

Essay name :Computer

Register number : W1

Word Weight Value : 33

Grammatical Score : 45

Total Score : 78

Grammatical Errors :

Line 1, column 9, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

Computer A computer is a machine that can be inst...

^^

Line 2, column 95, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...y out sequences of arithmetic or logical operations automatically via computer pr...

^^

Line 3, column 95, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...ern computers have the ability to follow generalized sets of operations, called p...

^^

Line 4, column 95, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

... programs enable computers to perform an extremely wide range of tasks. A "comple...

^^

Line 5, column 34, Rule ID: EN\_QUOTES[1]

Message: Use a smart opening quote here: 'â€œ'.

Suggestion: â€œ

...rm an extremely wide range of tasks. A "complete" computer including the hardwar...

^

Line 5, column 43, Rule ID: EN\_QUOTES[2]

Message: Use a smart closing quote here: 'â€•'.

Suggestion: â€•

...tremely wide range of tasks. A "complete" computer including the hardware, the op...

^

Line 5, column 98, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...uding the hardware, the operating system (main software), and peripheral equipmen...

^^

Line 6, column 65, Rule ID: EN\_QUOTES[1]

Message: Use a smart opening quote here: 'â€œ'.

Suggestion: â€œ

...ipheral equipment required and used for "full" operation can be referred to as a...

^

Line 6, column 70, Rule ID: EN\_QUOTES[2]

Message: Use a smart closing quote here: 'â€•'.

Suggestion: â€•

...al equipment required and used for "full" operation can be referred to as a comp...

^

Line 6, column 103, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...r "full" operation can be referred to as a computer system. This term may as well...

^^

Line 7, column 97, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...roup of computers that are connected and work together, in particular a computer ...

^^

Line 8, column 99, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...r cluster. Computers are used as control systems for a wide variety of industrial...

^^

Line 9, column 100, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...es. This includes simple special purpose devices like microwave ovens and remote ...

^^

Line 10, column 96, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...ry devices such as industrial robots and computer-aided design, and also general ...

^^

Line 11, column 99, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...ke personal computers and mobile devices such as smart phones. The Internet is ru...

^^

Line 12, column 101, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...t connects hundreds of millions of other computers and their users. Early compu...

^^

Line 13, column 28, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...ns of other computers and their users. Early computers were only conceived as c...

^^

Line 14, column 95, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...ices. Since ancient times, simple manual devices like the abacus aided people in ...

^^

Line 15, column 101, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...Early in the Industrial Revolution, some mechanical devices were built to automat...

^^

Line 16, column 103, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...such as guiding patterns for looms. More sophisticated electrical machines did sp...

^^

Line 17, column 39, Rule ID: DID\_BASEFORM[1]

Message: The verb 'did' requires the base form of the verb: 'specialize'

Suggestion: specialize

... sophisticated electrical machines did specialized analog calculations in the early 20th c...

~~~~~

Line 17, column 107, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...ons in the early 20th century. The first digital electronic calculating machines ...

^^

Line 18, column 100, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...ng World War II. The first semiconductor transistors in the late 1940s were follo...

^^

Line 19, column 52, Rule ID: MORFOLOGIK\_RULE\_EN\_US

Message: Possible spelling mistake found

Suggestion: silicon based

... in the late 1940s were followed by the siliconbased MOSFET (MOS transistor) and monolithic ...

~~~~~

Line 19, column 103, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...d MOSFET (MOS transistor) and monolithic integrated circuit (IC) chip technologie...

^^

Line 20, column 99, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...s, leading to the microprocessor and the microcomputer revolution in the 1970s. T...

^^

Line 21, column 40, Rule ID: ENGLISH\_WORD\_REPEAT\_BEGINNING\_RULE

Message: Three successive sentences begin with the same word. Reword the sentence or use a thesaurus to find a synonym.

... microcomputer revolution in the 1970s. The speed, power and versatility of compute...

^^^

Line 21, column 95, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...r and versatility of computers have been increasing dramatically ever since then,...

^^

Line 22, column 99, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...or counts increasing at a rapid pace (as predicted by Moore's law), leading to th...

^^

Line 23, column 96, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...ution during the late 20th to early 21st centuries. Conventionally, a modern compu...

^^

Line 24, column 11, Rule ID: SENTENCE\_WHITESPACE

Message: Add a space between sentences

Suggestion: Conventionally

... the late 20th to early 21st centuries. Conventionally, a modern computer consists of at least...

^^^^^^^^^^

Line 24, column 101, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...east one processing element, typically a central processing unit (CPU) in the for...

^^

Line 25, column 48, Rule ID: MORFOLOGIK\_RULE\_EN\_US

Message: Possible spelling mistake found

... processing unit (CPU) in the form of a metaloxide-semiconductor (MOS) microprocessor, along with some ...

^^^^^^^^^^^^^^^^^^^^

Line 25, column 100, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...emiconductor (MOS) microprocessor, along with some type of computer memory, typic...

^^

Line 26, column 92, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...miconductor memory chips. The processing element carries out arithmetic and logic...

^^

Line 27, column 104, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...quencing and control unit can change the order of operations in response to store...

^^

Line 28, column 96, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...Peripheral devices include input devices (keyboards, mice, joystick, etc.), outpu...

^^

Line 29, column 102, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...reens, printers, etc.), and input/output devices that perform both functions (e.g...

^^

Line 30, column 95, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...a touchscreen). Peripheral devices allow information to be retrieved from an exte...

^^

Line 31, column 99, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...ey enable the result of operations to be saved and retrieved. First computing dev...

^^

Line 32, column 96, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...bage, an English mechanical engineer and polymath, originated the concept of a pr...



^^

Line 33, column 77, Rule ID: EN\_UNPAIRED\_BRACKETS

Message: Unpaired symbol: '"' seems to be missing

...a programmable computer. Considered the "father of the computer", he conceptuali...

^

Line 33, column 77, Rule ID: EN\_QUOTES[1]

Message: Use a smart opening quote here: 'â€œ'.

Suggestion: â€œ

...a programmable computer. Considered the "father of the computer", he conceptuali...

^

Line 33, column 91, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

... computer. Considered the "father of the computer", he conceptualized and invente...

^^

Line 34, column 9, Rule ID: EN\_UNPAIRED\_BRACKETS

Message: Unpaired symbol: 'â€œ' seems to be missing

... Considered the "father of the computer", he conceptualized and invented the fir...

^

Line 35, column 103, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

... to aid in navigational calculations, in 1833 he realized that a much more genera...

^^

Line 36, column 54, Rule ID: MORFOLOGIK\_RULE\_EN\_US

Message: Possible spelling mistake found

Suggestion: Analytic; Analytically; Analogical

...zed that a much more general design, an Analytical Engine, was possible. The input of pro...

^^^^^^^^

Line 36, column 99, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...tical Engine, was possible. The input of programs and data was to be provided to ...

