اللهم صلي وسلم وبارك علي سيدنا محمد

وعلي اله وأصحابه أجمعين

PROGRAMMING ADVICES LEARN THE RIGHT WAY

مهم جداً
هذا الملف للمراجعة السريعة واخذ الملاحظات عليه فقط ،لانه يحتوي
على اقل من 20٪ مما يتم شرحه في الفيديوهات
الاستعجال والاعتماد عليه فقط سوف يجعلك تخسر كميه معلومات
وخبرات كثيره
يجب عليك مشاهدة فيديو الدرس كاملا
لاتنسى عمل لايك ومشاركة القناة لتعم الفائدة للجميع
لا تنسونا من دعائكم
ProgrammingAdvices.com
Mohammed Abu-Hadhoud
STOP
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ADVICES
LEARN THE
RIGHT WAY

اساسيات مهمه لكل مبرمج
السرعات ووحدات القياس في الكمبيوتر
1 byte
1,024
Kilobyte
1,048,576
Megabyte
1,073,741,824
Gigabyte
1,099,511,627,776
Terabyte
Mohammmed Abu-Hadhoud
26+ Years of Experience
MBA, PMOC, PgMP®, PMP®, PMI-RMP®, CM, ITILF, MCPD, MCSD
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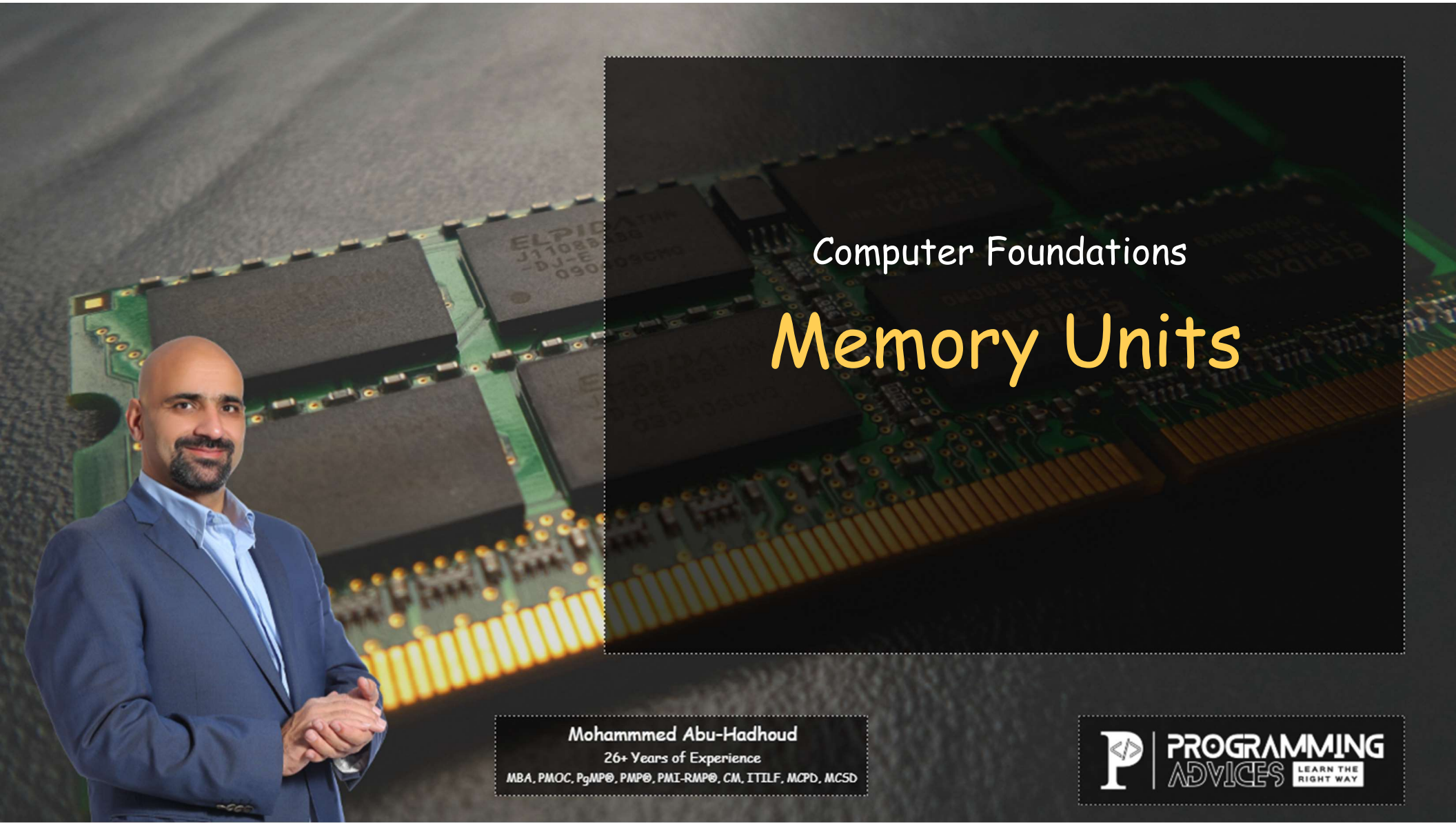
Computer Foundations
Memory Units
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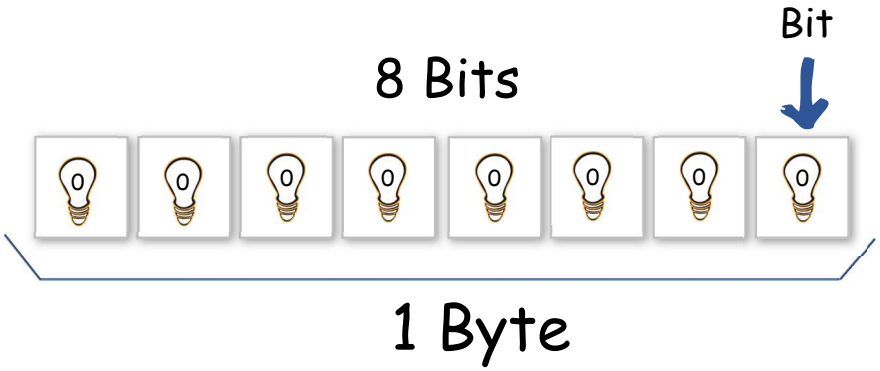
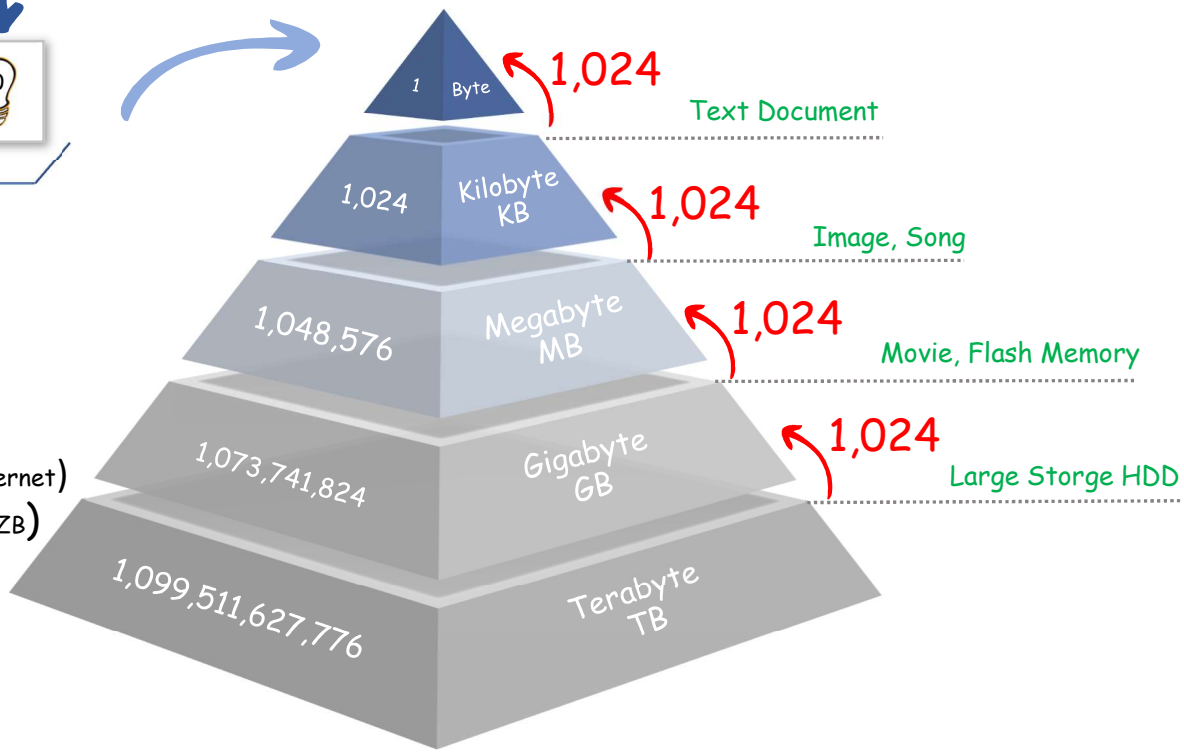
Memory Units…





