```
#include <cudaq.h>
__qpu__ void kernel(int qubit_count) {
  cudaq::qvector qubits(qubit_count);
  h(qubits[0]);
  h(qubits[1]);
  h(qubits[0]);
  for (auto i = 1; i < qubit_count; ++i) {
    cx(qubits[i-1], qubits[i]);
  }
  mz(qubits);
}
int main() {
  int qubit_count = 2;
  auto result = cudaq::sample(kernel,2);
}
```