^^

Line 37, column 98, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...unched cards, a method being used at the time to direct mechanical looms such as ...

^^

Line 38, column 96, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...om. For output, the machine would have a printer, a curve plotter and a bell. The...

^^

Line 39, column 102, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...e able to punch numbers onto cards to be read in later. The Engine incorporated a...

^^

Line 40, column 207, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...st design for a general-purpose computer that could be described in modern terms ...

^^

Line 41, column 102, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...nalog computers During the first half of the 20th century, many scientific comput...

^^

Line 42, column 96, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...met by increasingly sophisticated analog computers, which used a direct mechanica...

^^

Line 43, column 92, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...ical model of the problem as a basis for computation. However, these were not pro...

^^

Line 44, column 100, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...ally lacked the versatility and accuracy of modern digital computers. The first m...

^^

Line 45, column 102, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

... was a tide-predicting machine, invented by Sir William Thomson in 1872. The diff...

^^

Line 46, column 50, Rule ID: MORFOLOGIK\_RULE\_EN\_US

Message: Possible spelling mistake found

Suggestion: analyses; analyzer

...lliam Thomson in 1872. The differential analyser, a mechanical analog computer designed ...

^^^^^^

Line 46, column 100, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...a mechanical analog computer designed to solve differential equations by integrat...

^^

Line 47, column 99, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...d-disc mechanisms, was conceptualized in 1876 by James Thomson, the brother of th...

^^

Line 48, column 92, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...us Lord Kelvin. Vacuum tubes and digital electronic circuits Purely electronic ci...

^^

Line 49, column 90, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...ments soon replaced their mechanical and electromechanical equivalents, at the sa...

^^

Line 50, column 1, Rule ID: MORFOLOGIK\_RULE\_EN\_US

Message: Possible spelling mistake found

...nts soon replaced their mechanical and electromechanical equivalents, at the same time that digi...

~~~~~

Line 50, column 103, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...alculation replaced analog. The engineer Tommy Flowers, working at the Post Offic...

^^

Line 51, column 100, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...in London in the 1930s, began to explore the possible use of electronics for the ...

^^

Line 52, column 100, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

... Experimental equipment that he built in 1934 went into operation five years late...

^^

Line 53, column 103, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...n of the telephone exchange network into an electronic data processing system, us...

^^

Line 54, column 95, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...of vacuum tubes. In the US, John Vincent Atanasoff and Clifford E. Berry of Iowa ...

^^

Line 55, column 1, Rule ID: MORFOLOGIK\_RULE\_EN\_US

Message: Possible spelling mistake found

... vacuum tubes. In the US, John Vincent Atanasoff and Clifford E. Berry of Iowa State Uni...

~~~~~

Line 55, column 83, Rule ID: MORFOLOGIK\_RULE\_EN\_US

Message: Possible spelling mistake found

...ate University developed and tested the Atanasoff-Berry Computer (ABC) in 1942, the first...

~~~~~

Line 55, column 98, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...developed and tested the Atanasoff-Berry Computer (ABC) in 1942, the first "autom...

^^

Line 56, column 35, Rule ID: EN\_QUOTES[1]

Message: Use a smart opening quote here: 'â€œ'.

Suggestion: â€œ

...erry Computer (ABC) in 1942, the first "automatic electronic digital computer". ...

^

Line 56, column 73, Rule ID: EN\_QUOTES[2]

Message: Use a smart closing quote here: 'â€•'.

Suggestion: â€•

...t "automatic electronic digital computer". This design was also all- electronic a...

^

Line 57, column 102, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...ixed in a mechanically rotating drum for memory. Modern computers Concept of mode...

^^

Line 58, column 93, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...The principle of the modern computer was proposed by Alan Turing in his seminal 1...

^^

Line 59, column 55, Rule ID: MORFOLOGIK\_RULE\_EN\_US

Message: Possible spelling mistake found

Suggestion: Commutable

...an Turing in his seminal 1936 paper, On Computable Numbers. Turing proposed a simple devi...

~~~~~

Line 59, column 99, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...utable Numbers. Turing proposed a simple device that he called "Universal Computi...

^^

Line 60, column 23, Rule ID: EN\_QUOTES[1]

Message: Use a smart opening quote here: 'â€œ'.

Suggestion: â€œ

...roposed a simple device that he called "Universal Computing machine" and that is...

^

Line 60, column 51, Rule ID: EN\_QUOTES[2]

Message: Use a smart closing quote here: 'â€•'.

Suggestion: â€•

...t he called "Universal Computing machine" and that is now known as a universal Tu...

^

Line 60, column 96, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

... that is now known as a universal Turing machine. He proved that such a machine i...

^^

Line 61, column 81, Rule ID: MORFOLOGIK\_RULE\_EN\_US

Message: Possible spelling mistake found

Suggestion: commutable

...s capable of computing anything that is computable by executing instructions (program) st...

^^^^^^^^

Line 61, column 94, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...computing anything that is computable by executing instructions (program) stored ...

^^

Line 62, column 94, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...wing the machine to be programmable. The fundamental concept of Turing's design i...

^^

Line 63, column 103, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace



Suggestion:

...where all the instructions for computing are stored in memory. Von Neumann acknow...

^^

Line 64, column 23, Rule ID: MORFOLOGIK\_RULE\_EN\_US

Message: Possible spelling mistake found

Suggestion: On; Won; Non; Son; Van; Ton; Ion; Jon; Con; Avon; Vow; Mon; Lon; VOA; Eon; Ron; Don; Hon; ON; Vol; Yon; V on

...ns for computing are stored in memory. Von Neumann acknowledged that the central c...

^^

Line 64, column 27, Rule ID: MORFOLOGIK\_RULE\_EN\_US

Message: Possible spelling mistake found

Suggestion: Newman

...or computing are stored in memory. Von Neumann acknowledged that the central concept o...

^^^^^^

Line 64, column 95, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...e central concept of the modern computer was due to this paper. Turing machines a...

^^

Line 65, column 94, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...y a central object of study in theory of computation. Except for the limitations ...

^^

Line 66, column 100, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...nite memory stores, modern computers are said to be Turing-complete, which is to ...

^^

Line 67, column 102, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...thm execution capability equivalent to a universal Turing machine. Stored program...

^^

Line 68, column 100, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...achines had fixed programs. Changing its function required the re-wiring and re-s...

^^

Line 69, column 96, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...he machine.[30] With the proposal of the storedprogram computer this changed. A s...