There are more:

- Petabyte (PB) 10^15 (Facebook Servers 10+ PBs)
- Exabyte (EB) 10^18 (amount of data transfer over the internet)
- Zettabyte (ZB) 10^21 (whole data in the world just a few ZB)
- Yottabyte (YB) 10^24 (Huge, No practical use)

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Computer Foundations
CPU Access to Memory
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26+ Years of Experience
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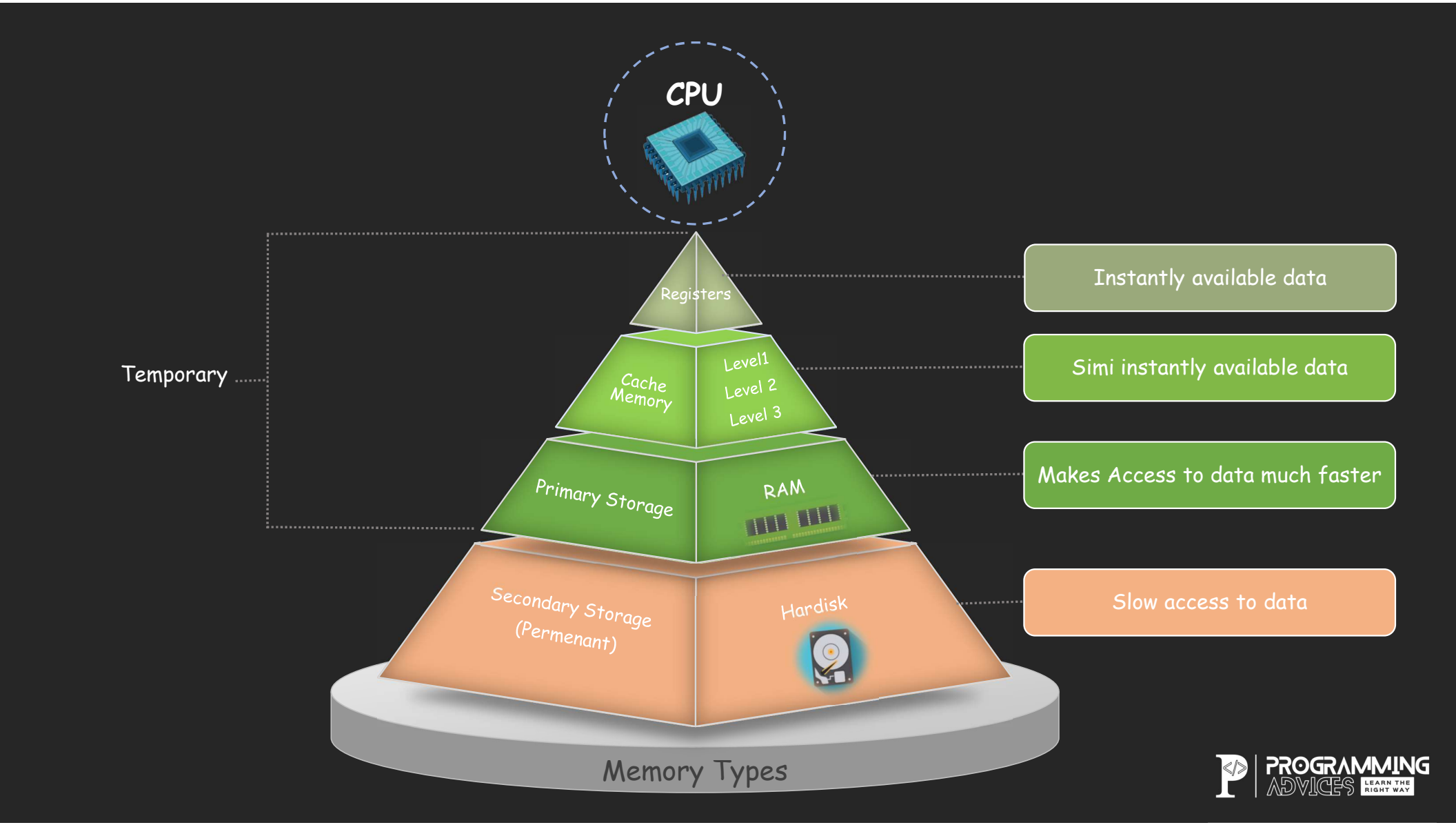
CPU
Registers
