

This is the $1+1+1=3$ adder

Making the necessary imports

```
#import qiskit tools
import qiskit
from qiskit import QuantumCircuit, ClassicalRegister, QuantumRegister, transpile, Aer, IBMQ
from qiskit.tools.visualization import circuit_drawer
from qiskit.tools.monitor import job_monitor, backend_monitor, backend_overview
from qiskit.providers.aer import noise

#import python stuff
import matplotlib.pyplot as plt
from qiskit.visualization import plot_histogram
import numpy as np
import time
```

Loading the account

```
#IBMQ.delete_account()
IBMQ.save_account('7d8a2b3e50702a93549aef58c63889439f2097b22aa826ddd3288b29ec6e0c39323697aec7a13cc6ebca')
#IBMQ.enable_account(my_api)
IBMQ.load_account()
provider = IBMQ.get_provider('ibm-q')
quito = provider.get_backend('ibmq_quito')
```

Making the adder circuit

```
qreg_q = QuantumRegister(5, 'q')
creg_c = ClassicalRegister(5, 'c')
circuit = QuantumCircuit(qreg_q, creg_c)

circuit.reset(qreg_q[0])
circuit.reset(qreg_q[1])
circuit.reset(qreg_q[2])
circuit.cx(qreg_q[0], qreg_q[3])
circuit.cx(qreg_q[1], qreg_q[3])
circuit.cx(qreg_q[2], qreg_q[3])
circuit.ccx(qreg_q[0], qreg_q[1], qreg_q[4])
circuit.ccx(qreg_q[2], qreg_q[0], qreg_q[4])
circuit.ccx(qreg_q[1], qreg_q[2], qreg_q[4])
circuit.measure(qreg_q[3], creg_c[3])
circuit.measure(qreg_q[4], creg_c[4])

<qiskit.circuit.instructionset.InstructionSet at 0x7efef265dd00>
```

Visualizing the adder circuit

```
circuit.draw()
```

Fetching the counts

```
tic = time.time()
transpiled_circuits = transpile(circuit, quito)
job_real = quito.run(transpiled_circuits, shots=8192)
```

```
job_monitor(job_real)
result_real = job_real.result()
toc = time.time()

Job Status: job has successfully run
```

Making a histogram

```
counts = result_real.get_counts()
plot_histogram(counts)
```

