Youtube link: <https://youtu.be/vi8ib0s3CEQ>

Github link: <https://github.com/Minnowfeather/cs3650final>

# Printout  
from qiskit import \*

%matplotlib inline

from qiskit.tools.visualization import plot\_histogram

secretnumber = '101111001'

numsize = len(secretnumber)

circuit = QuantumCircuit(numsize+1, numsize)

circuit.h(range(numsize))

circuit.x(numsize)

circuit.h(numsize)

circuit.barrier()

for index, value in enumerate(reversed(secretnumber)):

    if value == '1':

            circuit.cx(index, len(secretnumber))

circuit.barrier()

circuit.h(range(numsize))

circuit.barrier()

circuit.measure(range(numsize), range(numsize))

circuit.draw(output='mpl')

simulator = Aer.get\_backend('qasm\_simulator')

result = execute(circuit, backend=simulator, shots=1).result()

counts = result.get\_counts()

print(counts)