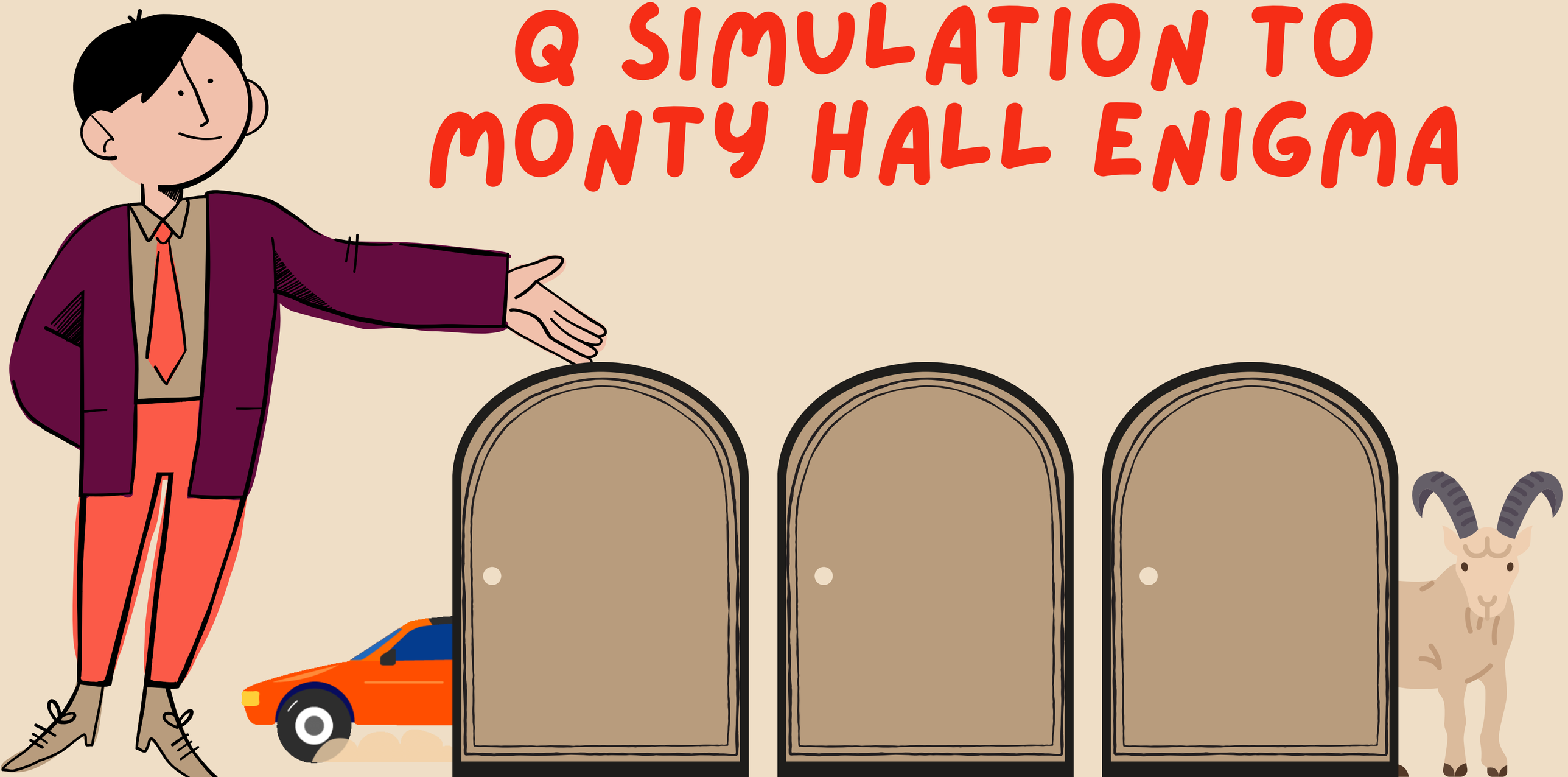
Q SIMULATION TO MONTY HALL ENIGMA



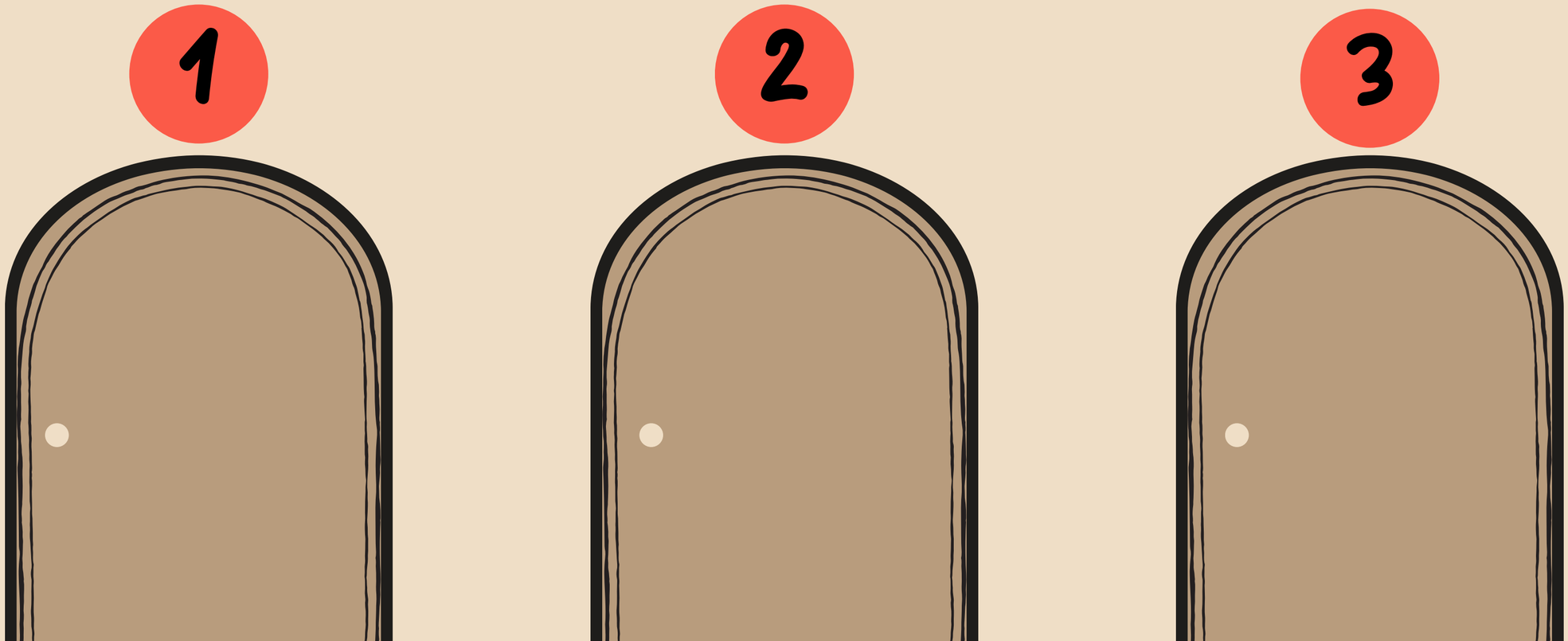
INTRO

This problem gets it name from the host of the popular game-show “Let’s Make a Deal”.

The problem first appeared in 1975 in The American Statistician Academic Journal, a highly regarded journal among statisticians.

HOW TO PLAY MONTY HALL?

Immagine you have 3 doors behind one of them there is a car and the other 2 there is a goat



HOW TO PLAY MONTY HALL?

The host will ask you which door do you think the car is behinde

let's say that you chose door number 3

HOW TO PLAY MONTY HALL?

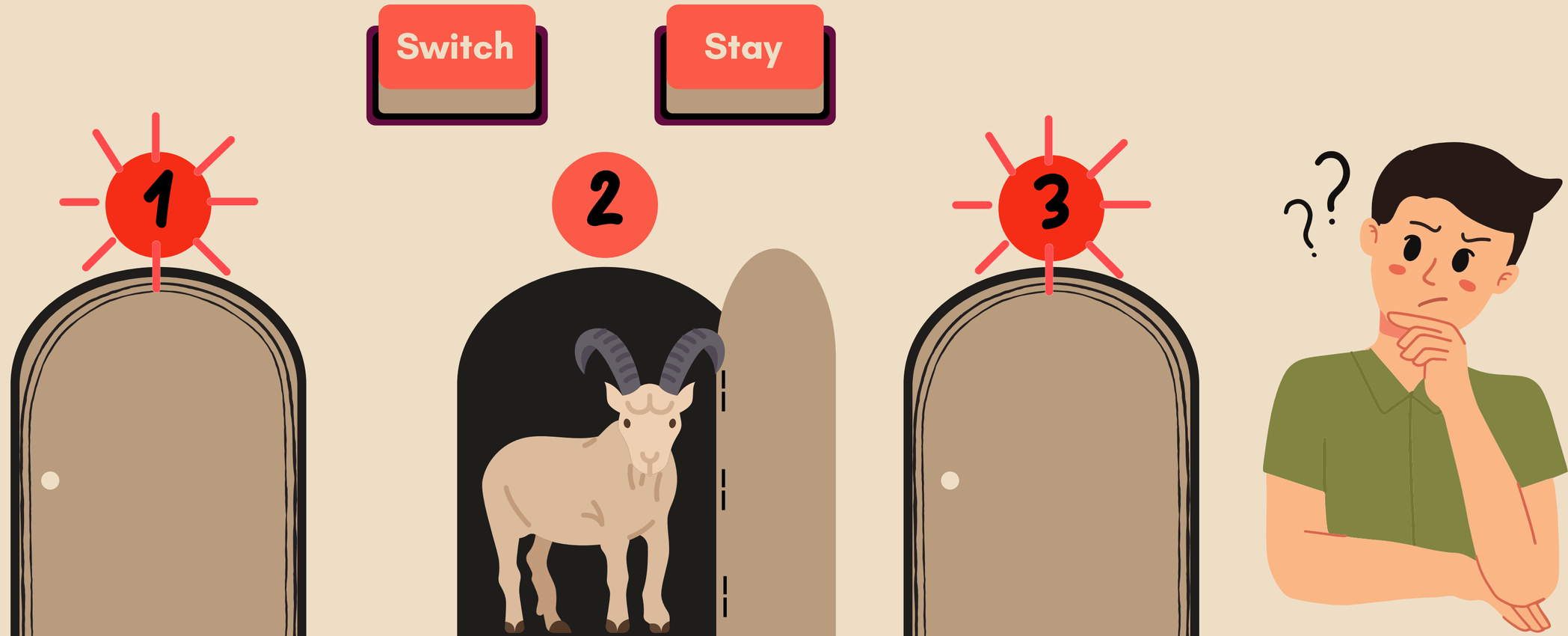
Now the host will open either door 1 or door 2, provide that there is no car behind the door which the host will choose. let's say that he choses door 2

HOW TO PLAY MONTY HALL?

Now the host will ask you,
whoud you like to swich doors or to stay on your choice?

WHAT WHOULD YOU DO??

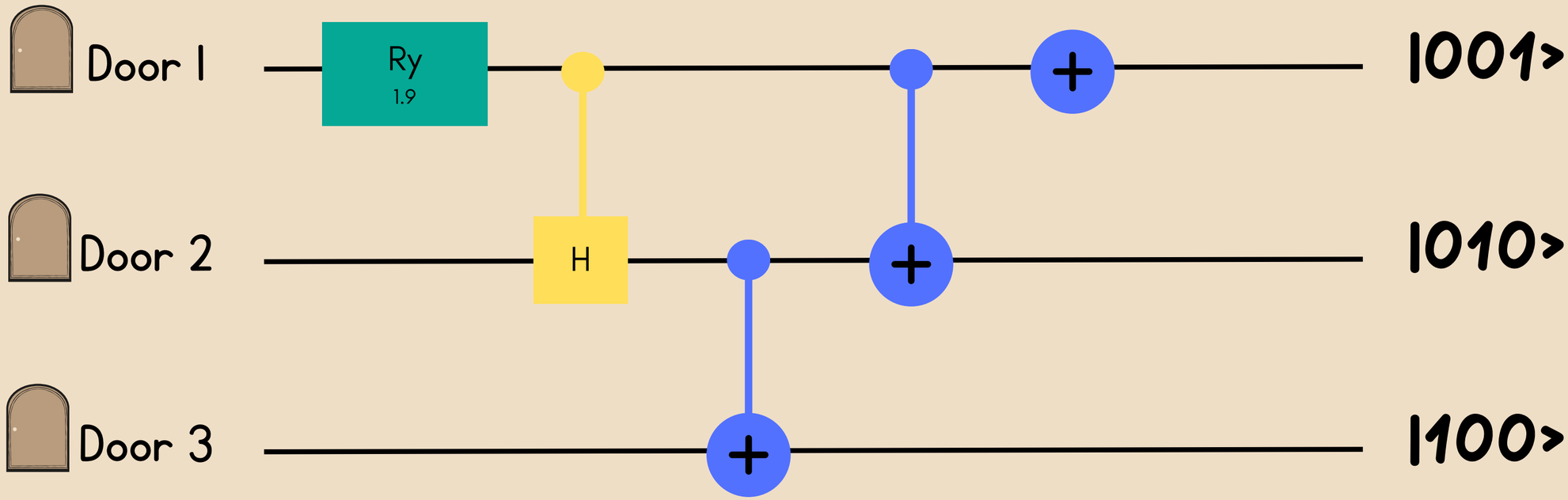
Is it better to switch doors or stick to your choice?
what is the probability that the car will be behinde one of the two remaining doors?



IS SWITCHING DOORS TO FIND THE CAR REALLY 50%, 50% ?

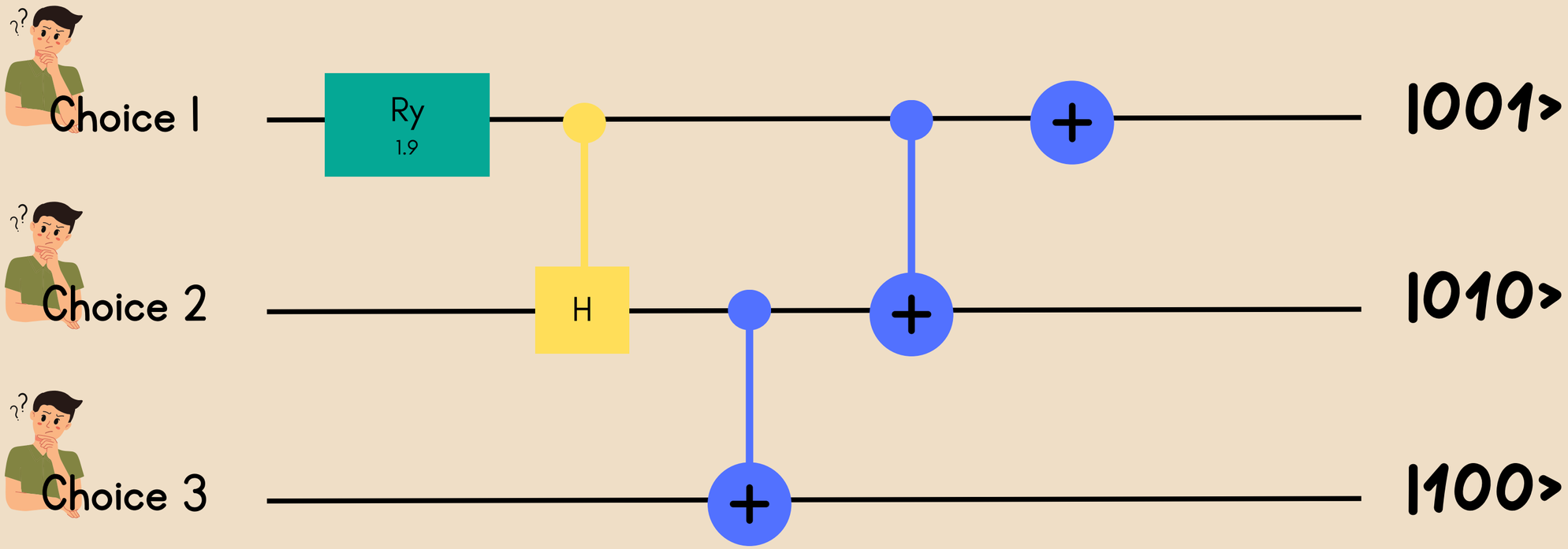
QUANTUM CIRCUIT

First 3 Qubits for the random door



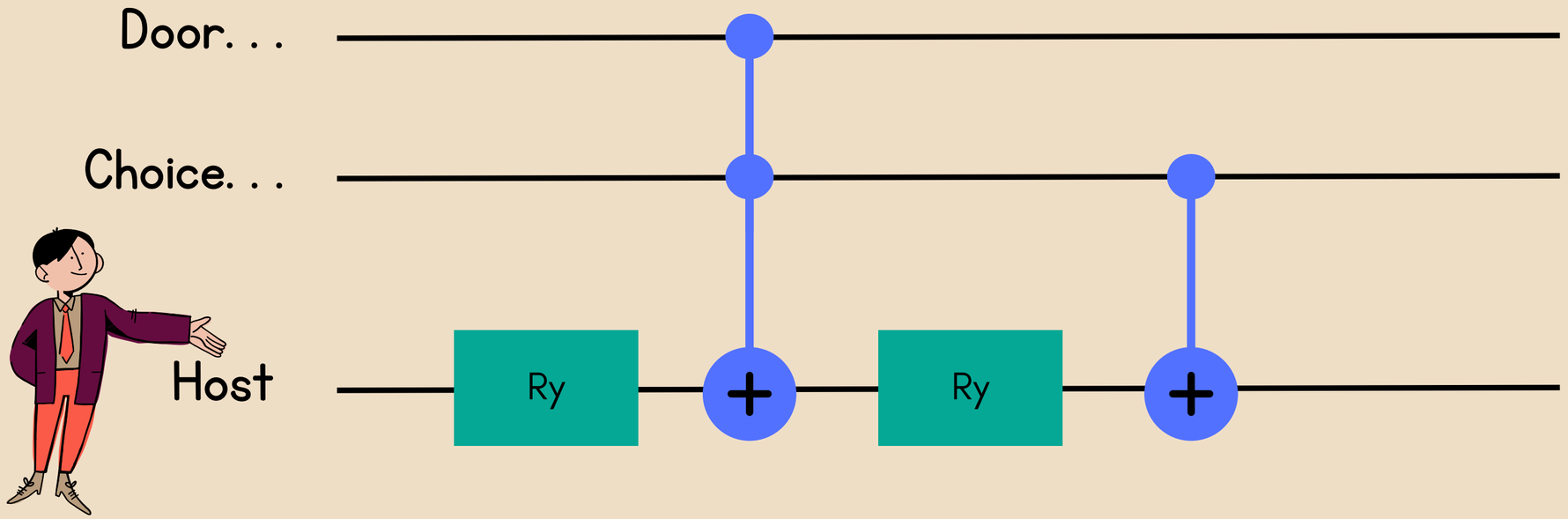
QUANTUM CIRCUIT

Second 3 Qubits for the random choice

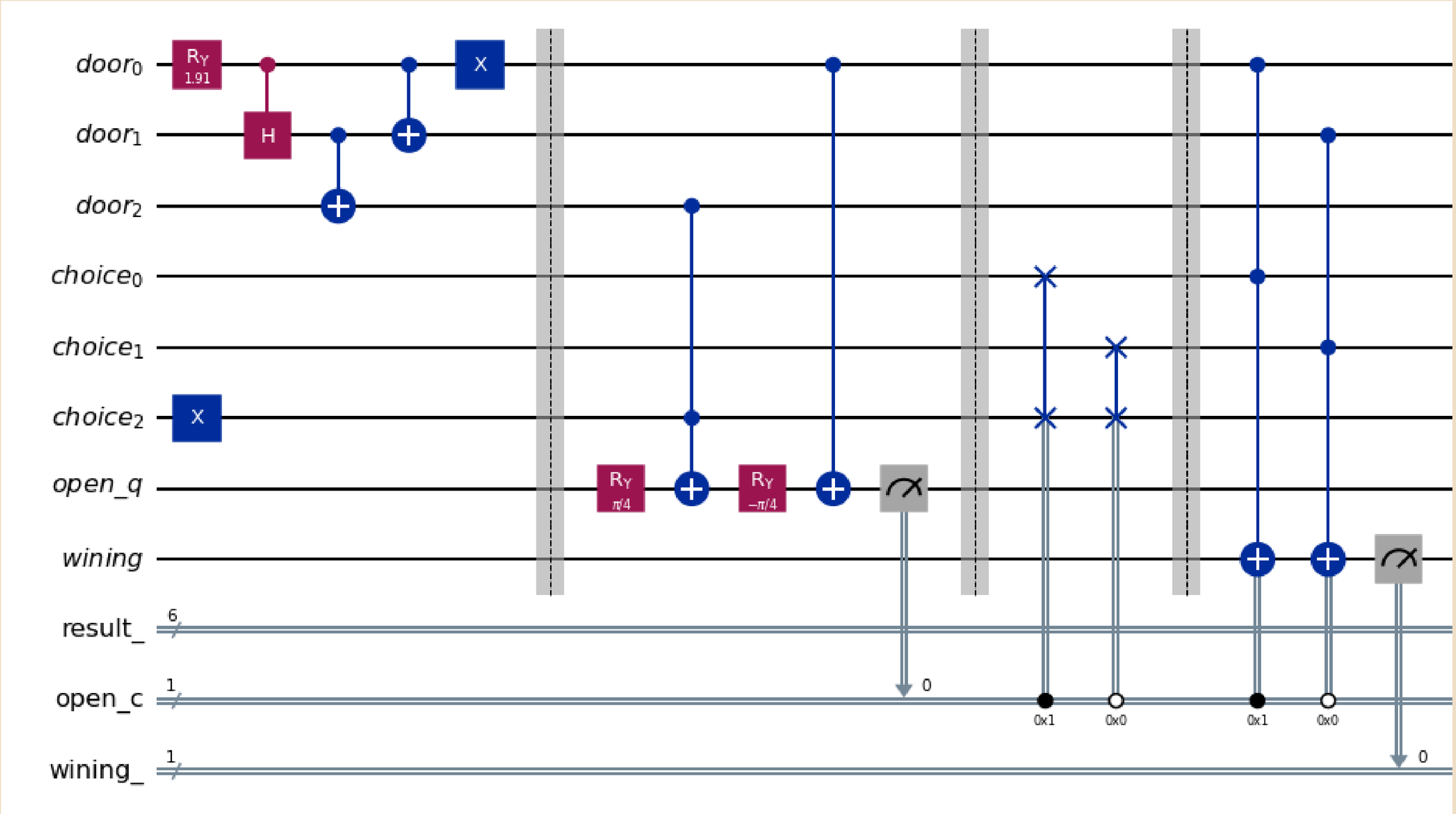


QUANTUM CIRCUIT

Last Qubit for the host

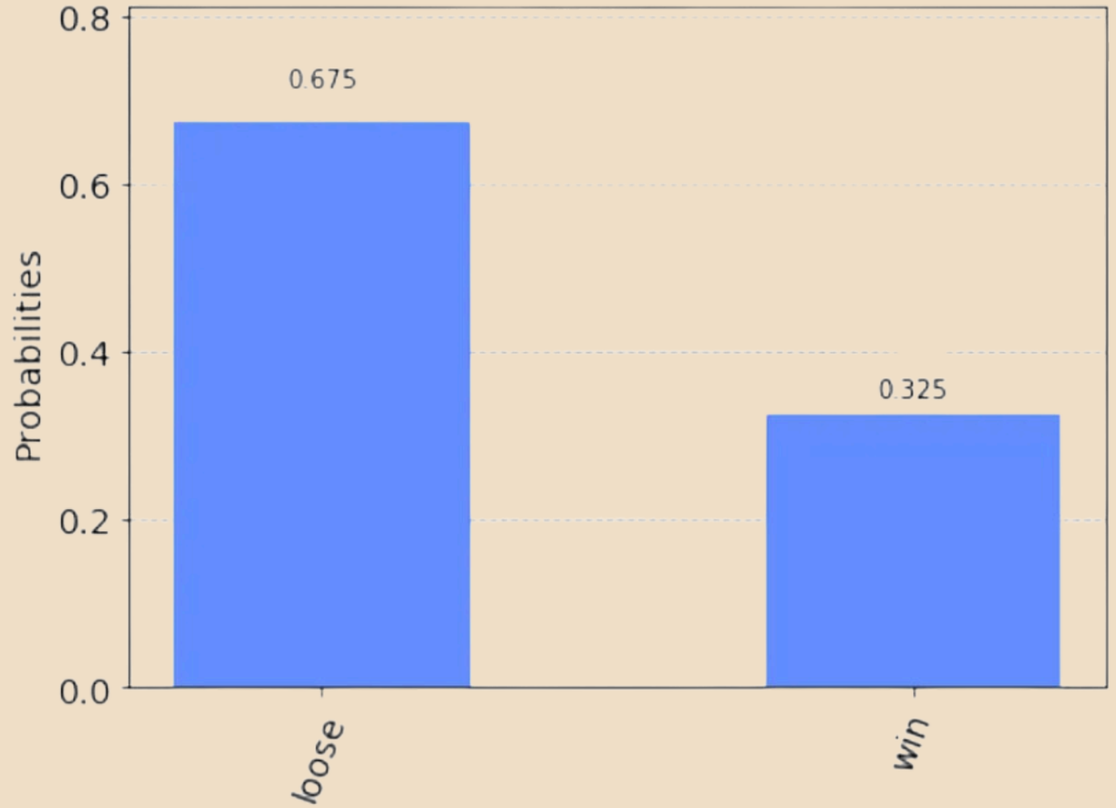


QUANTUM CIRCUIT

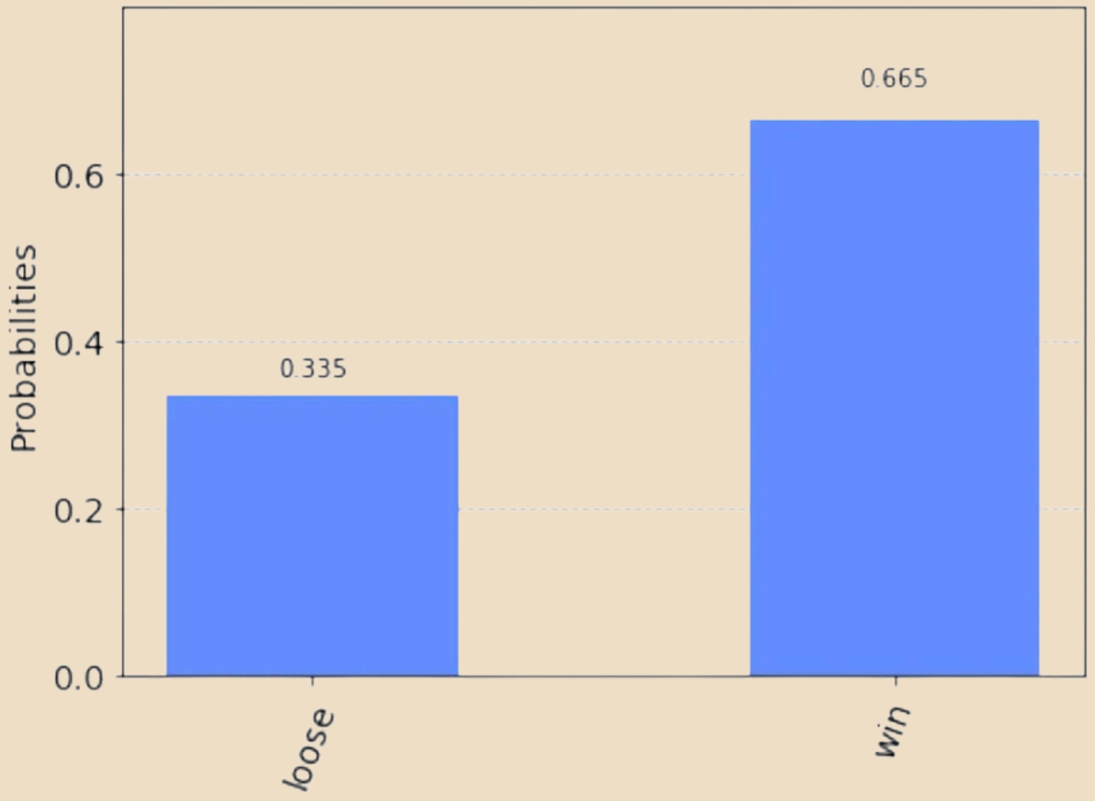


QUANTUM CIRCUIT

without swapping



with swapping

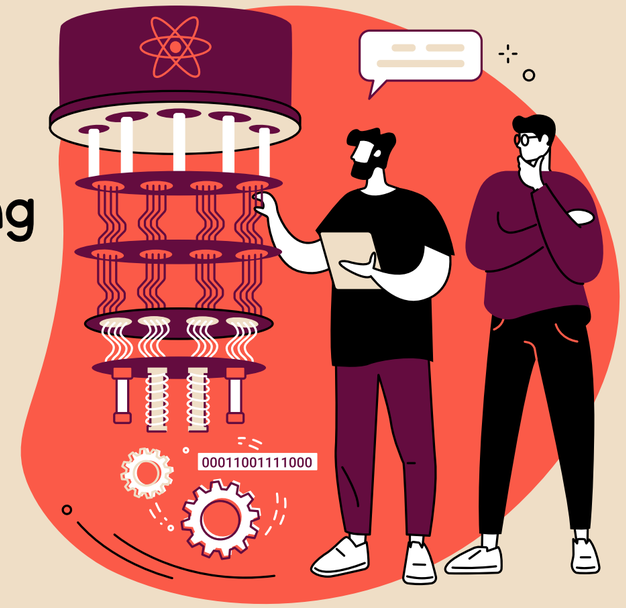


WHY QUANTUM?

BY SIMULATING THIS PROBLEM USING QUANTUM COMPUTER WE WERE ABLE TO

- Support the theory that indicates switching doors will encrease winning chance

- Performing All cases in the same time by using entanglement and superposition



Thank you!

Presented by
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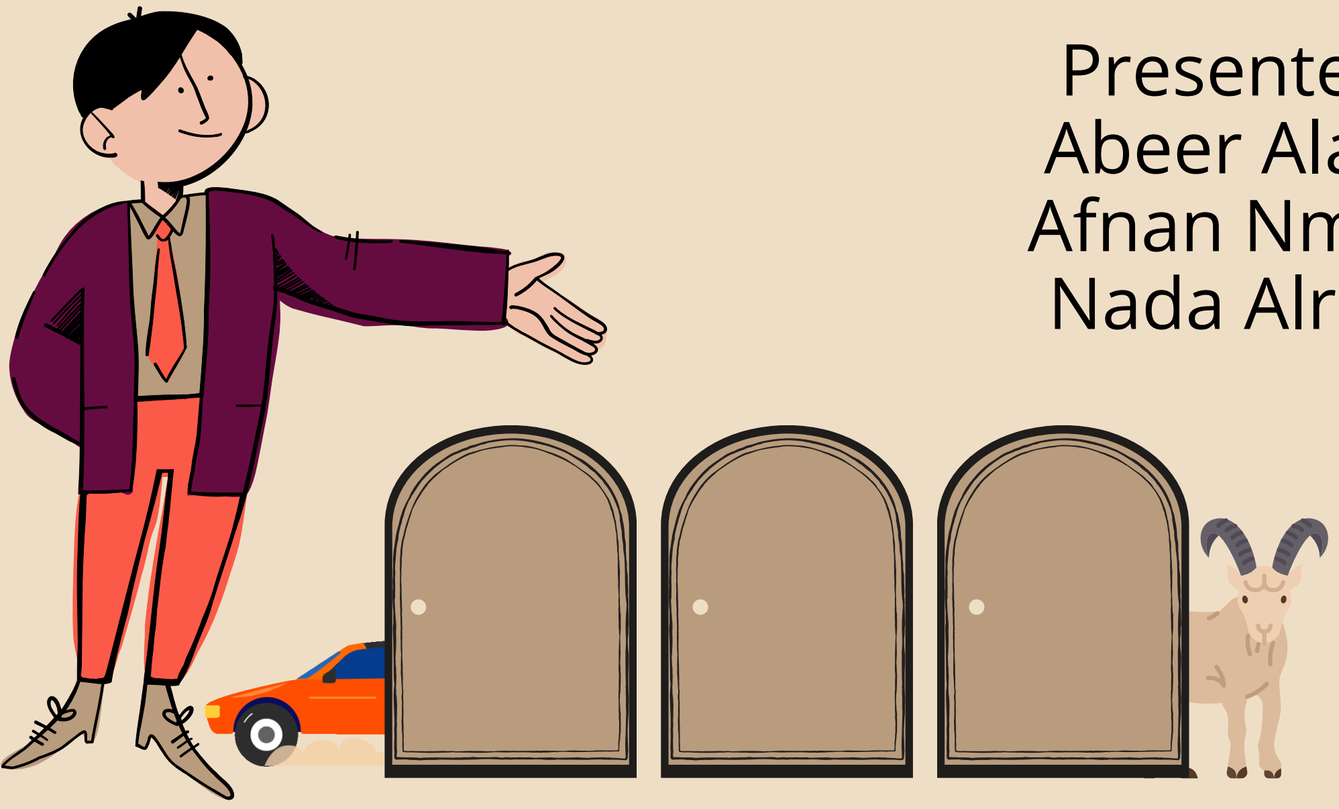

SCAN ME