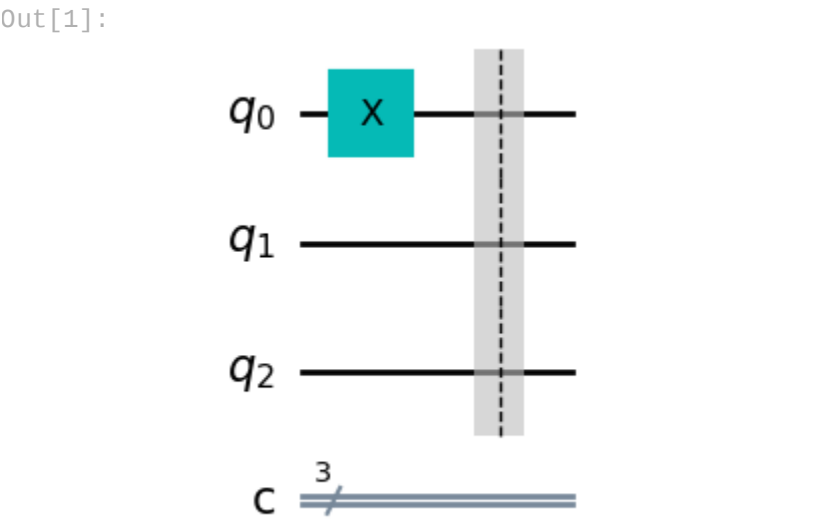


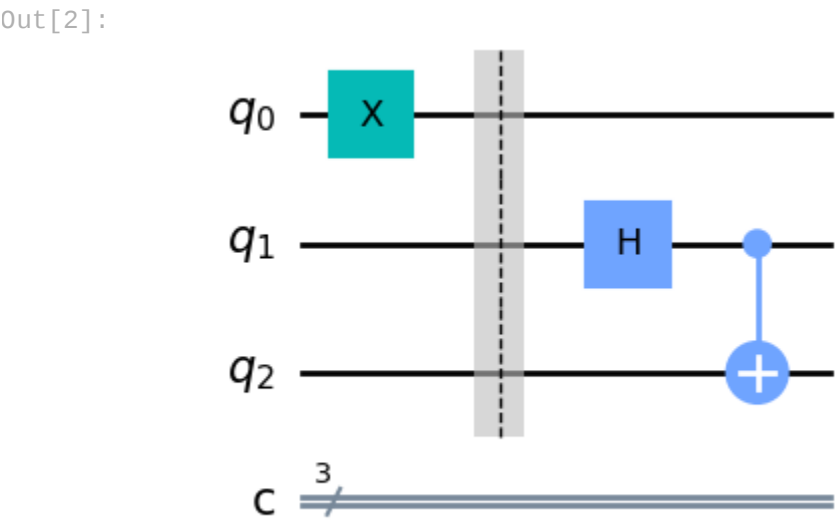
```
In [1]: from qiskit import *
%matplotlib inline

#Quantum Circuit with 3 qubits and with 3 Classical Bits
circuit = QuantumCircuit(3,3) #[0 ,0] -> qubits (initial state)

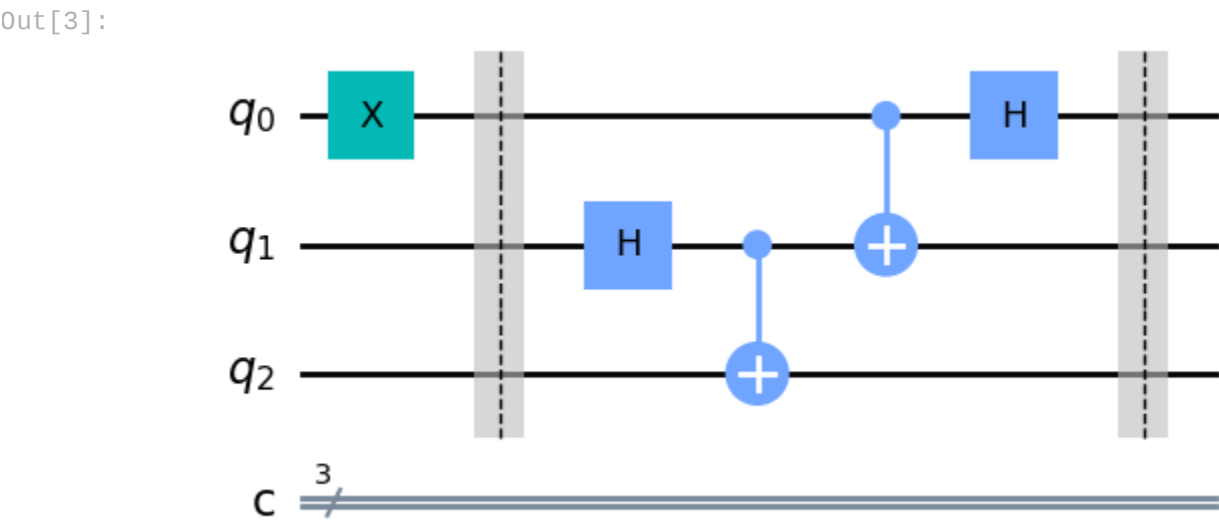
#this is gonna make the first qubit !0 (not of 0). So [1 , 0]
circuit.x(0)
circuit.barrier()
circuit.draw(output='mpl')
