

What is NOP:

Description:

In computer science, a **NOP (No Operation)**, no-op, or NOOP is a machine language instruction, and it is an assembly language mnemonic, programming language statement, or computer protocol command that does **nothing**.

Uses:

1- Cracking:

NOPs are often involved when cracking software that checks for serial numbers, specific hardware or software requirements, presence, or absence of hardware dongles, etc.

2- Security Exploits:

The NOP opcode can be used to form a **NOP slide**, which allows code to execute when the exact value of the instruction pointer is indeterminate (e.g., when a buffer overflow causes a function's return address on the stack to be overwritten).

To learn more about NOP Slide technique and how it's used in buffer overflow, I'd recommend reading the article below, good luck.

https://en.wikipedia.org/wiki/Buffer_overflow#NOP_sled_technique