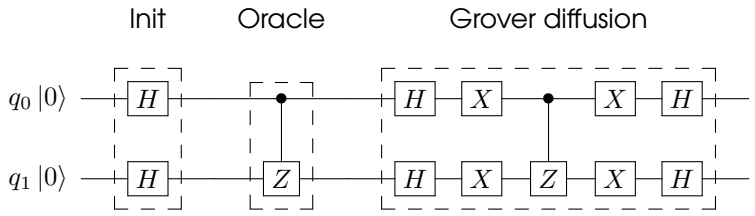
Capstone project

The last circuit we implemented in Qiskit was Grover's algorithm for the solution $|11\rangle$. For the capstone



project you will design and implement Grover's algorithm for 4 qubits, which is equivalent to a 16 state search space. You will implement this in Qiskit. The solution for the 4 qubit circuit is $|0010\rangle$.

Submission details

What to submit: A single .zip file of your code. This is because email clients in general do not accept .py files. Once you finish writing your code in a .py file, compress it to a zip file.
How to start: Your circuit should be called `grover_circ`, so your first line after the imports should be

```
from qiskit import QuantumCircuit

grover_circ = QuantumCircuit(4)
```

Where to submit: *assignment_capstone@qulearnlabs.com*
Submission email: Please follow the submission email guidelines to ensure your work is graded properly:

1. Email subject: "FULL_NAME:CAPSTONE_SUBMISSION_NUMBER" without the quotes.
2. Send the email with the email ID you used to register for the course.
3. Don't forget to attach the .zip file with your code.

For resubmission, please send another email with the submission number incremented, for example the second submission for John Smith would have the subject JOHN_SMITH:CAPSTONE_2. Your latest submission is graded.