





## 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**

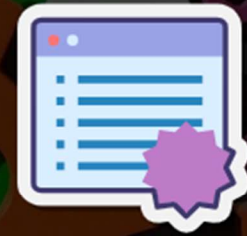
Mohammed Abu-Hadhoud







# اساسيات مهمه لكل مبرمج لغات البرمجة الجزء 2 Compiler vs Interpreter



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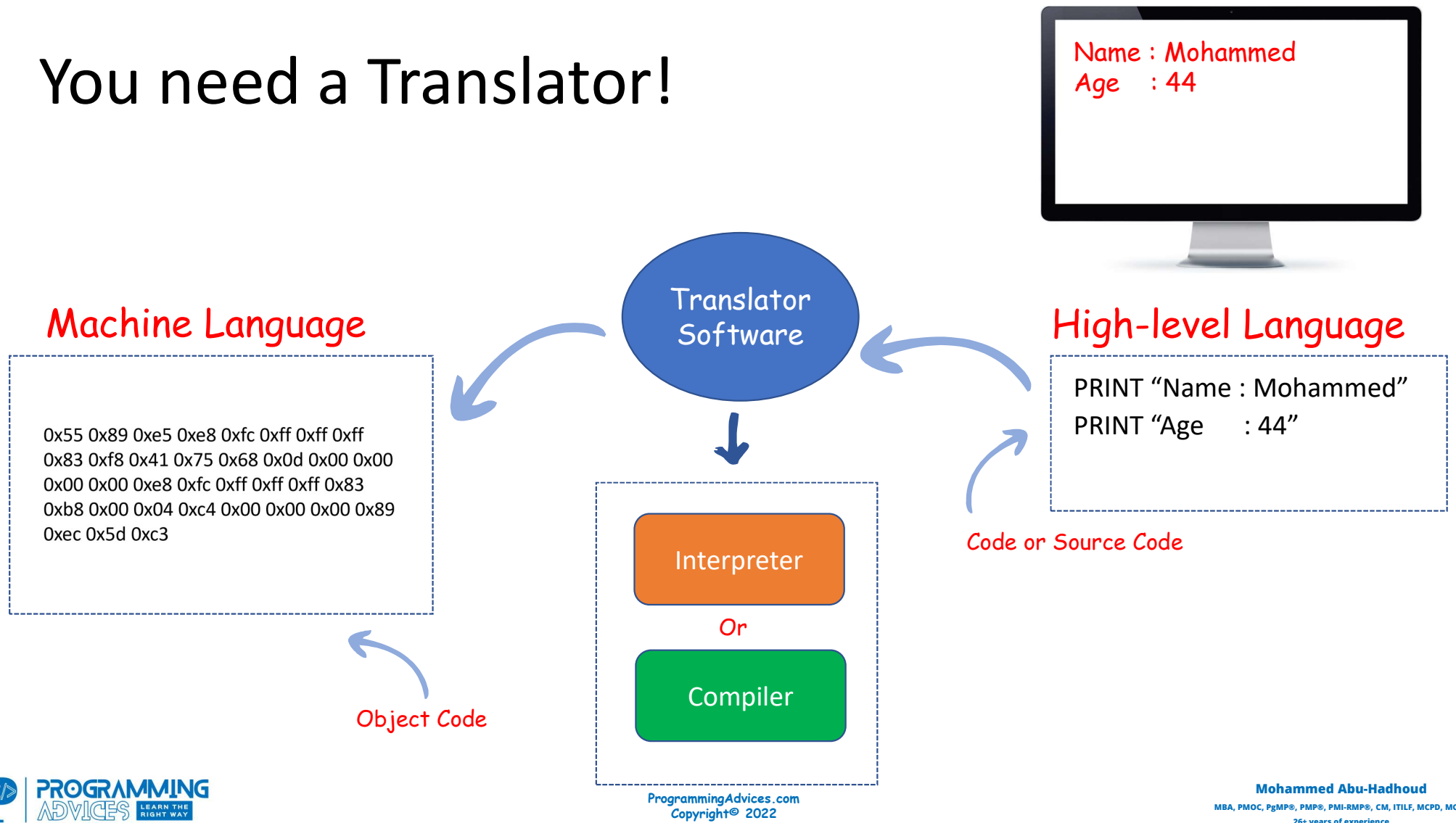
26+ Years of Experience

MBA, PMOC, PgMP®, PMP®, PMI-RMP®, CM, ITILF, MCPD, MCSD



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# You need a Translator!







