



IN THE NAME OF ALLAH

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

THE GRACIOUS, THE MERCIFUL.

LECTURE 1: LEARNING JAVA PROGRAMMING

AT: GETS – GETTING EDUCATION WITH
TECHNOLOGICAL SYSTEM

INSTRUCTOR: SIR A.REHMAN

WHAT IS COMPUTER PROGRAMMING LANGUAGE?



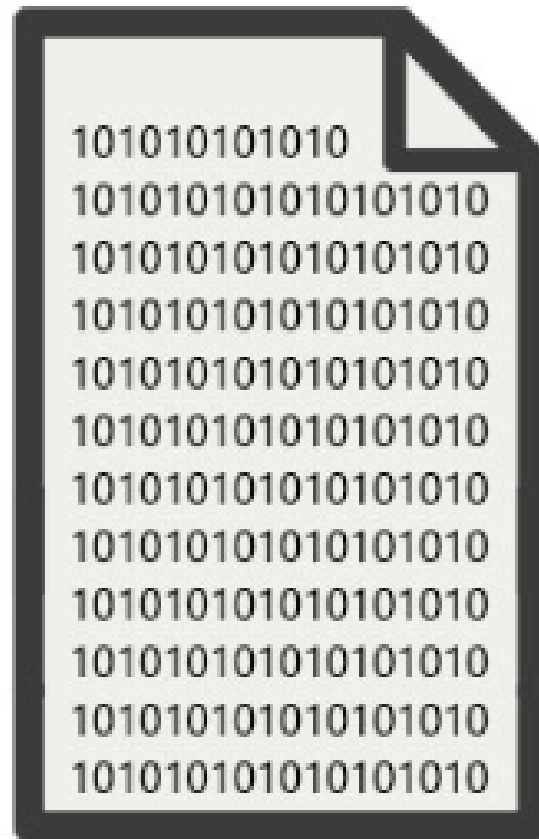
- ❖ Computer programming languages allow us to give instructions to a computer in a language the computer understands.

[CLICK ME TO WATCH THE VIDEO](#)

❖ The language that a computer can understand is called a “binary.”

Translating programming language into binary is known as “compiling.”