Cache Memory
Level1
Level 2
Level 3
Primary Storage
RAM
Secondary Storage (Permenant)
Hardisk
Memory Types
Temporary
Instantly available data
Simi instantly available data
Makes Access to data much faster
Slow access to data
PROGRAMMING ADVICES
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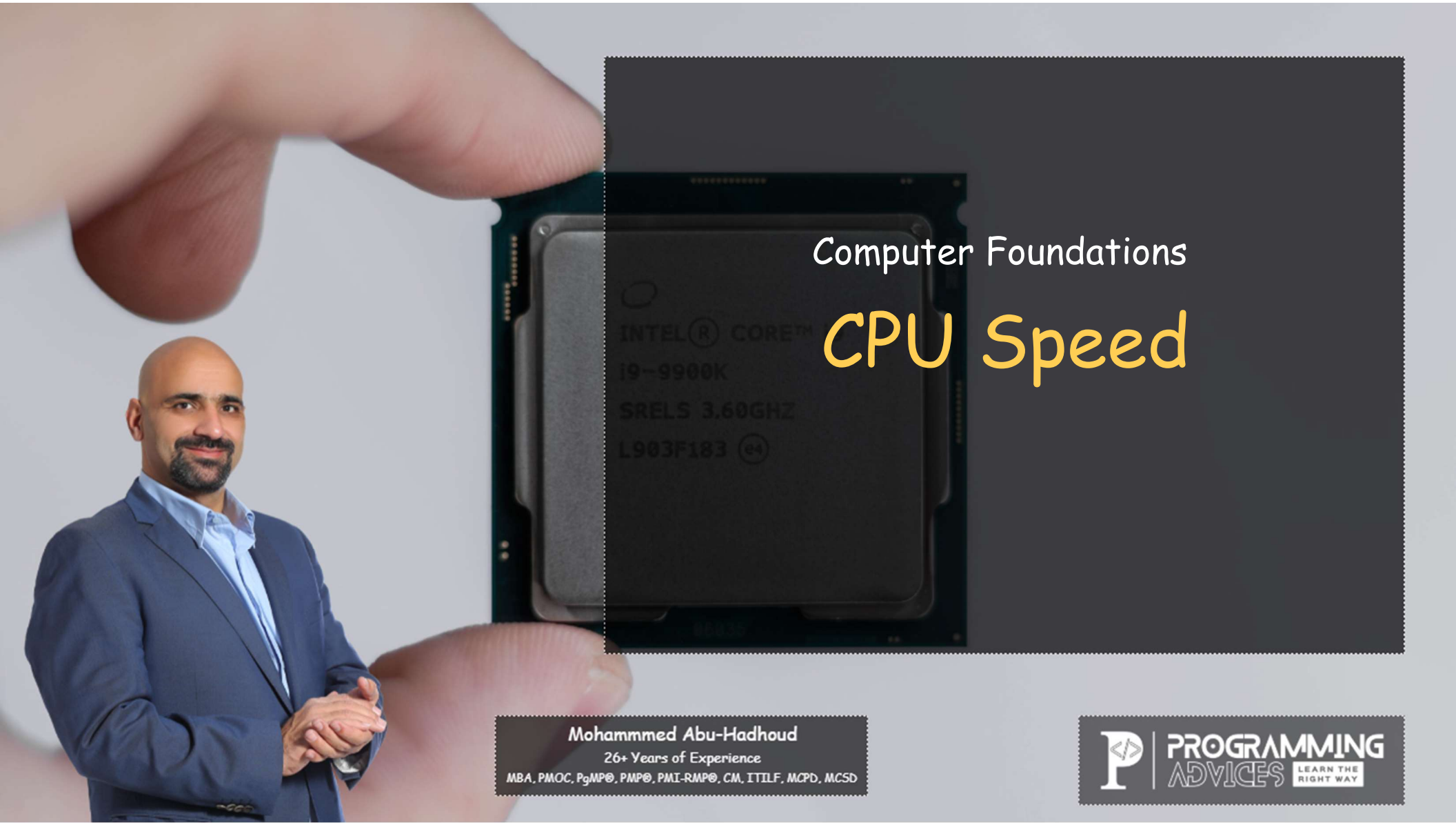
Computer Foundations
CPU Speed
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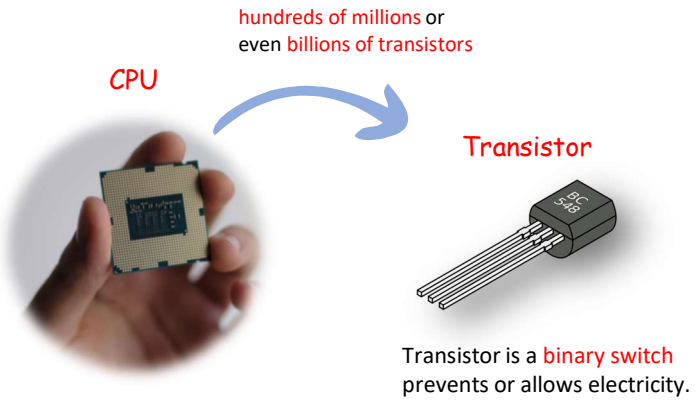
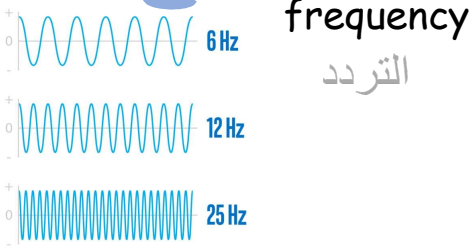
CPU Speed