^^

Line 70, column 1, Rule ID: MORFOLOGIK\_RULE\_EN\_US

Message: Possible spelling mistake found

Suggestion: stored program

... machine.[30] With the proposal of the storedprogram computer this changed. A stored-program...

~~~~~

Line 70, column 97, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...mputer includes by design an instruction set and can store in memory a set of ins...

^^

Line 71, column 104, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...hat details the computation. Transistors Compared to vacuum tubes, transistors ha...

^^

Line 72, column 101, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...they are smaller, and require less power than vacuum tubes, so give off less heat...

^^

Line 73, column 99, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...tors were much more reliable than vacuum tubes and had longer, indefinite, servic...

^^

Line 74, column 105, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...omputers could contain tens of thousands of binary logic circuits in a relatively...

^^

Line 75, column 108, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...rly junction transistors were relatively bulky devices that were difficult to man...

^^

Line 76, column 101, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...roduction basis, which limited them to a number of specialised applications. Inte...

^^

Line 77, column 11, Rule ID: MORFOLOGIK\_RULE\_EN\_US

Message: Possible spelling mistake found

Suggestion: specialized

...sis, which limited them to a number of specialised applications. Integrated circuits The i...

^^^^^^^^

Line 77, column 101, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...idea of the integrated circuit was first conceived by a radar scientist working f...

^^

Line 78, column 93, Rule ID: MORFOLOGIK\_RULE\_EN\_US

Message: Possible spelling mistake found

Suggestion: Defense

... Radar Establishment of the Ministry of Defence, Geoffrey W.A. Dummer. Dummer presente...

^^^^^^

Line 78, column 101, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...stablishment of the Ministry of Defence, Geoffrey W.A. Dummer. Dummer presented t...

^^

Line 79, column 15, Rule ID: MORFOLOGIK\_RULE\_EN\_US

Message: Possible spelling mistake found

Suggestion: Summer; Drummer; Dimmer; Hummer; Bummer; Dumber; Dumper; Mummer; Rummer

...the Ministry of Defence, Geoffrey W.A. Dummer. Dummer presented the first public desc...

~~~~~

Line 79, column 23, Rule ID: MORFOLOGIK\_RULE\_EN\_US

Message: Possible spelling mistake found

Suggestion: Summer; Drummer; Dimmer; Hummer; Bummer; Dumber; Dumper; Mummer; Rummer

...stry of Defence, Geoffrey W.A. Dummer. Dummer presented the first public description ...

~~~~~

Line 79, column 100, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...cription of an integrated circuit at the Symposium on Progress in Quality Electro...

^^

Line 80, column 94, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...s in Washington, D.C. on 7 May 1952. The development of the MOS integrated circui...

^^

Line 81, column 199, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

... computers. While the subject of exactly which device was the first microprocesso...

^^

Line 82, column 103, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...ly due to lack of agreement on the exact definition of the term "microprocessor",...

^^

Line 83, column 24, Rule ID: EN\_QUOTES[1]

Message: Use a smart opening quote here: 'â€œ'.

Suggestion: â€œ

...nt on the exact definition of the term "microprocessor", it is largely undispute...

^

Line 83, column 39, Rule ID: EN\_QUOTES[2]

Message: Use a smart closing quote here: 'â€•'.

Suggestion: â€•

... definition of the term "microprocessor", it is largely undisputed that the firs...

^

Line 83, column 108, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...hat the first single-chip microprocessor was the Intel 4004, [88] designed and re...

^^

Line 84, column 60, Rule ID: MORFOLOGIK\_RULE\_EN\_US

Message: Possible spelling mistake found

Suggestion: Fagin; Fagging

... [88] designed and realized by Federico Faggin with his silicon-gate MOS IC technolog...

~~~~~

Line 84, column 95, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...rico Faggin with his silicon-gate MOS IC technology,[86] along with Ted Hoff, Mas...

^^

Line 85, column 11, Rule ID: COMMA\_PARENTHESIS\_WHITESPACE

Message: Put a space after the comma

Suggestion: , [

...with his silicon-gate MOS IC technology,[86] along with Ted Hoff, Masatoshi Shima...

^^

Line 85, column 38, Rule ID: MORFOLOGIK\_RULE\_EN\_US

Message: Possible spelling mistake found

...C technology,[86] along with Ted Hoff, Masatoshi Shima and Stanley Mazor at Intel. [89][...

^^^^^^

Line 85, column 48, Rule ID: MORFOLOGIK\_RULE\_EN\_US

Message: Possible spelling mistake found

Suggestion: Shiva; Shim; Shims; Shi ma

...ogy,[86] along with Ted Hoff, Masatoshi Shima and Stanley Mazor at Intel. [89][90] In...

^^^^

Line 85, column 66, Rule ID: MORFOLOGIK\_RULE\_EN\_US

Message: Possible spelling mistake found

Suggestion: Major; Mayor; Manor; Razor

...h Ted Hoff, Masatoshi Shima and Stanley Mazor at Intel. [89][90] In the early 1970s,...

^^^^

Line 85, column 103, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...ey Mazor at Intel. [89][90] In the early 1970s, MOS IC technology enabled the int...

^^

Line 86, column 103, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...10,000 transistors on a single chip.[59] System on a Chip (SoCs) are complete com...

^^

Line 87, column 101, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...p (or chip) the size of a coin.[91] They may or may not have integrated RAM and f...

^^

Line 88, column 98, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...ot integrated, The RAM is usually placed directly above (known as Package on pack...

^^

Line 89, column 102, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

... opposite side of the circuit board) the SoC, and the flash memory is usually pla...

^^

Line 90, column 106, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

..., this all done to improve data transfer speeds, as the data signals don't have t...

^^

Line 91, column 101, Rule ID: WHITESPACE\_RULE



Message: Possible typo: you repeated a whitespace

Suggestion:

...ces. Since ENIAC in 1945, computers have advanced enormously, with modern SoCs (S...

^^

Line 92, column 98, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...agon 865) being the size of a coin while also being hundreds of thousands of time...

^^

Line 93, column 105, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...AC, integrating billions of transistors, and consuming only a few watts of power....

^^

Line 94, column 98, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...e computer has four main components: the arithmetic logic unit (ALU), the control...

^^

Line 95, column 106, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...e input and output devices (collectively termed I/O). These parts are interconnec...

^^

Line 96, column 100, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

... made of groups of wires. Inside each of these parts are thousands to trillions o...

^^

Line 97, column 107, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...s which can be turned off or on by means of an electronic switch. Each circuit re...

^^

Line 98, column 110, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

... of information so that when the circuit is on it represents a "1", and when off ...

^^

Line 99, column 23, Rule ID: EN\_QUOTES[1]

Message: Use a smart opening quote here: 'â€œ'.

Suggestion: â€œ

...when the circuit is on it represents a "1", and when off it represents a "0" (in...

^

Line 99, column 25, Rule ID: EN\_QUOTES[2]

Message: Use a smart closing quote here: 'â€•'.

Suggestion: â€•

...en the circuit is on it represents a "1", and when off it represents a "0" (in p...

^

Line 99, column 57, Rule ID: EN\_QUOTES[1]

Message: Use a smart opening quote here: 'â€œ'.

