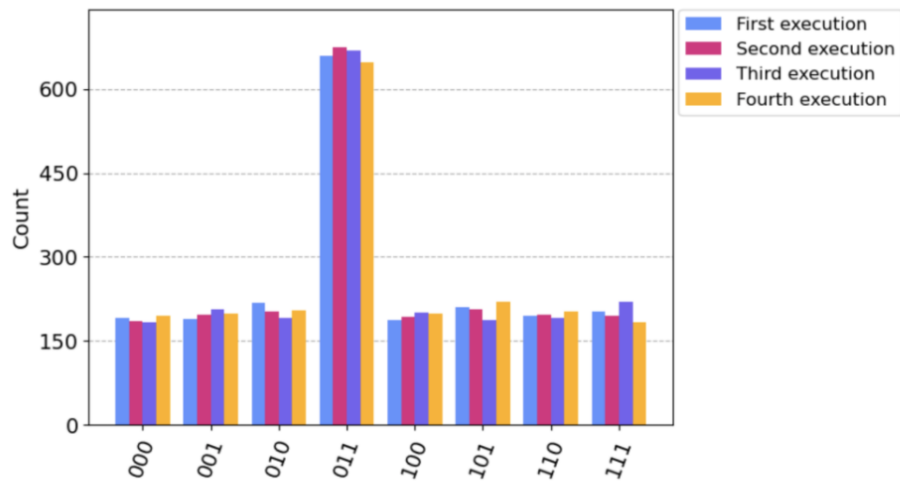
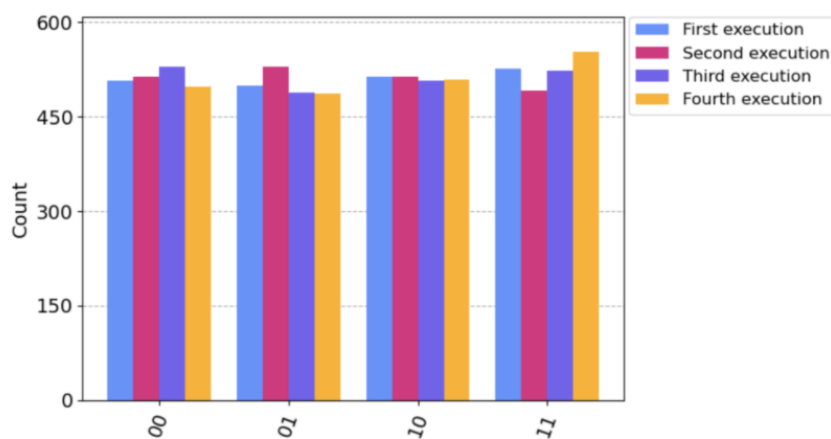


GROVER IN QUISKIT HISTOGRAM ANALYSIS

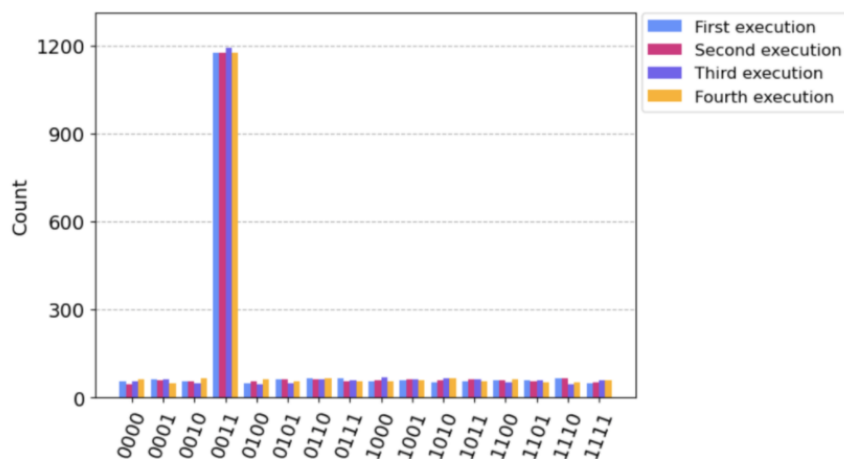


3 qubits. 2048 shots. 4 iterations.

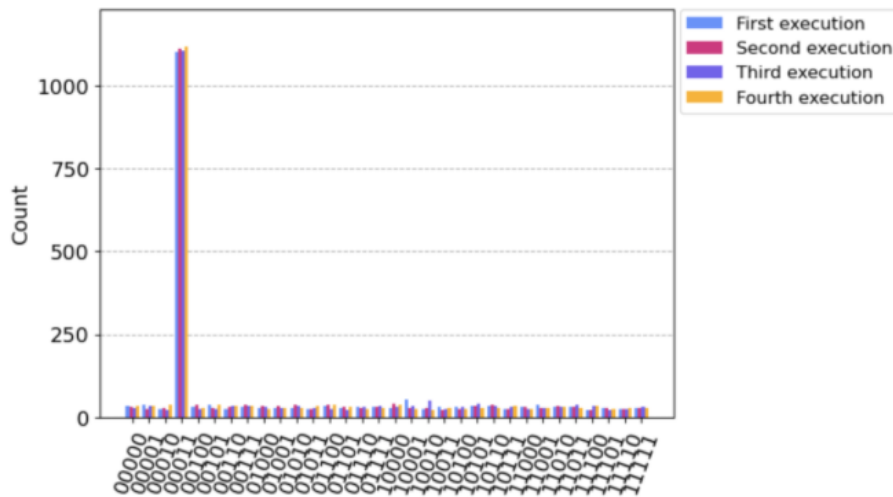
- Increasing/reducing number of qubits:



2 qubits. 2048 shots. 4 iterations.



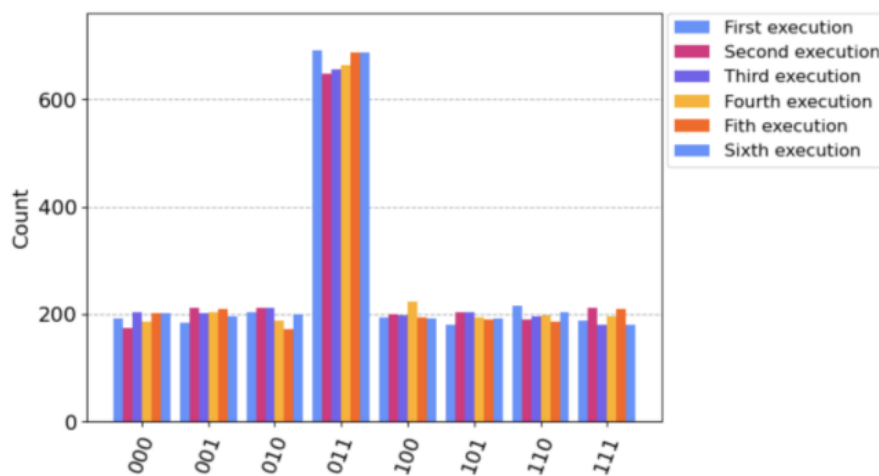
4 qubits. 2048 shots. 4 iterations.



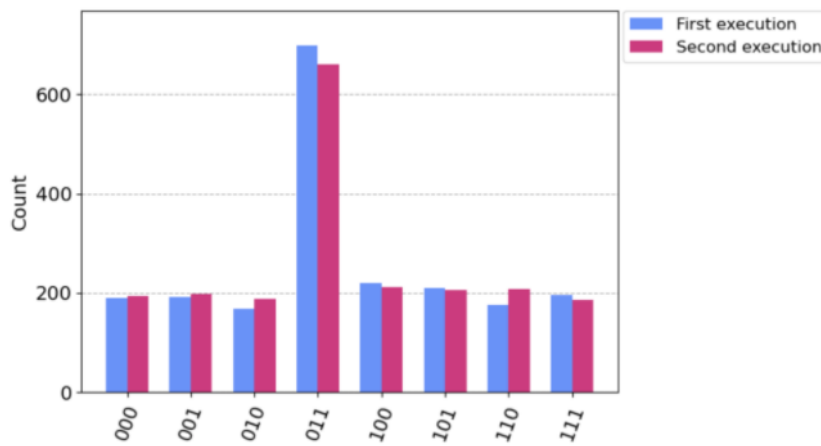
5 qubits. 2048 shots. 4 iterations.

Conclusion: Programme seems to not work until the number of qubits is at least 3, however, when we increase the number of qubits, the programme works better the bigger the number of qubits.

- Increasing/reducing number of iterations:



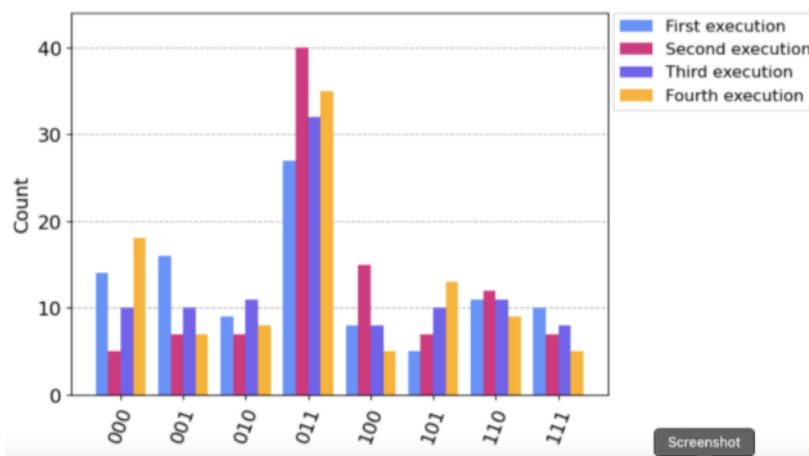
3 qubits. 2048 shots. 6 iterations.