بالتالي كل لما يكون عدد الدورات اعلي بيكون السي بي يو اسرع بشرط يكونوا نفس الجيل

- Higher clock speed means a faster CPU (within the same generation)
- Clock speed (also "clock rate" or "frequency") is one of the most significant.
- A CPU with a clock speed of 3.2 GHz executes 3.2 billion cycles per second.

بيتحدد علي اساسهم سرعه الكمبيوتر



frequency
التردد

Hertz HZ➔ Cycles per second
(Clock Cycle)
عدد الدورات ف الثانيه

During each cycle, billions of transistors within the processor open and close.

ف الدوره الواحده مليار الترانزستورات بتشتغل وتطفي

PROGRAMMING ADVICES LEARN THE RIGHT WAY

Device specifications

Device name	MSaqer-Mac
Processor	Intel(R) Core(TM) i9-9880H CPU @ 2.30GHz 2.30 GHz
Installed RAM	16.0 GB (15.9 GB usable)
Device ID	DA94F72E-CA16-4D3D-9AFE-78DA0D409BA6
Product ID	00329-10286-19105-AA841
System type	64-bit operating system, x64-based processor
Pen and touch	No pen or touch input is available for this display

PROGRAMMING ADVICES LEARN THE RIGHT WAY

Computer Foundations
32-Bit vs 64-Bit
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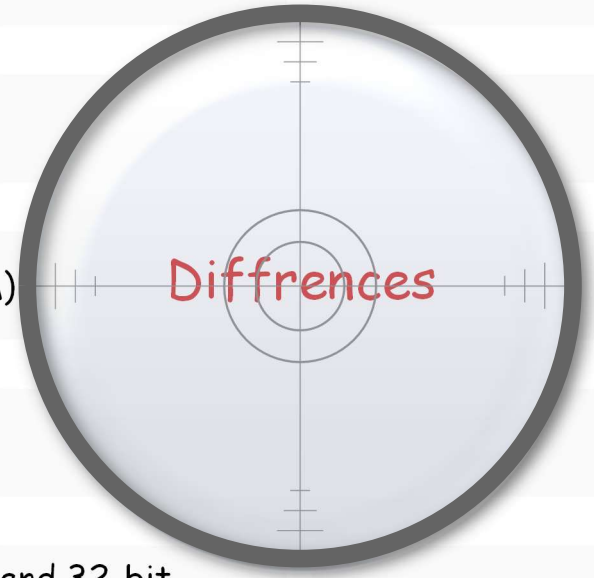
32-Bit	VS	64-Bit
Less processing power, older, slower, and less secure	Diffrences	More processing power, newer, faster, and more secure
2^32 (or 4,294,967,296) bytes		2^64 (or 18,446,744,073,709,551,616) bytes
Can allocate only 4GB of memory (RAM)		Can allocate much more RAM
Referred to as x86 or x86-32		Referred to as x64 or x86-64
Can only run a 32-bit operating system and 32-bit software		Can run both 64-bit and 32-bit operating systems and software



Note: if you have installed 32-bit operating system on a 64-bit computer, then it can run 32-bit software only.

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