```



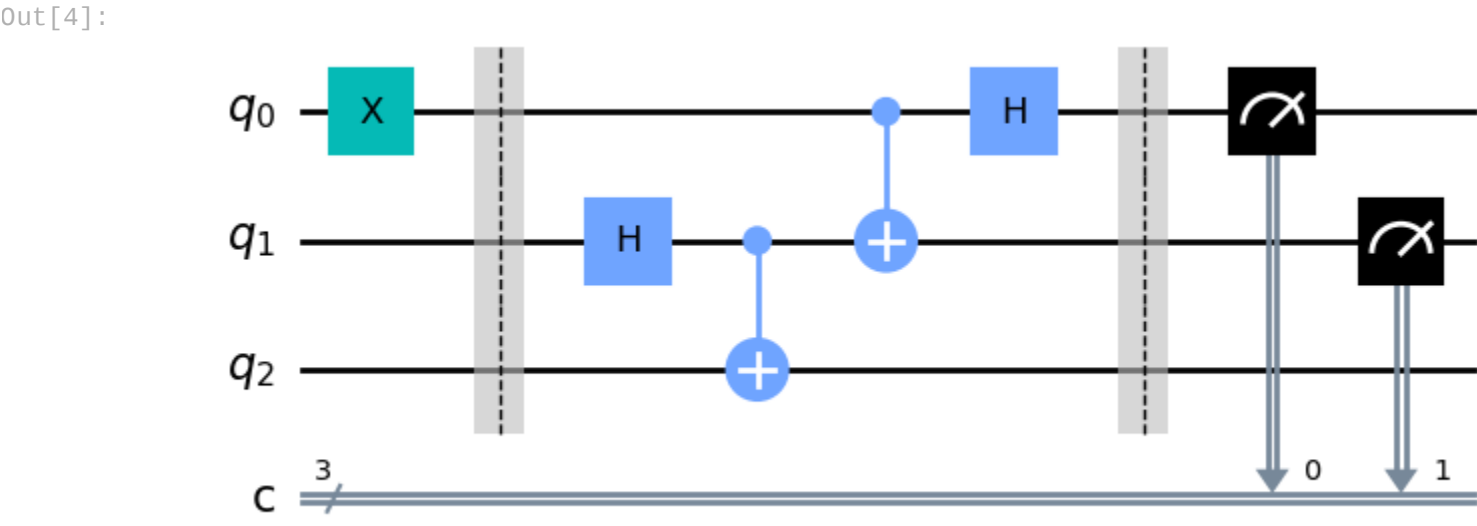
```
In [2]: circuit.h(1)
circuit.cx(1,2)
circuit.draw(output='mpl')
```



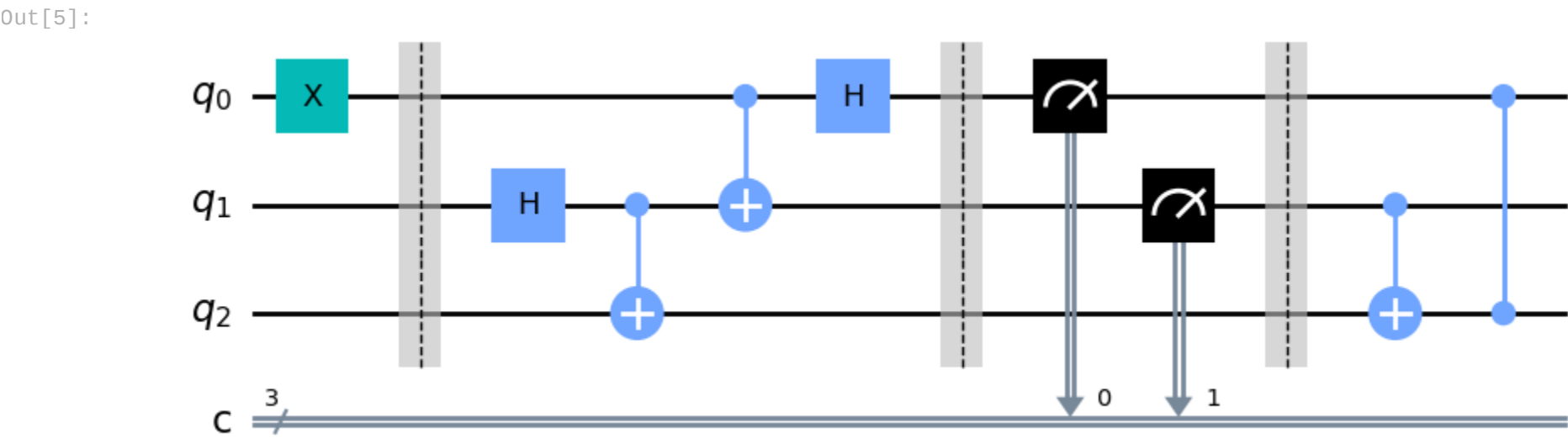
```
In [3]: circuit.cx(0,1)
circuit.h(0)
circuit.barrier()
circuit.draw(output='mpl')
```



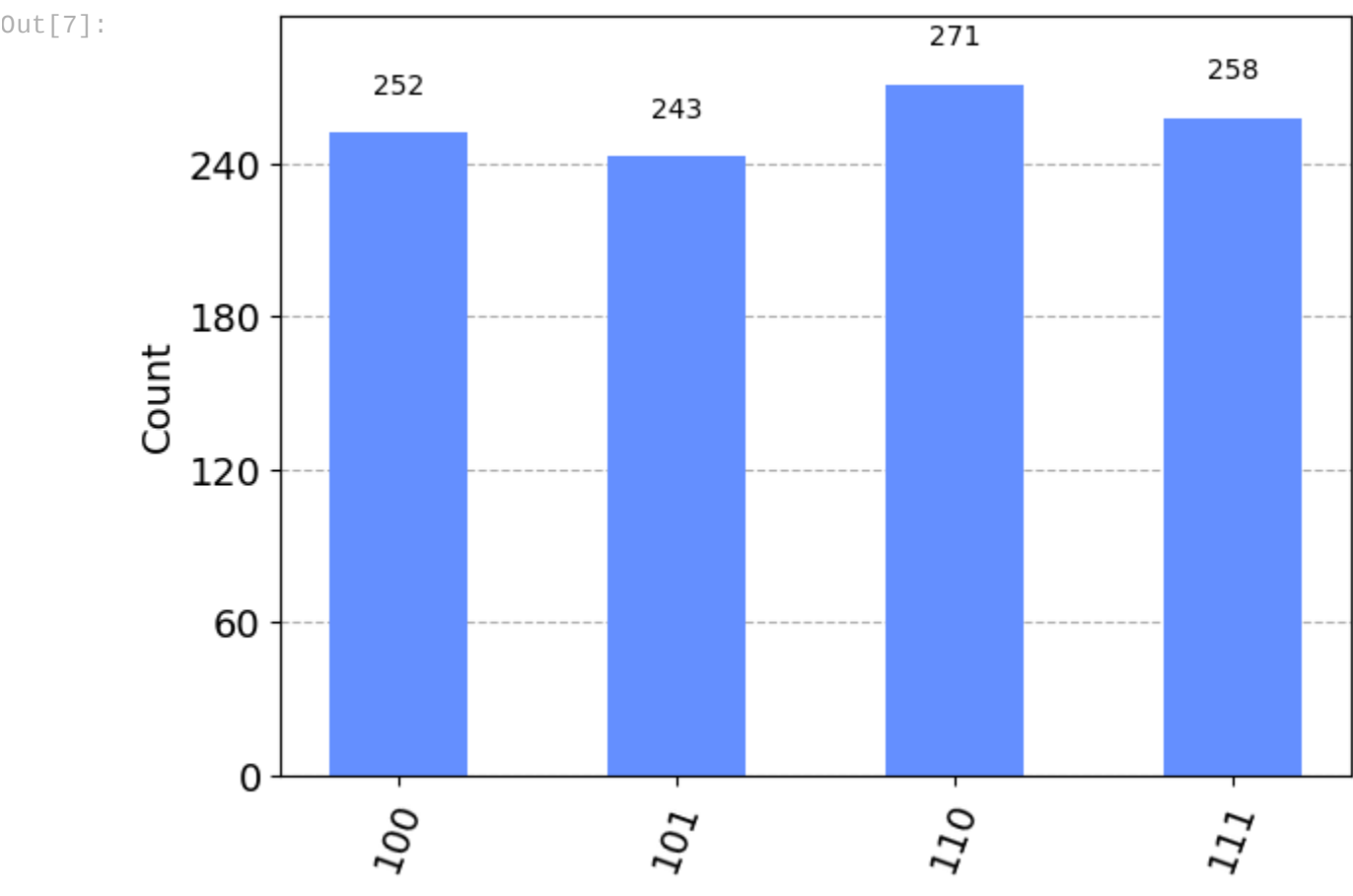
```
In [4]: circuit.measure([0,1],[0,1])
circuit.draw(output='mpl')
```



```
In [5]: circuit.barrier()
circuit.cx(1,2)
circuit.cz(0,2)
circuit.draw(output='mpl')
```



```
In [7]: circuit.measure(2,2)
simulator = Aer.get_backend('qasm_simulator')
result = execute(circuit, backend = simulator,shots=1024).result()
counts=result.get_counts()
from qiskit.tools.visualization import plot_histogram
plot_histogram(counts)
```



```
In [8]: print(counts)

{'101': 243, '110': 271, '111': 258, '100': 252}
```

```
In [ ]:
```