Suggestion: â€œ

...nts a "1", and when off it represents a "0" (in positive logic representation). T...

^

Line 99, column 59, Rule ID: EN\_QUOTES[2]

Message: Use a smart closing quote here: 'â€•'.

Suggestion: â€•

...s a "1", and when off it represents a "0" (in positive logic representation). The...

^

Line 99, column 109, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...tive logic representation). The circuits are arranged in logic gates so that one ...

^^

Line 100, column 97, Rule ID: ENGLISH\_WORD\_REPEAT\_RULE

Message: Possible typo: you repeated a word

Suggestion: of

...ircuits may control the state of one or more of the other circuits. Input devices When...

^^^^^^

Line 100, column 104, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

... may control the state of one or more of the other circuits. Input devices When u...

^^

Line 101, column 103, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...t to the computer with the help of input devices, the data is processed and sent ...

^^

Line 102, column 101, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...he input devices may be hand-operated or automated. The act of processing is main...

^^

Line 103, column 101, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...CPU. Some examples of input devices are: Computer keyboardb'\xef\x82\x82' Digital camerab'\xef\x82\x82' Dig...

^^^

Line 104, column 10, Rule ID: MORFOLOGIK\_RULE\_EN\_US

Message: Possible spelling mistake found

Suggestion: keyboard; keyboards

...amples of input devices are: Computer keyboardb'\xef\x82\x82' Digital camerab'\xef\x82\x82' Digital videob'\xef\x82\x82' Gr

~~~~~

Line 104, column 19, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

... input devices are: Computer keyboardb'\xef\x82\x82' Digital camerab'\xef\x82\x82' Digital videob'\xef\x82\x82' Graphic...

^^

Line 104, column 29, Rule ID: MORFOLOGIK\_RULE\_EN\_US

Message: Possible spelling mistake found

Suggestion: camera; cameras

...ices are: Computer keyboardb'\xef\x82\x82' Digital camerab'\xef\x82\x82' Digital videob'\xef\x82\x82' Graphics tabletb'\xef\x82\x82'

~~~~~

Line 104, column 36, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...e: Computer keyboard Digital camerab Digital videob Graphics tabletb

^^

Line 104, column 46, Rule ID: MORFOLOGIK\_RULE\_EN\_US

Message: Possible spelling mistake found

Suggestion: video; videos

...ter keyboard Digital camerab Digital videob Graphics tabletb Image scanner

^^^^

Line 104, column 52, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...yboard Digital camerab Digital videob Graphics tabletb Image scanner

^^

Line 104, column 63, Rule ID: MORFOLOGIK\_RULE\_EN\_US

Message: Possible spelling mistake found

Suggestion: tablet; tablets

...gital camerab Digital videob Graphics tabletb Image scannerb Joystickb

^^^^^

Line 104, column 70, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...amerab Digital videob Graphics tabletb Image scannerb Joystickb

^^

Line 104, column 78, Rule ID: MORFOLOGIK\_RULE\_EN\_US

Message: Possible spelling mistake found

Suggestion: scanner; scanners

...Digital videob'\xef\x82\xbf' Graphics tabletb'\xef\x82\xbf' Image scannerb'\xef\x82\xbf' Joystickb'\xef\x82\xbf' Microphoneb'\xef\x82\xbf'

~~~~~

Line 104, column 86, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...videob'\xef\x82\xbf' Graphics tabletb'\xef\x82\xbf' Image scannerb'\xef\x82\xbf' Joystickb'\xef\x82\xbf' Microphoneb'\xef\x82\xbf'

^^

Line 104, column 88, Rule ID: MORFOLOGIK\_RULE\_EN\_US

Message: Possible spelling mistake found

Suggestion: Joystick; Joysticks

...deob'\xef\x82\xbf' Graphics tabletb'\xef\x82\xbf' Image scannerb'\xef\x82\xbf' Joystickb'\xef\x82\xbf' Microphoneb'\xef\x82\xbf'

~~~~~

Line 104, column 97, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...phics tabletb'\xef\x82\xbf' Image scannerb'\xef\x82\xbf' Joystickb'\xef\x82\xbf' Microphoneb'\xef\x82\xbf' Mouseb'\xef\x82\xbf'

^^

Line 105, column 1, Rule ID: MORFOLOGIK\_RULE\_EN\_US

Message: Possible spelling mistake found

Suggestion: Microphone; Microphones

...cs tabletb'\xef\x82\xbf' Image scannerb'\xef\x82\xbf' Joystickb'\xef\x82\xbf' Microphoneb'\xef\x82\xbf' Mouseb'\xef\x82\xbf'

~~~~~

Line 105, column 12, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

... Image scannerb'\xef\x82\xbf' Joystickb'\xef\x82\xbf' Microphoneb'\xef\x82\xbf' Mouseb'\xef\x82\xbf' Overlay keyboardb'\xef\x82\xbf'

^^

Line 105, column 14, Rule ID: MORFOLOGIK\_RULE\_EN\_US

Message: Possible spelling mistake found

Suggestion: Mouse; Mouser; Mouses; Moused

...mage scannerb'\xef\x82\xbf' Joystickb'\xef\x82\xbf' Microphoneb'\xef\x82\xbf' Mouseb'\xef\x82\xbf' Overlay keyboardb'\xef\x82\xbf'

~~~~~

Line 105, column 20, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...cannerb'\xef\x82\xbf' Joystickb'\xef\x82\xbf' Microphoneb'\xef\x82\xbf' Mouseb'\xef\x82\xbf' Overlay keyboardb'\xef\x82\xbf'

^^

Line 105, column 30, Rule ID: MORFOLOGIK\_RULE\_EN\_US

Message: Possible spelling mistake found

Suggestion: keyboard; keyboards

...oystickb'\xef\x82\xbf' Microphoneb'\xef\x82\xbf' Mouseb'\xef\x82\xbf' Overlay keyboardb'\xef\x82\xbf' Real-time clockb'\xef\x82\xbf'

~~~~~

Line 105, column 39, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

... Microphoneb'\xef\x82\xbf' Mouseb'\xef\x82\xbf' Overlay keyboardb'\xef\x82\xbf' Real-time clockb'\xef\x82\xbf' Trackballb'\xef\x82\xbf'

^^

Line 105, column 51, Rule ID: MORFOLOGIK\_RULE\_EN\_US

Message: Possible spelling mistake found

Suggestion: clock; clocks

...b'\xef\x82\x82' Mouseb'\xef\x82\x82' Overlay keyboardb'\xef\x82\x82' Real-time clockb'\xef\x82\x82' Trackballb'\xef\x82\x82'

~~~~~

Line 105, column 57, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...seb'\xef\x82\x82' Overlay keyboardb'\xef\x82\x82' Real-time clockb'\xef\x82\x82' Trackballb'\xef\x82\x82' Touchscreenb'\xef\x82\x82'

