in an unsorted list.

Implement the correct algorithm in a Jupyter Notebook file. Each work should contain (and will be evaluated on) the following steps:

1. Division of the algorithm into sections; Utilisation of the state vector simulator to explain each step (special attention to the oracle);
2. Application of noise simulator to predict the best optimisation;
3. Execution in an IBM Q backend.
4. Mitigation of Error with Ignis.

Use the practical classes as guides. An implementation that goes beyond the classes activities will result in extra points.

Deliver your work in Notebook Jupyter and pdf.

On 9 June, we will discuss your project.