

History of Computers

Abacus	The first calculation device.
William Oughtred	Slide Rule
Blaise Pascal	1640's Invented the Pascaline (Mechanical Calculator); Theologian- Penses
Gottfried von Leibnitz -	Device to add, subtract, multiply, divide and do square roots.

19th Century

Joseph Jacquard	<ul style="list-style-type: none">✓ Inventor of Punch card to control silk looms Punch Cards sent instruction to a machine.(Like a roller for a player piano.)✓ The first time data could be stored and brought back later- gave rise to programming.
Charles Babbage:	<ul style="list-style-type: none">„ Called the father of modern computing.„ Difference Engine- Steam Powered/ Locomotive sized invention. (Gave up after 10 yrs.) <p>Analytical Engine - First programmable Computer. (He died before completion. 1830)</p>
Herman Hollerith	<ul style="list-style-type: none">„ Made a machine to tabulate the census (saved big bucks)„ Established- International Business Machines IBM„ IBM set the standard for computers

20th Century

Howard Aikin	Invented the electronic calculator-, which was considered the first digital computer. (Weighed five tons.)
John V. Atanasoff	Inventor of the digital computer.
UNIVAC	First Real Commercial Computer (1951)
BASIC	Beginners All-Purpose Symbolic Instruction Code 1965
ARPANET	Linked four universities- ancestor to today's Internet . 1969

Dr. Ted Hoff	INTEL - 4004 microprocessor - became big business and small computers became affordable.
Steve Wozniak /Steve Jobs	First Apple Computer 1976
VisiCalc	Produced the first spreadsheet in 1979.
IBM enters PC era in 1981	<ul style="list-style-type: none"> ✓ IBM wanted to ship its first PC within the year so they contracted Bill Gates to create the operating system- MS-DOS for the PC ✓ IBM did not take exclusive rights to MS-DOS so Bill Gates sold his Operating System to other vendors making him the richest man in the world.
Intel 80486	First 1,000,000-transistor computer. Processed at 15 MIPS (Millions of instructions per second)
Xerox	Produced the first GUI (graphical user interface) with pull down menus.
Douglas Engelbart Gordon Moore	Created the X/Y Position Locator (today's Mouse) Moore's Law- Computer Speeds double and prices drop every 18 months.
George Boole	Boolean Algebra (All equations evaluate to either true or false.)

Computers by Generation

- First - Vacuum Tubes
Symbolic languages
- Second - Transistors replaced Vacuum Tubes
Auxiliary Storage
- Third - Integrated Circuits
Minicomputers
- Fourth- Large scale integrated Circuits
Microprocessor

Microcomputer

The 3 Main Parts of the Computer

CPU

Central Processing Unit, Microprocessor, Brain

Intel by generation-

- 4004 first microprocessor invented by Dr. Ted Hoff.
- 8088- First microprocessor for a PC,
- 80286-AT,
- 80386,

- 80486,
- Pentium
- 1.2 Gigahertz 1.2 Billion clock cycles per second
- Around 15 Teraflops the fastest

MEMORY

RAM - Random Access Memory - Forgetful
 ROM - Read Only Memory - Not Forgetful

Terms:

Bit -	On/Off switch
Binary -	Base 2 system
Byte -	8 bits
Nyble -	Half of a byte
1K -	1024 bytes
1 Megabyte	1 Million bytes
1 Gigabyte	1 Billion bytes
1 Terabyte	1 Trillion bytes
1 Nanosecond	1 Billionth of a second

I/O Input Output

Peripheral - Any device serving an I/O function
 Input devices - Mice, Scanners, CD ROMs, DVD
 Output devices - Printers, Monitors, Speakers
 Both Input and Output - Modems, Disk Drives, Hard Drives, Touch Screen Mor
 CD-RW