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# Compiler

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# Compiler:

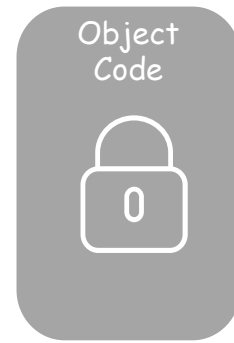
Build



Input

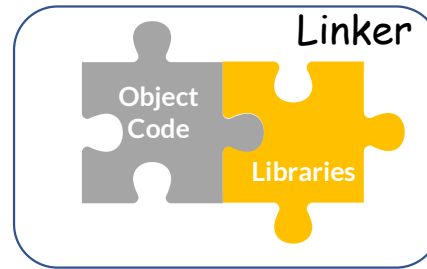


Output



Saved on HDD

```
0x55 0x89 0xe5 0xe8 0xfc 0xff 0xff 0xff
0x83 0xf8 0x41 0x75 0x68 0xd0 0x00 0x00
0x00 0x00 0xe8 0xfc 0xff 0xff 0xff 0x83
0xb8 0x00 0x04 0xc4 0x00 0x00 0x00 0x89
0xec 0x5d 0xc3
```



Loader

Saved on HDD

```
PRINT "Name : Mohammed"
PRINT "Age   : 44"
```



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# How Compiler Works?

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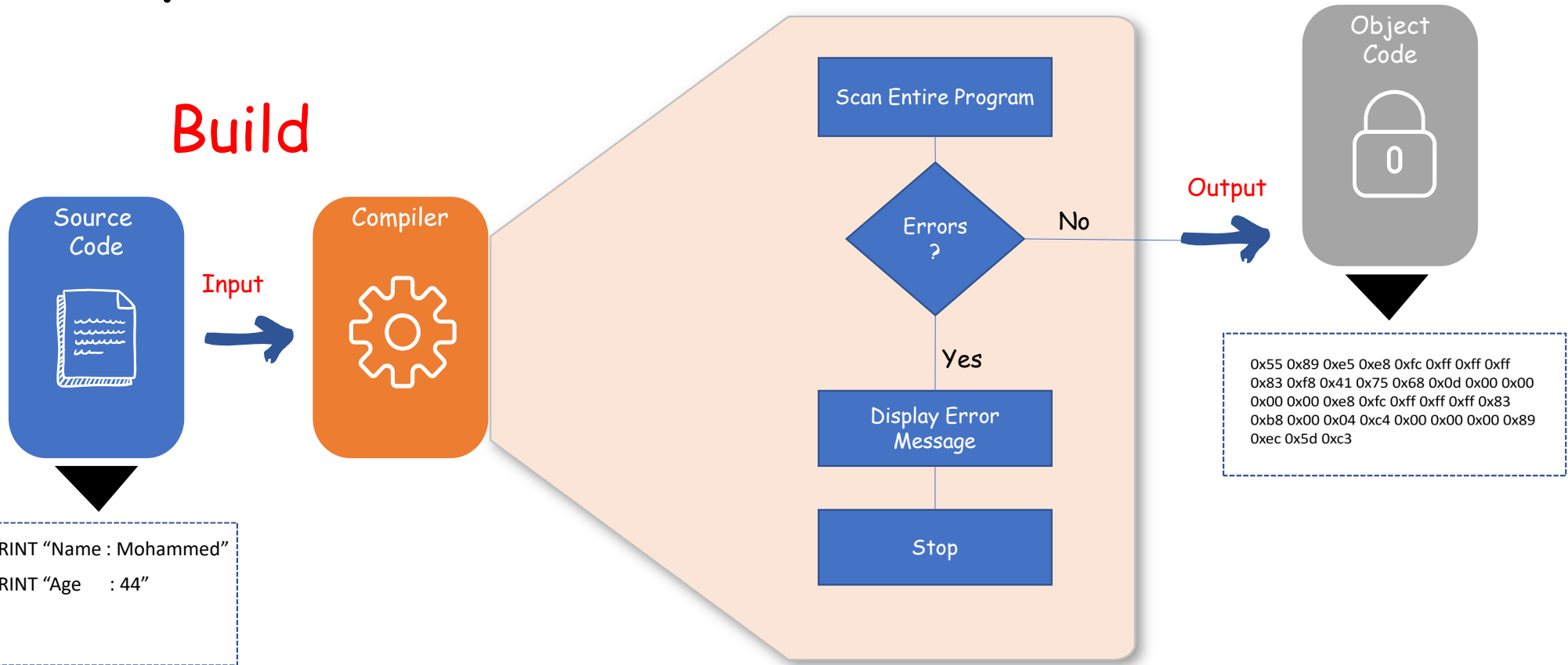
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# Compiler:

Build







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# How Interpreter Works?