^^

Line 105, column 59, Rule ID: MORFOLOGIK\_RULE\_EN\_US

Message: Possible spelling mistake found

Suggestion: Trackball; Trackballs

...b'\xef\x82\x82' Overlay keyboardb'\xef\x82\x82' Real-time clockb'\xef\x82\x82' Trackballb'\xef\x82\x82' Touchscreenb'\xef\x82\x82'

~~~~~

Line 105, column 69, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

... keyboardb'\xef\x82\x82' Real-time clockb'\xef\x82\x82' Trackballb'\xef\x82\x82' Touchscreenb'\xef\x82\x82' Output devices

^^

Line 105, column 71, Rule ID: MORFOLOGIK\_RULE\_EN\_US

Message: Possible spelling mistake found

Suggestion: Touchscreen; Touchscreens

...eyboardb'\xef\x82\x82' Real-time clockb'\xef\x82\x82' Trackballb'\xef\x82\x82' Touchscreenb'\xef\x82\x82' Output devices T

~~~~~

Line 105, column 98, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

... Trackballb'\xef\x82\x82' Touchscreenb'\xef\x82\x82' Output devices The means through which computer gives o...



^^

Line 106, column 92, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...nown as output devices. Some examples of output devices are: Computer monitorb'\xef\x82\xbf' ...

^^

Line 107, column 20, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...s. Some examples of output devices are: Computer monitorb'\xef\x82\xbf' Printerb'\xef\x82\xbf' PC speakerb'\xef\x82\xbf'.

^^

Line 107, column 31, Rule ID: MORFOLOGIK\_RULE\_EN\_US

Message: Possible spelling mistake found

Suggestion: monitor; monitors; monitory

...mples of output devices are: Computer monitorb'\xef\x82\xbf' Printerb'\xef\x82\xbf' PC speakerb'\xef\x82\xbf' Projectorb'\xef\x82\xbf'.

~~~~~

Line 107, column 39, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

... output devices are: Computer monitorb'\xef\x82\xbf' Printerb'\xef\x82\xbf' PC speakerb'\xef\x82\xbf' Projectorb'\xef\x82\xbf'.

^^

Line 107, column 41, Rule ID: MORFOLOGIK\_RULE\_EN\_US

Message: Possible spelling mistake found

Suggestion: Printer; Printers

...output devices are: Computer monitorb'\xef\x82\xbf' Printerb'\xef\x82\xbf' PC speakerb'\xef\x82\xbf' Projectorb'\xef\x82\xbf'.

~~~~~

Line 107, column 49, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...evices are: Computer monitorb'\xef\x82\x82' Printerb'\xef\x82\x82' PC speakerb'\xef\x82\x82' Projectorb'\xef\x82\x82' Sound

^^

Line 107, column 54, Rule ID: MORFOLOGIK\_RULE\_EN\_US

Message: Possible spelling mistake found

Suggestion: speaker; speakers

...s are: Computer monitorb'\xef\x82\x82' Printerb'\xef\x82\x82' PC speakerb'\xef\x82\x82' Projectorb'\xef\x82\x82' Sound card

^^^^^^

Line 107, column 62, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...Computer monitorb'\xef\x82\x82' Printerb'\xef\x82\x82' PC speakerb'\xef\x82\x82' Projectorb'\xef\x82\x82' Sound cardb'\xef\x82\x82'

^^

Line 107, column 64, Rule ID: MORFOLOGIK\_RULE\_EN\_US

Message: Possible spelling mistake found

Suggestion: Projector; Projectors

...mputer monitorb'\xef\x82\x82' Printerb'\xef\x82\x82' PC speakerb'\xef\x82\x82' Projectorb'\xef\x82\x82' Sound cardb'\xef\x82\x82'

^^^^^^

Line 107, column 74, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...itorb'\xef\x82\x82' Printerb'\xef\x82\x82' PC speakerb'\xef\x82\x82' Projectorb'\xef\x82\x82' Sound cardb'\xef\x82\x82' Video

^^

Line 107, column 82, Rule ID: MORFOLOGIK\_RULE\_EN\_US

Message: Possible spelling mistake found

Suggestion: card; cards

...rinterb'\xef\x82\x82' PC speakerb'\xef\x82\x82' Projectorb'\xef\x82\x82' Sound cardb'\xef\x82\x82' Video cardb'\xef\x82\x82'

~~~~~

Line 107, column 87, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...rb'\xef\x82\x82' PC speakerb'\xef\x82\x82' Projectorb'\xef\x82\x82' Sound cardb'\xef\x82\x82' Video cardb'\xef\x82\x82' Con

^^

Line 107, column 95, Rule ID: MORFOLOGIK\_RULE\_EN\_US

Message: Possible spelling mistake found

Suggestion: card; cards

...peakerb'\xef\x82\x82' Projectorb'\xef\x82\x82' Sound cardb'\xef\x82\x82' Video cardb'\xef\x82\x82' Control unit The control u

~~~~~

Line 107, column 100, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...rb'\xef\x82\x82' Projectorb'\xef\x82\x82' Sound cardb'\xef\x82\x82' Video cardb'\xef\x82\x82' Control unit The control unit (of

^^

Line 108, column 96, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...ystem or central controller) manages the computer's various components; it reads ...

^^

Line 109, column 91, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...rets (decodes) the program instructions, transforming them into control signals t...

^^

Line 110, column 105, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

... of the computer.[95] Control systems in advanced computers may change the order ...

^^

Line 111, column 98, Rule ID: SENTENCE\_WHITESPACE

Message: Add a space between sentences

Suggestion: A

...ome instructions to improve performance.A key component common to all CPUs is th...

^

Line 111, column 99, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...me instructions to improve performance.A key component common to all CPUs is the ...

^^

Line 112, column 29, Rule ID: MORFOLOGIK\_RULE\_EN\_US

Message: Possible spelling mistake found

Suggestion: CPU; Opus; Pus; Cps; CPU s

...formance.A key component common to all CPUs is the program counter, a special memor...

^^^

Line 112, column 97, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

... a special memory cell (a register) that keeps track of which location in memory ...

^^

Line 113, column 81, Rule ID: SENTENCE\_WHITESPACE

Message: Add a space between sentences

Suggestion: The

...the next instruction is to be read from.The control system's function is as follow...

^^^

Line 113, column 101, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

... is to be read from.The control system's function is as followsâ€”note that this is...

^^

Line 114, column 98, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...cription, and some of these steps may be performed concurrently or in a different...

^^

Line 115, column 102, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...he type of CPU: 1. Read the code for the next instruction from the cell indicated...

^^

Line 116, column 102, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...er. 2. Decode the numerical code for the instruction into a set of commands or si...

^^

Line 117, column 102, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

... other systems. 3. Increment the program counter so it points to the next instruc...

