w Save Clear Delete OpenQASM Help

ıtitled Experiment

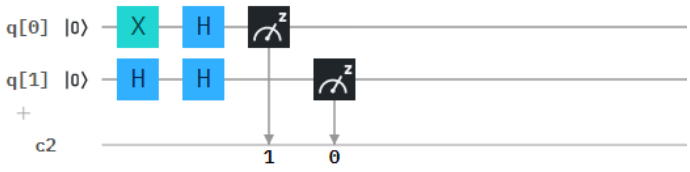
Circuit editor

```
1  OPENQASM 2.0;
2  include "qelib1.inc";
3
4  qreg q[2];
5  creg c[2];
6
7  x q[0];
8  h q[1];
9  h q[0];
10 h q[1];
11 measure q[0] -> c[1];
12 measure q[1] -> c[0];
```

Circuit composer

Gates

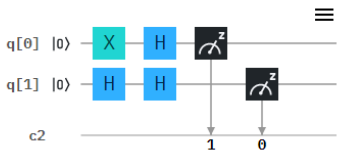
H S S† X Y Z ID U1 cH cRz



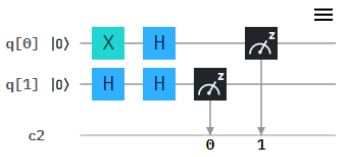
Circuit diagram

Diagram OpenQasm

Original circuit

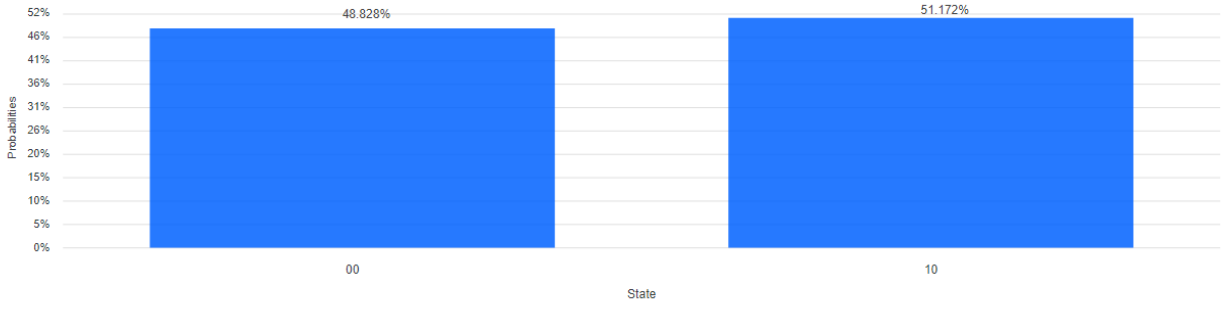


Transpiled circuit



Result

Histogram



```
def tensorVector(vector1,vector2):
    fin=[]
    for x in range(len(vector1)):
        tempo=[]
        for y in range(len(vector2)):
            tempo.append(multi(vector1[x],vector2[y]))
        fin.append(tempo)
    return fin

def tensorMatrices(mat1,mat2):
    fin=[]
    for i in range(len(mat1)):
        for j in range(len(mat2)):
             fin.append(tensorVector(mat1[i],mat2[j]))
    return fin
escalar=1/2**(1/2)
matriz=[[(1,0),(1,0)],[(1,0),(-1,0)]]
x=[[(0,0),(1,0)],[(1,0),(0,0)]]
H=multiplicacion_matriz_Escalar(matriz,escalar)
print("HH producto tensor")
M2=tensorMatrices(H,H)
print(M2)
print("H Tensor H")
M1=tensorMatrices(H,H)
multiMatrices=multiMatriz(M2,M1)
respuesta=multiMatriz(multiMatrices,x)
print(respuesta)
```

File Edit Shell Debug Options Window Help

```
Python 3.7.4 (tags/v3.7.4:e09359112e, Jul  8 2019, 19:29:22) [MSC v.1916 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
== RESTART: C:\Users\ASUS\Documents\CNYT\Calculadora complex\calculator.py ==
[[[0.7071067811865475, 0.0], [0.0, 0.0]], [0.0, 0.0], [0.0, 0.0]] [[0.0, 0.0], [0.0, 0.0]]
>>>
```