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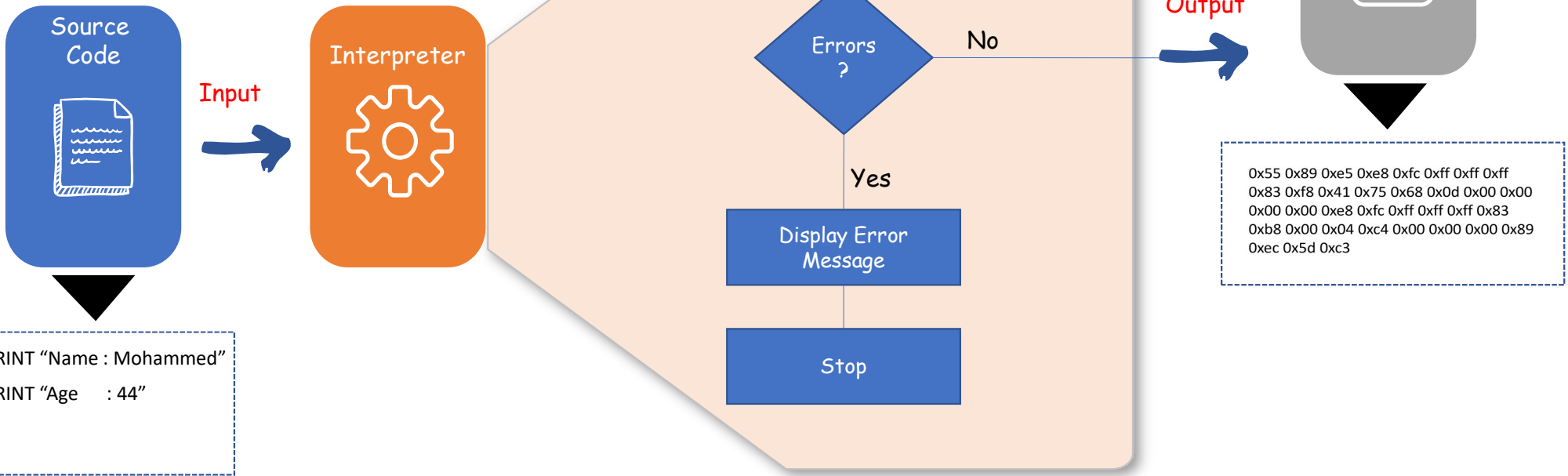
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# Interpreter:

# ~~Build~~ Run





# Which is Faster?

Compiled or Interpreted  
Languages?

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Compiled Languages are much faster than interpreted Languages.



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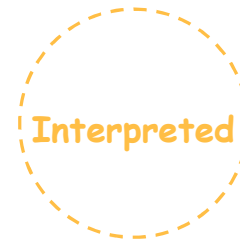
# Compiler vs Interpreter

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Reads the Entire Code at once

Reads one instruction at a time

Execute the process is much faster

Execute the process is much slower

Machine Code is stored in HDD

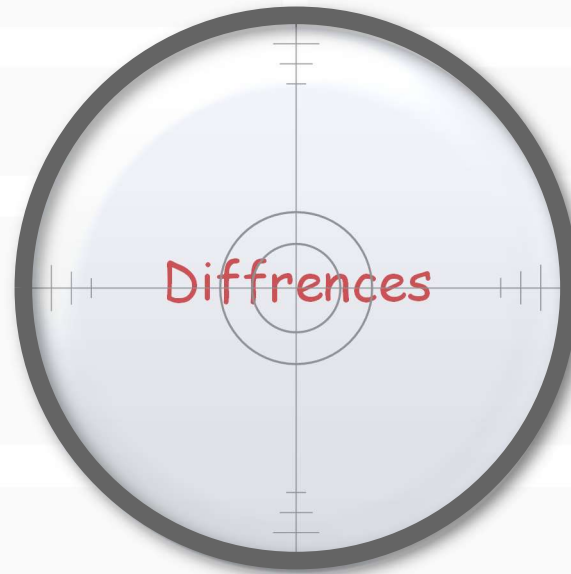
Does not store any machine code on HDD

Generates exe file

No exe file generated

C, C++

Ruby, Python, Javascript.







# What is Assembler?

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**Assembler** is the program that translate the assembly code to Machine code.

# Homework



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## Answer the following questions:

- What is compiler? And how it works?
- What is Interpreter? And how it works?
- What is Assembler?
- What is Linker?
- What is exe file?
- What is Loader?
- Which is faster Compiled or Interpreted languages?
- Does Interpreter produce exe file?
- Does Interpreter save machine code?
- Does Compiler produce exe file?
- Does Compiler save machine code?

Thank you 😊