^^

Line 118, column 107, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...a the instruction requires from cells in memory (or perhaps from an input device)...

^^

Line 119, column 104, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...required data is typically stored within the instruction code. 5. Provide the nec...

^^

Line 120, column 109, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...ister. 6. If the instruction requires an ALU or specialized hardware to complete,...

^^

Line 122, column 103, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...ly) just another set of memory cells, it can be changed by calculations done in t...

^^

Line 123, column 98, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...0 to the program counter would cause the next instruction to be read from a place...

^^

Line 124, column 99, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...ther down the program. Instructions that modify the program counter are often kno...

^^

Line 125, column 47, Rule ID: EN\_QUOTES[1]

Message: Use a smart opening quote here: 'â€œ'.

Suggestion: â€œ

... the program counter are often known as "jumps" and allow for loops (instructions...

^

Line 125, column 53, Rule ID: EN\_QUOTES[2]

Message: Use a smart closing quote here: 'â€•'.

Suggestion: â€•

...rogram counter are often known as "jumps" and allow for loops (instructions that ...

^

Line 125, column 97, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...d allow for loops (instructions that are repeated by the computer) and often cond...

^^

Line 127, column 108, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...ocess an instruction is in itself like a short computer program, and indeed, in s...

^^

Line 128, column 99, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...PU designs, there is another yet smaller computer called a microsequencer, which ...

^^

Line 129, column 19, Rule ID: MORFOLOGIK\_RULE\_EN\_US

Message: Possible spelling mistake found

Suggestion: micro sequencer

... another yet smaller computer called a microsequencer, which runs a microcode program that ca...

^^^^^^^^^^^^

Line 129, column 100, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...ogram that causes all of these events to happen. Central processing unit (CPU) Th...

^^

Line 130, column 103, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...nd registers are collectively known as a central processing unit (CPU). Early CPU...

^^

Line 131, column 38, Rule ID: MORFOLOGIK\_RULE\_EN\_US

Message: Possible spelling mistake found



Suggestion: CPU; Opus; Pus; Cps; CPU s

...a central processing unit (CPU). Early CPUs were composed of many separate componen...

^^^

Line 131, column 60, Rule ID: NUMEROUS\_DIFFERENT[1]

Message: Use simply 'many'.

Suggestion: many

...unit (CPU). Early CPUs were composed of many separate components. Since the 1970s, CPUs have...

~~~~~

Line 131, column 95, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...d of many separate components. Since the 1970s, CPUs have typically been construc...

^^

Line 132, column 8, Rule ID: MORFOLOGIK\_RULE\_EN\_US

Message: Possible spelling mistake found

Suggestion: CPU; Opus; Pus; Cps; CPU s

... separate components. Since the 1970s, CPUs have typically been constructed on a si...

^^^

Line 132, column 93, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...gle MOS integrated circuit chip called a microprocessor. Arithmetic logic unit (A...

^^

Line 133, column 104, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...of performing two classes of operations: arithmetic and logic. The set of arithme...

^^

Line 134, column 104, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...articular ALU supports may be limited to addition and subtraction, or might inclu...

^^

Line 135, column 106, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...on, trigonometry functions such as sine, cosine, etc., and square roots. Some can...

^^

Line 136, column 99, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...hole numbers (integers) while others use floating point to represent real numbers...

^^

Line 137, column 103, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...precision. However, any computer that is capable of performing just the simplest ...

^^

Line 138, column 92, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...can be programmed to break down the more complex operations into simple steps tha...

^^

Line 139, column 100, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...herefore, any computer can be programmed to perform any arithmetic operationâ€”alth...

^^

Line 140, column 97, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...e more time to do so if its ALU does not directly support the operation. An ALU m...

^^

Line 141, column 76, Rule ID: MORFOLOGIK\_RULE\_EN\_US

Message: Possible spelling mistake found

Suggestion: Boolean; boo lean

...ALU may also compare numbers and return boolean truth values (true or false) depending...

^^^^^^

Line 141, column 96, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

... numbers and return boolean truth values (true or false) depending on whether one...

^^

Line 142, column 92, Rule ID: EN\_QUOTES[1]

Message: Use a smart opening quote here: 'â€œ'.

Suggestion: â€œ

...o, greater than or less than the other ("is 64 greater than 65?"). Logic operati...

^

Line 142, column 106, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...n or less than the other ("is 64 greater than 65?"). Logic operations involve Boo...

^^

Line 143, column 9, Rule ID: EN\_QUOTES[2]

Message: Use a smart closing quote here: 'â€•'.

Suggestion: â€•

...than the other ("is 64 greater than 65?"). Logic operations involve Boolean logi...

^

Line 143, column 99, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...R, XOR, and NOT. These can be useful for creating complicated conditional stateme...

^^

Line 144, column 60, Rule ID: MORFOLOGIK\_RULE\_EN\_US

Message: Possible spelling mistake found

Suggestion: Boolean; boo lean

...d conditional statements and processing boolean logic. Memory A computer's memory can ...

^^^^^^

Line 144, column 94, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...ssing boolean logic. Memory A computer's memory can be viewed as a list of cells ...

^^

Line 145, column 98, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...s can be placed or read. Each cell has a numbered "address" and can store a singl...

^^

Line 146, column 10, Rule ID: EN\_QUOTES[1]

Message: Use a smart opening quote here: 'â€œ'.

Suggestion: â€œ

...aced or read. Each cell has a numbered "address" and can store a single number. ...

^

Line 146, column 18, Rule ID: EN\_QUOTES[2]

Message: Use a smart closing quote here: 'â€•'.

Suggestion: â€•

...read. Each cell has a numbered "address" and can store a single number. The info...

^

Line 146, column 97, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...formation stored in memory may represent practically anything. Letters, numbers, ...

^^

Line 147, column 98, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...tructions can be placed into memory with equal ease. Since the CPU does not diffe...

^^

Line 148, column 99, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...ifferent types of information, it is the software's responsibility to give signif...

^^

Line 149, column 98, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...e memory sees as nothing but a series of numbers.In almost all modern computers, ...

^^

Line 150, column 9, Rule ID: SENTENCE\_WHITESPACE

Message: Add a space between sentences

Suggestion: In

...ees as nothing but a series of numbers.In almost all modern computers, each memor...

^^

Line 150, column 101, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...set up to store binary numbers in groups of eight bits (called a byte). A compute...

^^

Line 151, column 99, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...nd of information in memory if it can be represented numerically. Modern computer...

^^

Line 152, column 94, Rule ID: SENTENCE\_WHITESPACE

Message: Add a space between sentences

Suggestion: The

...ns or even trillions of bytes of memory. The CPU contains a special set of memory c...

^^

Line 152, column 101, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...ven trillions of bytes of memory. The CPU contains a special set of memory cells c...

^^

Line 153, column 86, Rule ID: TO\_TOO[2]

Message: Did you mean 'too'?

Suggestion: too

... registers that can be read and written to much more rapidly than the main memory...

^^

Line 153, column 106, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...be read and written to much more rapidly than the main memory area. There are typ...

^^

Line 154, column 98, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...o and one hundred registers depending on the type of CPU. Registers are used for ...

^^

Line 155, column 104, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...ded data items to avoid having to access main memory every time data is needed. A...

^^

Line 156, column 99, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...ly being worked on, reducing the need to access main memory (which is often slow ...

^^

Line 157, column 101, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...and control units) greatly increases the computer's speed.Computer main memory co...

^^

Line 158, column 18, Rule ID: SENTENCE\_WHITESPACE

Message: Add a space between sentences

Suggestion: Computer

...greatly increases the computer's speed.Computer main memory comes in two principal vari...

^^^^^^

Line 158, column 95, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...ncipal varieties random-access memory or RAM and read-only memory or ROM RAM can ...

^^

Line 159, column 96, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...tten to anytime the CPU commands it, but ROM is preloaded with data and software ...

^^



Line 160, column 8, Rule ID: MORFOLOGIK\_RULE\_EN\_US

Message: Possible spelling mistake found

Suggestion: reloaded; p reloaded

...nytime the CPU commands it, but ROM is preloaded with data and software that never chang...

