



# **computer science**

# **Fundamentals**

# Hello!

I am Ziad hossam

I am here because I love to make presentations  
About technology.

# Binary system

Let's start with the first set of slides



*There are 10 kinds of people in  
the world: those who  
understand binary numerals,  
and those who don't*

# The **Binary** system



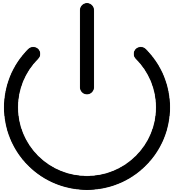
FAQ:

1-What is the **binary** system ?

A:**binary** system, positional numeral system employing 2 as the base and so requiring only two different symbols for its digits, 0 and 1, instead of the usual 10 different symbols needed in the decimal system.

2-How does it work

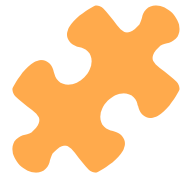
A:let's find out



# Break Concept



Did you know that this symbol contain  
the 0 and 1 in binary that present on and  
off



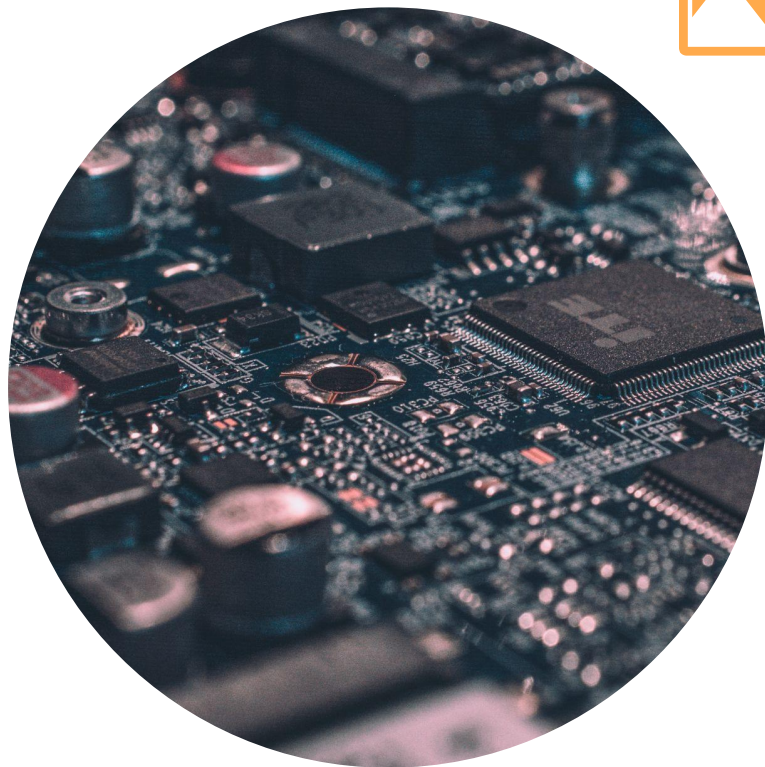
# The **Binary** numbers

Slot Num	Solt 1	Solt 2	Solt 3	Solt 4	Solt 5	Solt 6	Solt 7	Solt 8	Solt 9
Value	0	1	2	4	8	16	32	64	128
Binary Num	0	1	1	1	0	0	0	0	0

**Zero means off 1 means on**

# A picture is worth a **thousand** words

I think you started to feel  
the magic of this machine







**Want to understand more?  
Use your brain with me.**

# More **Topics** explain computer science



Colors

Ascii

Videos

Encryption



# What is Encryption

- Encryption is the process of encoding messages or information in such a way that only authorized parties can read it
- A process that converts original information, also called plain text into a difficult-to-interpret form called ciphertext
- Encryption does not of itself prevent interception, but denies the message content to the interceptor
- Done by using an encryption algorithm, a formula used to turn plain text into ciphertext

# Types of Encryption



- Symmetric key Encryption
- Asymmetric key Encryption

## Symmetric keys

→ Encryption and decryption use the same key

## Asymmetric keys

→ Encryption and decryption use different keys a **public** key and a **private** key



# Thanks!

## Any questions?

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# Resources

**ChatGpt**  
**Slide share**