Quantum computing is a branch of physics and computing that makes use of quantum mechanical phenomena to carry out tasks. – Reference : Information leaflet on Quantum Computing published by ICHEC (Irish Centre for High End Computing)

Qubits can have a value of either 0, 1 or any value in between. – Reference : Information leaflet on Quantum Computing published by ICHEC (Irish Centre for High End Computing)

**Programming a quantum computer**

Reference - Practical Quantum Computing for Developers: Programming Quantum Rigs in the Cloud using Python, Quantum Assembly and IBM Q Experience By Vladimir Silva Published by Apress 2018

QISKIT SDK for Quantum Computing in Python

* **IBM Q Experience**

Cloud based quantum computing platform

Can program an actual quantum processor and or use a simulator

Mainly for experimental testing

Create quantum circuits

Representation for ground state of qubit |0>

It’s a visual editor that provides the quantum gates as blocks

Can chose from a collection of quantum processors

* QASM quantum assembly language
* **Quantum Supremacy**

**Speed of a quantum computer**

**Impact of Quantum Computing in Computer Science**