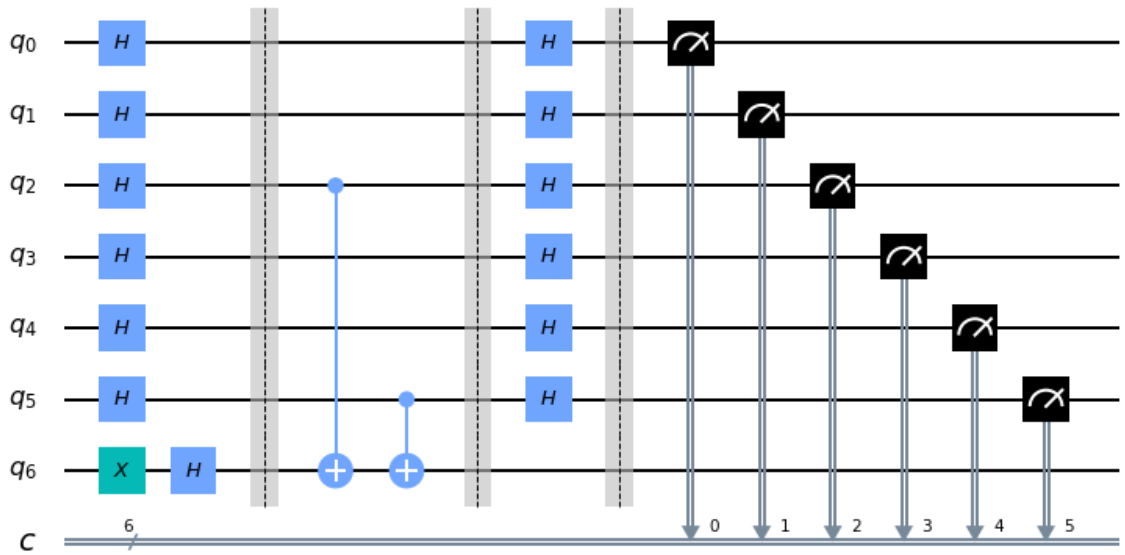
In [1]:
```
from qiskit import *
%matplotlib inline
from qiskit.tools.visualization import plot_histogram
```

In [2]:
```
secretnum = input()
```

```
100100
```

In [3]:
```
BVC = QuantumCircuit(len(secretnum)+1,len(secretnum))
BVC.h(range(len(secretnum)))
BVC.x(len(secretnum))
BVC.h(len(secretnum))

BVC.barrier()

for i, t in enumerate(reversed(secretnum)):
    if t=='1':
        BVC.cx(i,len(secretnum))
BVC.barrier()

BVC.h(range(len(secretnum)))

BVC.barrier()

BVC.measure(range(len(secretnum)),range(len(secretnum)))

BVC.draw(output='mpl')
```

Out[3]:



In [7]:
```
simulator = Aer.get_backend('qasm_simulator')
result = execute(BVC, backend=simulator,shots=1).result()
counts=result.get_counts()
print(counts)
```

```
{'100100': 1}
```

In [ ]: