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Evolution of Microprocessors

We can categorize the microprocessor according to the generations or according to the size of the microprocessor:

First Generation (4 - bit Microprocessors)

The first generation microprocessors were introduced in the year 1971-1972 by Intel Corporation. It was named Intel 4004 since it was a 4-bit processor.

It was a processor on a single chip. It could perform simple arithmetic and logical

operations such as addition, subtraction, Boolean OR and Boolean AND.

Second Generation (8 - bit Microprocessor)

The second generation microprocessors were introduced in 1973 again by Intel. It was a first 8 - bit microprocessor which could perform arithmetic and logic operations on 8-bit words. It was Intel 8008, and another improved version was Intel 8088.

Third Generation (16 - bit Microprocessor)

The third generation microprocessors, introduced in 1978 were represented by Intel's 8086, Zilog Z800 and 80286, which were 16 - bit processors.

Fourth Generation (32 - bit Microprocessors)

Several different companies introduced the 32-bit microprocessors, but the most popular one is the Intel 80386.

Fifth Generation (64 - bit Microprocessors)

From 1995 to now we are in the fifth generation. After 80856, Intel came out

with a new processor namely Pentium
processor followed by Pentium Pro

Table: Important Intel Microprocessors

Microprocessor	Year of Invention	Word Length
4004	1971	4-bit
8085	1976	8-bit
8086	1978	16-bit
80286	1982	16-bit
80386	1985	32-bit
80486	1989	32-bit

Pentium	1993	32-bit
Pentium Pro	1995	32-bit
Pentium II	1997	32-bit
Pentium III	1999	32-bit
Pentium 4	2000	32-bit
Itanium	2001	64-bit