~~~~~

Line 161, column 104, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...nstructions. In general, the contents of RAM are erased when the power to the com...

^^

Line 162, column 205, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...that orchestrates loading the computer's operating system from the hard disk driv...

^^

Line 163, column 97, Rule ID: ENGLISH\_WORD\_REPEAT\_BEGINNING\_RULE

Message: Three successive sentences begin with the same word. Reword the sentence or use a thesaurus to find a synonym.

...ver the computer is turned on or reset. In embedded computers, which frequently d...

^^

Line 163, column 99, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...r the computer is turned on or reset. In embedded computers, which frequently do ...

^^

Line 164, column 63, Rule ID: ALL\_OF\_THE[1]

Message: Simply use 'all the'.

Suggestion: all the

...ich frequently do not have disk drives, all of the required software may be stored in ROM...

^^^^^^

Line 164, column 98, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...ves, all of the required software may be stored in ROM. Software stored in ROM is...

^^

Line 165, column 99, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...ware, because it is notionally more like hardware than software. Flash memory blu...

^^

Line 166, column 98, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...n between ROM and RAM, as it retains its data when turned off but is also rewrita...

^^

Line 167, column 34, Rule ID: MORFOLOGIK\_RULE\_EN\_US

Message: Possible spelling mistake found

Suggestion: re writable

...s its data when turned off but is also rewritable. It is typically much slower than conve...

^^^^^^

Line 167, column 103, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...uch slower than conventional ROM and RAM however, so its use is restricted to app...

^^

Line 168, column 106, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...d is unnecessary. Input/output (I/O) I/O is the means by which a computer exchang...

^^

Line 169, column 97, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...ith the outside world.[100] Devices that provide input or output to the computer ...

^^

Line 170, column 102, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...s. [101] On a typical personal computer, peripherals include input devices like t...

^^

Line 171, column 102, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

..., and output devices such as the display and printer. Hard disk drives, floppy di...

^^

Line 172, column 105, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...sc drives serve as both input and output devices. Computer networking is another ...

^^

Line 173, column 102, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...ces are often complex computers in their own right, with their own CPU and memory...

^^

Line 174, column 102, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...ng unit might contain fifty or more tiny computers that perform the calculations ...

^^

Line 175, column 99, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...ay 3D graphics. Modern desktop computers contain many smaller computers that assi...

^^

Line 176, column 98, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...n performing I/O. A 2016-era flat screen display contains its own computer circui...

^^

Line 177, column 100, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...hile a computer may be viewed as running one gigantic program stored in its main ...

^^

Line 178, column 103, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...s it is necessary to give the appearance of running several programs simultaneous...

^^

Line 179, column 102, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...by multitasking i.e. having the computer switch rapidly between running each prog...

^^

Line 180, column 103, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

... by which this is done is with a special signal called an interrupt, which can pe...

^^

Line 181, column 101, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

... computer to stop executing instructions where it was and do something else inste...

^^

Line 182, column 95, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...ring where it was executing prior to the interrupt, the computer can return to th...

^^

Line 183, column 56, Rule ID: SENTENCE\_FRAGMENT[1]

Message: "•" at the beginning of a sentence requires a 2nd clause. Maybe a comma, question or exclamation mark is missing.  
...computer can return to that task later. If several programs are running "at the sa...

^^

Line 183, column 88, Rule ID: EN\_QUOTES[1]

Message: Use a smart opening quote here: '•'.

Suggestion: •

... later. If several programs are running "at the same time". then the interrupt g...

^

Line 183, column 105, Rule ID: EN\_QUOTES[2]

Message: Use a smart closing quote here: '•'.

Suggestion: •

...l programs are running "at the same time". then the interrupt generator might be...

^

Line 184, column 1, Rule ID: UPPERCASE\_SENTENCE\_START

Message: This sentence does not start with an uppercase letter

Suggestion: Then

...ograms are running "at the same time". then the interrupt generator might be causin...

^^^

Line 184, column 103, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...interrupts per second, causing a program switch each time. Since modern computers...

^^

Line 185, column 100, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...instructions several orders of magnitude faster than human perception, it may app...

^^

Line 186, column 97, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...ograms are running at the same time even though only one is ever executing in any...

^^

Line 187, column 104, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...thod of multitasking is sometimes termed "time-sharing" since each program is all...

^^

Line 188, column 1, Rule ID: EN\_QUOTES[1]

Message: Use a smart opening quote here: 'â€œ'.

Suggestion: â€œ

...od of multitasking is sometimes termed "time-sharing" since each program is allo...

^

Line 188, column 14, Rule ID: EN\_QUOTES[2]

Message: Use a smart closing quote here: 'â€•'.

Suggestion: â€•

...sking is sometimes termed "time-sharing" since each program is allocated a "slic...

^

Line 188, column 50, Rule ID: EN\_QUOTES[1]

Message: Use a smart opening quote here: 'â€œ'.

Suggestion: â€œ

...ring" since each program is allocated a "slice" of time in turn. Multiprocessing ...

^

Line 188, column 56, Rule ID: EN\_QUOTES[2]

Message: Use a smart closing quote here: 'â€•'.

Suggestion: â€•

...since each program is allocated a "slice" of time in turn. Multiprocessing Some ...

^

Line 188, column 95, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...e" of time in turn. Multiprocessing Some computers are designed to distribute the...

