

```
#!/usr/bin/env python
# coding: utf-8
```

```
# In[1]:
```

```
pip install qiskit
```

```
# In[2]:
```

```
from qiskit import QuantumCircuit, transpile, Aer, execute
from qiskit.visualization import plot_bloch_multivector
qc = QuantumCircuit(1)
qc.h(0)
simulator = Aer.get_backend('statevector_simulator')
job = execute(qc, simulator)
result = job.result()
statevector = result.get_statevector()
print("First superposition:")
print(statevector)
plot_bloch_multivector(statevector)
qc = QuantumCircuit(1)
qc.h(0)
qc.y(0)
job = execute(qc, simulator)
result = job.result()
statevector = result.get_statevector()
print("\nSecond superposition:")
print(statevector)
plot_bloch_multivector(statevector)
qc = QuantumCircuit(1)
qc.h(0)
qc.z(0)
job = execute(qc, simulator)
result = job.result()
statevector = result.get_statevector()
print("\nThird superposition:")
print(statevector)
plot_bloch_multivector(statevector)
```

```
# In[ ]:
```

```
# In[ ]:
```