qai-practical-assignment-1

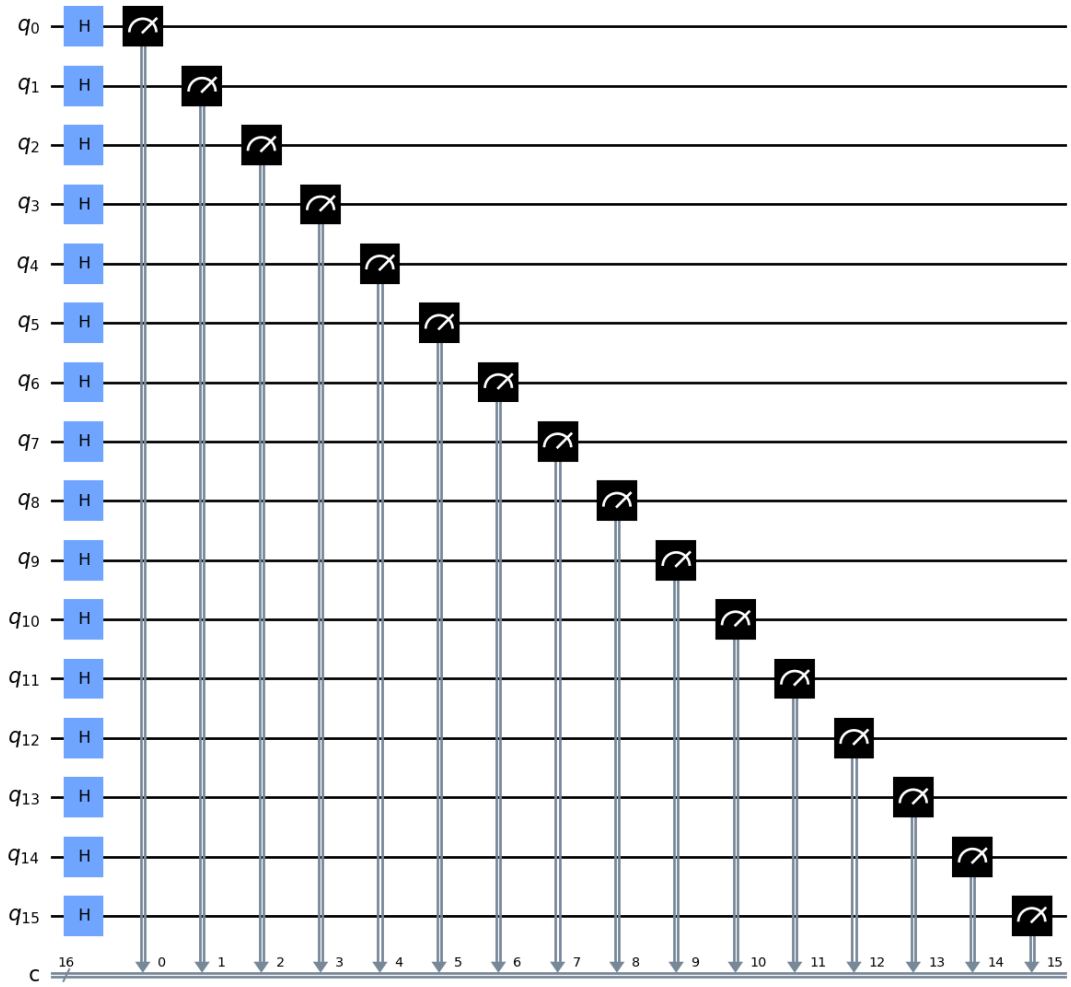
August 22, 2023

[15]:
```
from qiskit import QuantumRegister, ClassicalRegister
from qiskit import QuantumCircuit, execute, BasicAer

# Bulding Quantum Circuit

q = QuantumRegister(16, 'q')
c = ClassicalRegister(16, 'c')
circuit = QuantumCircuit(q, c)
circuit.h(q)
circuit.draw()
circuit.measure(q, c)
circuit.draw()

#Execute Quantum Circuit

backend = BasicAer.get_backend('qasm_simulator')
job = execute(circuit, backend, shots=1)
print("Executing Job.....")
result = job.result()
counts = result.get_counts(circuit)
print("Result : ", counts)
```

```
Executing Job…
Result :  {'1101110011111100': 1}
```

[16]:
```
circuit.draw()
```

[16]:


q0
q1
q2
q3
q4
q5
q6
q7
q8
q9
q10
q11
q12
q13
q14
q15
H
c
16
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
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