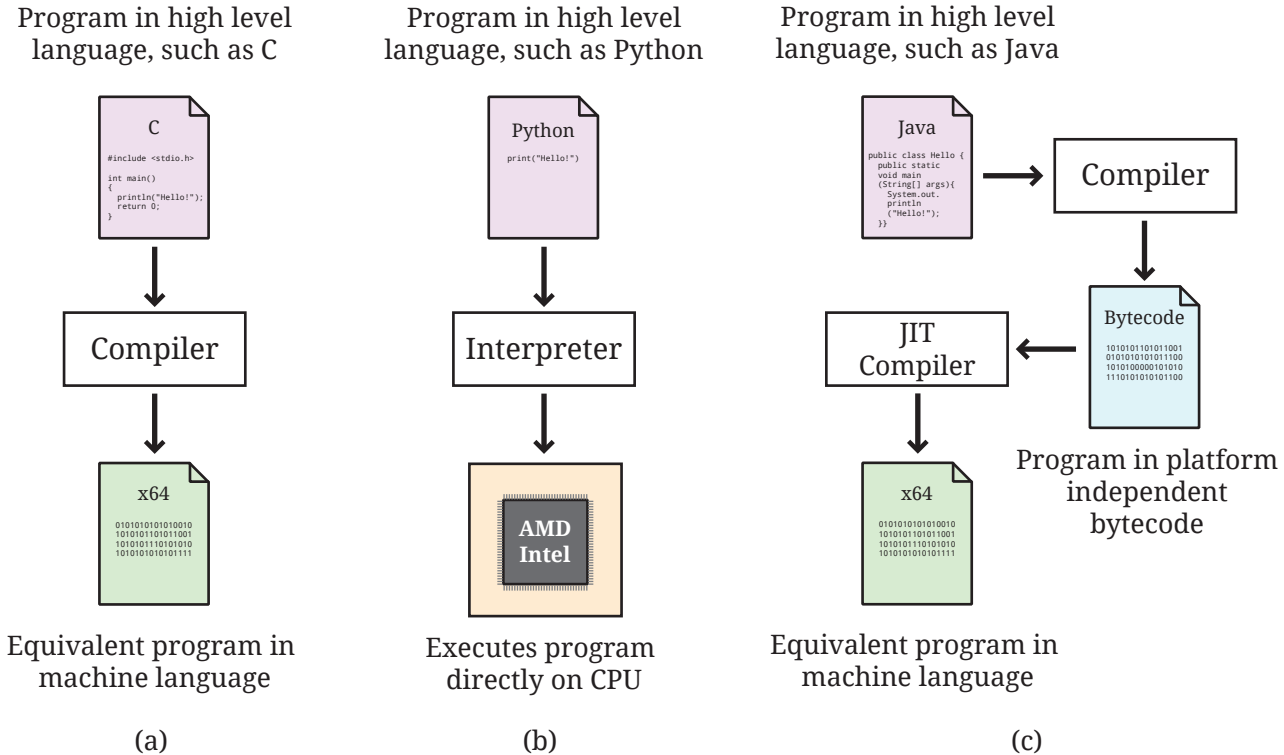
Program in high level language, such as C
C
#include <stdio.h>
int main()
{
println("Hello!");
return 0;
}
Compiler
x64
0101010101010010
1010101101011001
1010101110101010
1010101010101111
Equivalent program in machine language
(a)
Program in high level language, such as Python
Python
print("Hello!")
Interpreter
AMD
Intel
Executes program directly on CPU
(b)
Program in high level language, such as Java
Java
public class Hello {
public static
void main
(String[] args){
System.out.
println
("Hello!");
}}
Compiler
Bytecode
1010101101011001
0101010101011100
1010100000101010
1110101010101100
JIT Compiler
x64
0101010101010010
1010101101011001
1010101110101010
1010101010101111
Program in platform independent bytecode
Equivalent program in machine language
(c)