Computer Architecture course,

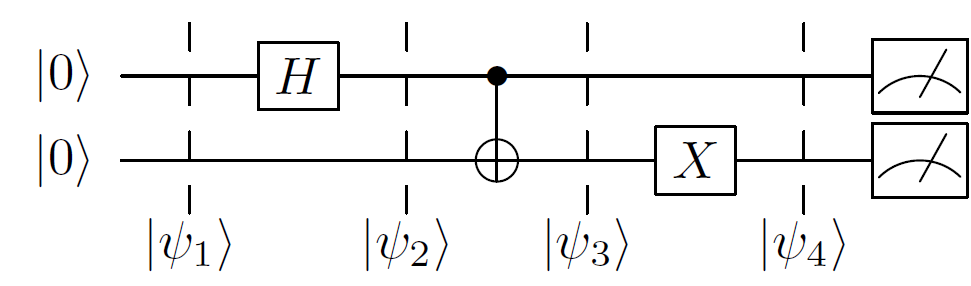
Quantum Computing part,

a.y. 2021/2022

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**Exercise 1**

Given the following quantum circuit, compute all the intermediate 2-qubit states and the final measurement probabilities (the measurement is along the standard basis ).



The student can **optionally** implement the above circuit using the Qiskit platform and compare the results obtained theoretically with those estimated by the *qasm\_simulator*.

Recall that: