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In [2]: import numpy as np
from qiskit import(
    QuantumCircuit,
    execute,
    Aer)
from qiskit.visualization import plot_histogram

# Use Aer's qasm_simulator
simulator = Aer.get_backend('qasm_simulator')

# Create a Quantum Circuit acting on the q register
circuit = QuantumCircuit(2, 2)

# Add a H gate on qubit 0
circuit.h(0)

# Add a CX (CNOT) gate on control qubit 0 and target qubit 1
circuit.cx(0, 1)

# Map the quantum measurement to the classical bits
circuit.measure([0,1], [0,1])

# Execute the circuit on the qasm simulator
job = execute(circuit, simulator, shots=1000)

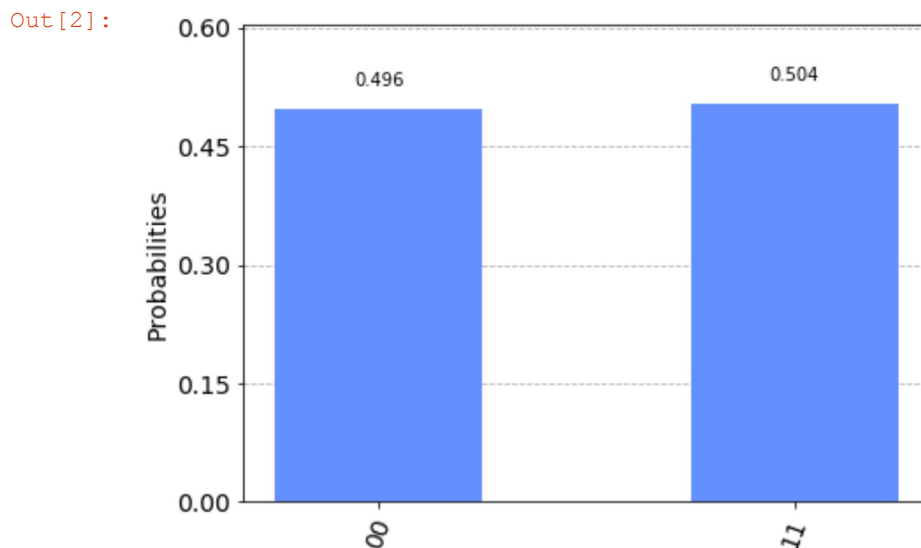
# Grab results from the job
result = job.result()

# Returns counts
counts = result.get_counts(circuit)
print("\nTotal count for 00 and 11 are:",counts)

# Draw the circuit
#circuit.draw()

plot_histogram(counts)
#plt.savefig('hw1.png')
```

Total count for 00 and 11 are: {'11': 504, '00': 496}



In [ ]: