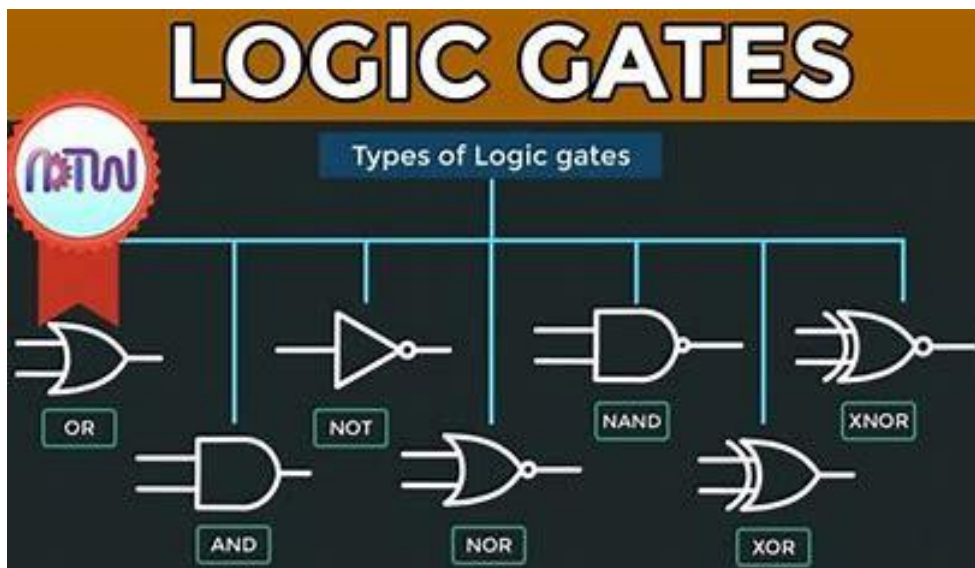


## LESSON NOTE

**SUBJECT: ICT**

**TOPIC: LOGIC GATES**

**WEEK 9-10**



### *Definition*

A **logic gate** is an electronic circuit that operates on one or more binary inputs and produces a single binary output.

Logic gates are the basic building blocks of all digital systems, performing logical operations on binary values (0s and 1s).

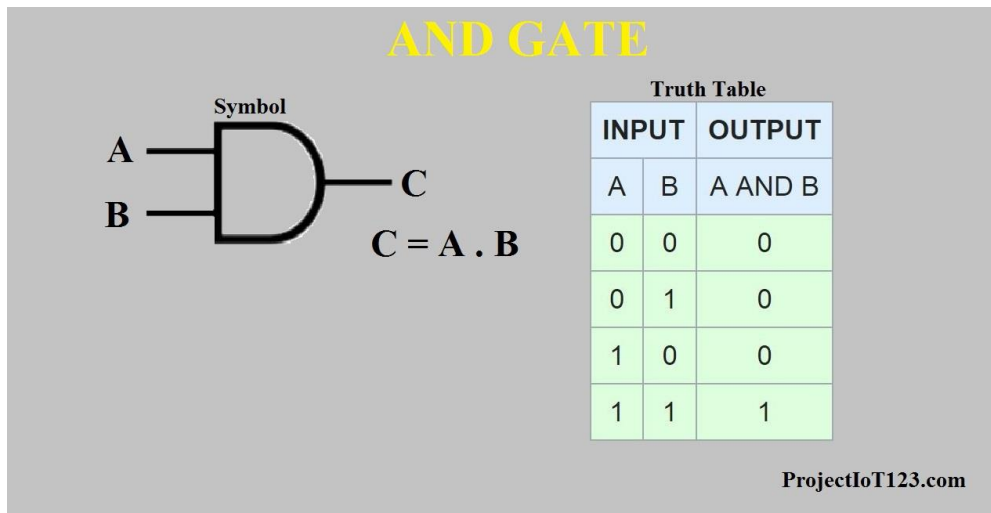
Logic gates receive binary inputs (either 0 or 1) and produce a binary output based on a specific logical operation.