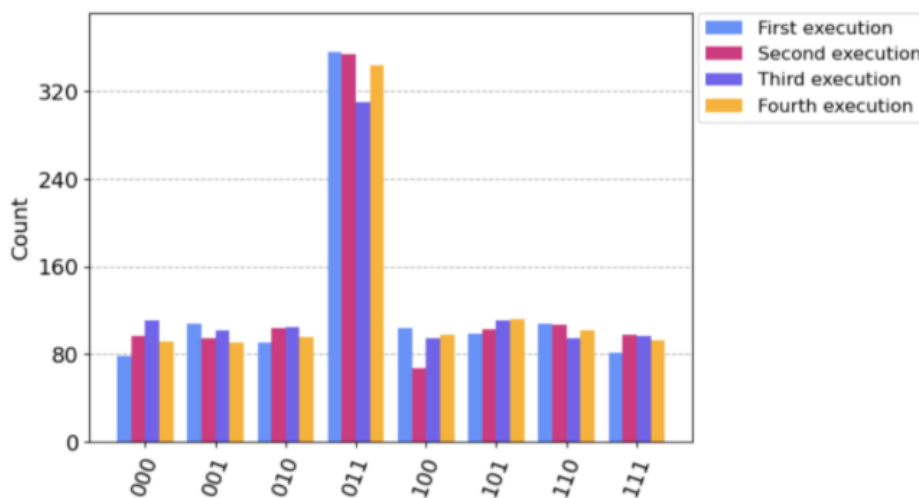
3 qubits. 2048 shots. 2 iterations.

Conclusion: The programme is not affected by the number of iterations. However, iterating more times shows better that the programme works properly.

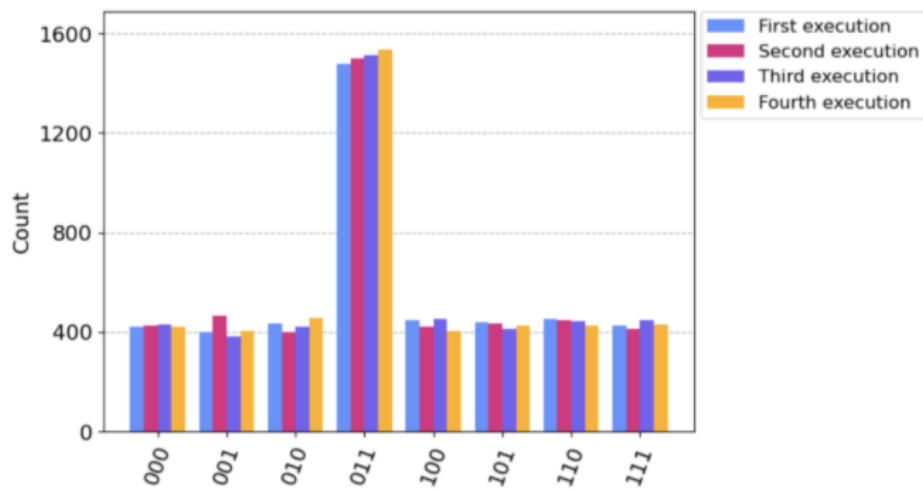
- Increasing/reducing number of shots of each iteration:



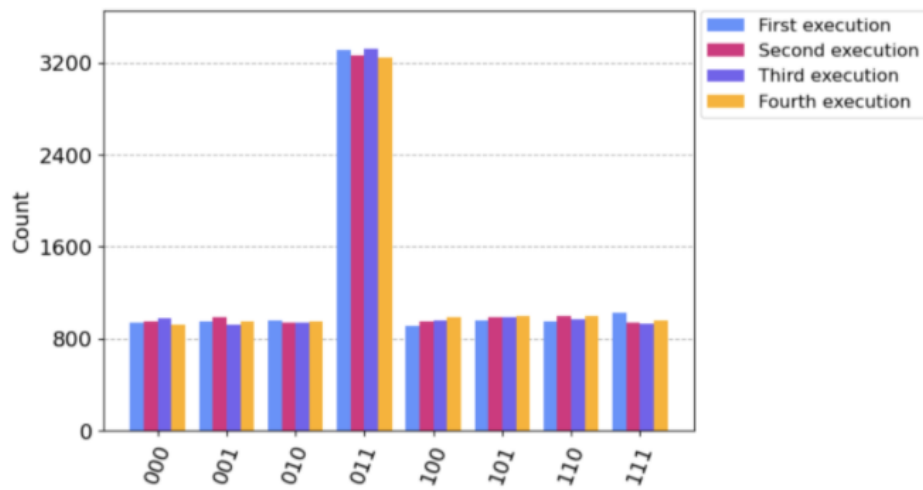
3 qubits. 100 shots. 4 iterations.



3 qubits. 1024 shots. 4 iterations.



3 qubits. 4500 shots. 4 iterations.



3 qubits. 10000 shots. 4 iterations.

Conclusion: Increasing number of shots stabilizes the programme.