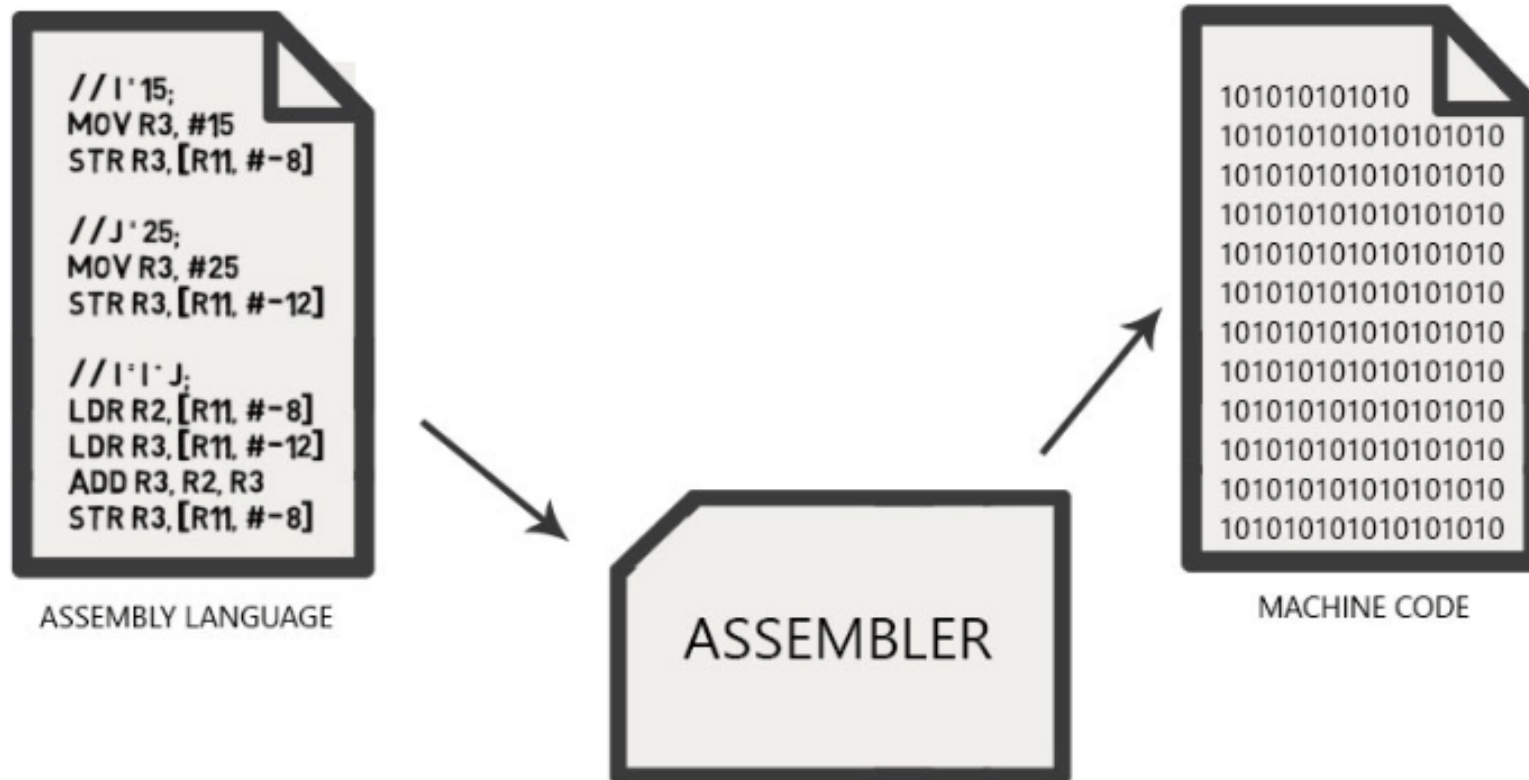
PROGRAMMING IN MACHINE LANGUAGE
OR BINARY CODE IS MUCH HARD TO
UNDERSTAND FOR HUMANS.