### *Identifying The Types of Logic Gates:*

There are three fundamental logic gates:

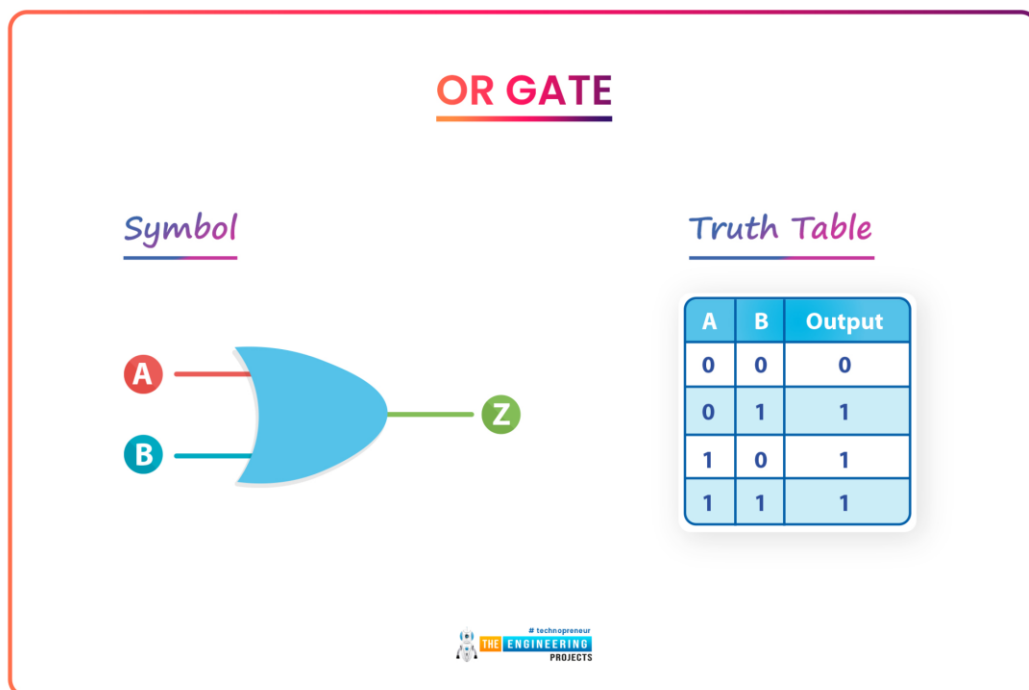
### 1. AND Gate

Outputs 1 only when all inputs are 1.



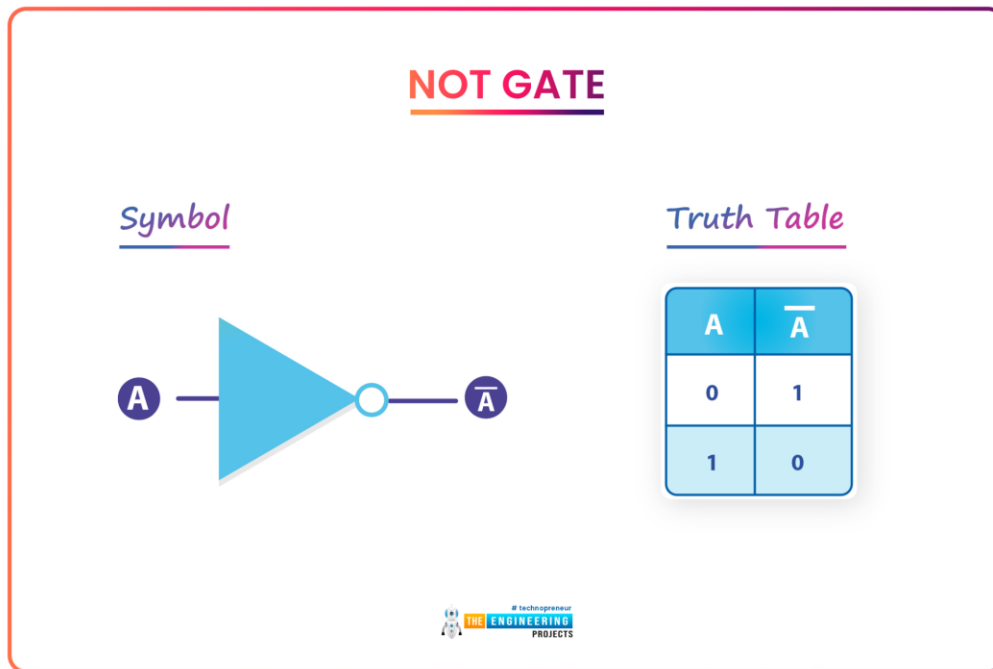
### 2. OR Gate

Outputs 1 when at least one input is 1.



### 3. NOT Gate

Inverts the input producing the opposite as output (0 becomes 1, and 1 becomes 0).



**Additional Types of Logic Gates:**

- **NAND Gate.**
- **NOR Gate**
- **XOR Gate**