MACHINE CODE

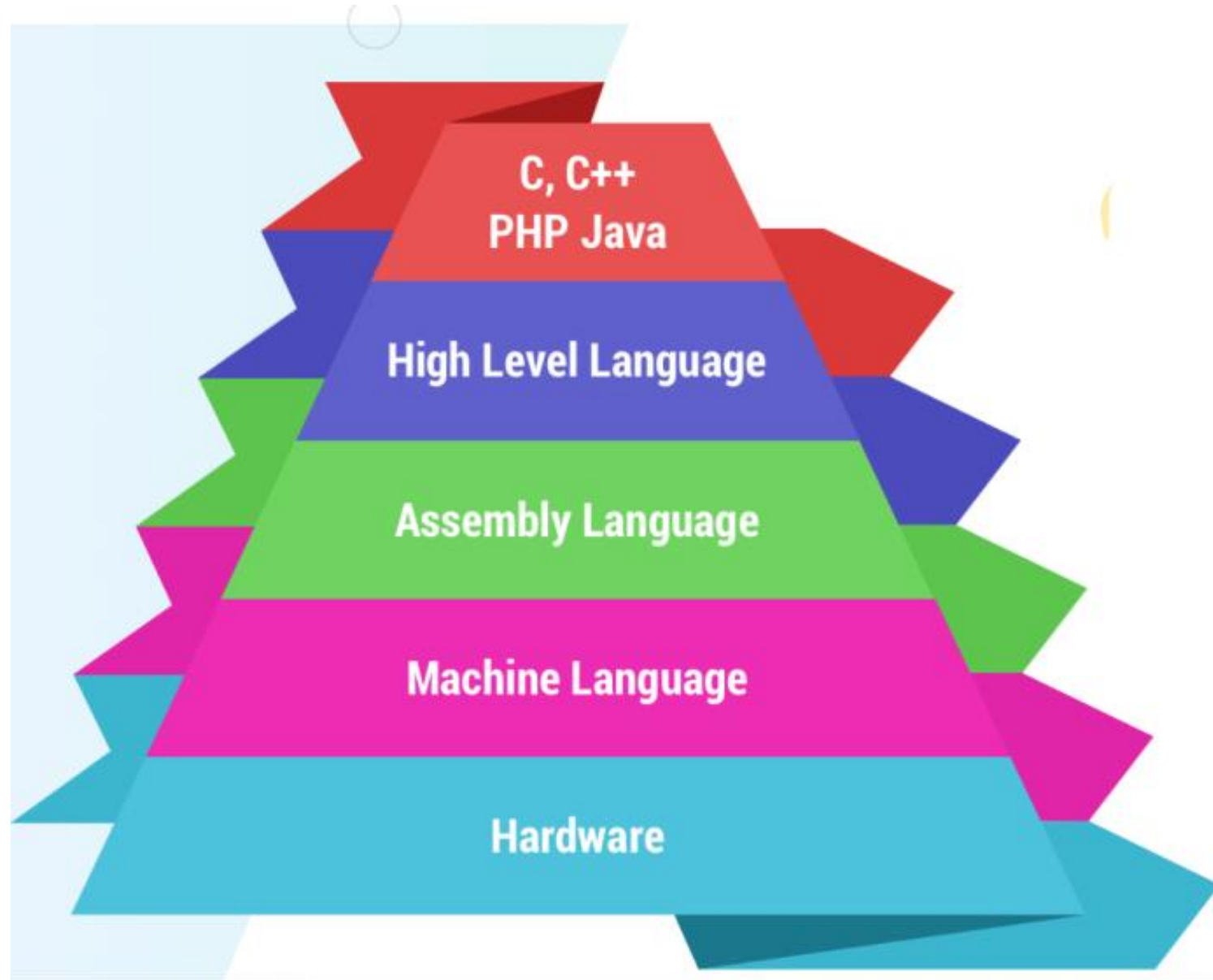


ASSEMBLY LANGUAGE MEANS LOW-LEVEL or MEDDLE-
LEVEL LANGUAGE IS ALSO HARD FOR HUMAN TO
UNDERSTANDS.



FOR MAKING THE PROGRAMMING IS EASY
FOR EVERYONE THEN PROGRAMMER
BUILD HIGH-LEVEL LANGUAGES

LEVEL OF COMPUTER LANGUAGES



Computer Languages

Low Level Language (Machine Language)

Use 1' s & 0' s to
create instructions

Ex: Binary Language

```
01001000
01000101
01001100
01001100
01001111
```

```
01010111
01001111
01010010
01001100
01000100
```

[HELLO WORLD]

Middle Level Language (Assembly Language)

Use mnemonics to
create instructions

Assembly Language

```
org 100h
jmp start
msg:  db      "Hello, World!", 0Dh,0Ah, 24h
start: mov     dx, msg
      mov     ah, 09h
      int     21h

      mov     ah, 0
      int     16h

ret
```

High Level Language

Similar to
human language

COBOL, FORTRAN, BASIC
C, C++, JAVA

```
public class Hello
{
    public static void main(String[] args)
    {
        System.out.println("Hello World!");
    }
}
```

There are an many high-level computer programming languages that programmers can use to communicate with a computer like:

Python



Java



**Ruby/Ruby on
Rails**



HTML



JavaScript



C Language



C++



C#



Objective-C



PHP



SQL



Swift



WE HAVE SELECTED THE JAVA PROGRAMMING
LANGUAGE IN THIS COURSE



WHAT WE HAVE LEARN FROM THIS LESSON:

- ❖ What is Computer Programming Language
- ❖ Machine Language is hard for human understandable
- ❖ Assembly is also hard for human
- ❖ Different Between Low-Level, Middle-Level, High-Level Languages