^^

Line 189, column 64, Rule ID: MORFOLOGIK\_RULE\_EN\_US

Message: Possible spelling mistake found

Suggestion: CPU; Opus; Pus; Cps; CPU s

...to distribute their work across several CPUs in a multiprocessing configuration, a ...

^^^

Line 189, column 104, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...CPUs in a multiprocessing configuration, a technique once employed only in large ...

^^

Line 190, column 96, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...chines such as supercomputers, mainframe computers and servers. Multiprocessor an...

^^



Line 191, column 43, Rule ID: MORFOLOGIK\_RULE\_EN\_US

Message: Possible spelling mistake found

...mputers and servers. Multiprocessor and multi-core (multiple CPUs on a single integrated c...

^^^^^^

Line 191, column 64, Rule ID: MORFOLOGIK\_RULE\_EN\_US

Message: Possible spelling mistake found

Suggestion: CPU; Opus; Pus; Cps; CPU s

...Multiprocessor and multi-core (multiple CPUs on a single integrated circuit) person...

^^^

Line 191, column 100, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...ple CPUs on a single integrated circuit) personal and laptop computers are now wi...

^^

Line 192, column 101, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...are being increasingly used in lower-end markets as a result. Supercomputers in p...

^^

Line 193, column 101, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

... highly unique architectures that differ significantly from the basic stored-prog...

^^

Line 194, column 98, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...and from general purpose computers. They often feature thousands of CPUs, customi...

^^

Line 195, column 28, Rule ID: MORFOLOGIK\_RULE\_EN\_US

Message: Possible spelling mistake found

Suggestion: CPU; Opus; Pus; Cps; CPU s

...uters. They often feature thousands of CPUs, customized high-speed interconnects, a...

^^^

Line 195, column 96, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...interconnects, and specialized computing hardware. Such designs tend to be useful...

^^

Line 196, column 102, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

... tasks due to the large scale of program organization required to successfully ut...

^^

Line 197, column 102, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...ilable resources at once. Supercomputers usually see usage in large-scale simulat...

^^

Line 198, column 107, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...nd cryptography applications, as well as with other so-called "embarrassingly par...

^^

Line 199, column 22, Rule ID: EN\_QUOTES[1]

Message: Use a smart opening quote here: 'â€œ'.

Suggestion: â€œ

...tions, as well as with other so-called "embarrassingly parallel" tasks. Software...

^

Line 199, column 46, Rule ID: EN\_QUOTES[2]

Message: Use a smart closing quote here: 'â€•'.

Suggestion: â€•

...other so-called "embarrassingly parallel" tasks. Software Software refers to part...

^

Line 199, column 55, Rule ID: ENGLISH\_WORD\_REPEAT\_RULE

Message: Possible typo: you repeated a word

Suggestion: Software

...called "embarrassingly parallel" tasks. Software Software refers to parts of the computer which ...

^^^^^^^^^^^^^^

Line 199, column 104, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...Software refers to parts of the computer which do not have a material form, such ...

^^

Line 200, column 102, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...otocols, etc. Software is that part of a computer system that consists of encoded...

^^

Line 201, column 98, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...omputer instructions, in contrast to the physical hardware from which the system ...

^^

Line 202, column 96, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...ter software includes computer programs, libraries and related non-executable dat...

^^

Line 203, column 200, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...puter hardware and software require each other and neither can be realistically u...

^^

Line 204, column 104, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...ftware is stored in hardware that cannot easily be modified, such as with BIOS RO...

^^

Line 205, column 99, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...patible computer, it is sometimes called "firmware". Programs The defining featur...

^^

Line 206, column 1, Rule ID: EN\_QUOTES[1]

Message: Use a smart opening quote here: 'â€œ'.

Suggestion: â€œ

...tible computer, it is sometimes called "firmware". Programs The defining feature...

^

Line 206, column 10, Rule ID: EN\_QUOTES[2]

Message: Use a smart closing quote here: 'â€•'.

Suggestion: â€•

...puter, it is sometimes called "firmware". Programs The defining feature of moder...

^

Line 206, column 96, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...puters which distinguishes them from all other machines is that they can be progr...

^^

Line 207, column 98, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

... say that some type of instructions (the program) can be given to the computer, a...

^^

Line 208, column 96, Rule ID: MORFOLOGIK\_RULE\_EN\_US

Message: Possible spelling mistake found

Suggestion: on; won; non; son; van; ton; ion; Jon; con; Avon; vow; Mon; Lon; VOA; eon; Ron; Don; Hon; ON; Son; Van; don; ho

...ess them. Modern computers based on the von Neumann architecture often have machin...

^^^

Line 208, column 99, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

... them. Modern computers based on the von Neumann architecture often have machine ...

^^

Line 209, column 1, Rule ID: MORFOLOGIK\_RULE\_EN\_US

Message: Possible spelling mistake found

Suggestion: Newman

...hem. Modern computers based on the von Neumann architecture often have machine code in...

^^^^^^

Line 209, column 99, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...f an imperative programming language. In practical terms, a computer program may ...

^^

Line 210, column 97, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...structions or extend to many millions of instructions, as do the programs for wor...

^^

Line 211, column 100, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...b browsers for example. A typical modern computer can execute billions of instruc...

^^

Line 212, column 59, Rule ID: MORFOLOGIK\_RULE\_EN\_US

Message: Possible spelling mistake found

...te billions of instructions per second (gigaflops) and rarely makes a mistake over many ...

^^^^^^

Line 212, column 101, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...gaflops) and rarely makes a mistake over many years of operation. Large computer ...

^^

Line 213, column 101, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...of several million instructions may take teams of programmers years to write, and...

^^

Line 214, column 100, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...ity of the task almost certainly contain errors. Programming language Programming...

^^

Line 215, column 99, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

... various ways of specifying programs for computers to run. Unlike natural languag...

^^

Line 216, column 92, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...ming languages are designed to permit no ambiguity and to be concise. They are pu...

^^

Line 218, column 103, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...mpiler or an assembler before being run, or translated directly at run time by an...

^^

Line 219, column 98, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...etimes programs are executed by a hybrid method of the two techniques. Machine la...

^^

Line 220, column 95, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...e assembly languages that represent them (collectively termed low-level programmi...

^^

Line 221, column 93, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...) are generally unique to the particular architecture of a computer's central pro...

^^

Line 222, column 104, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

... instance, an ARM architecture CPU (such as may be found in a smartphone or a han...

^^



Line 223, column 22, Rule ID: MORFOLOGIK\_RULE\_EN\_US

Message: Possible spelling mistake found

Suggestion: smart phone

...tecture CPU (such as may be found in a smartphone or a hand-held videogame) cannot unders...

^^^^^^

Line 223, column 48, Rule ID: MORFOLOGIK\_RULE\_EN\_US

Message: Possible spelling mistake found

Suggestion: video game

...be found in a smartphone or a hand-held videogame) cannot understand the machine language...

^^^^^^

Line 223, column 97, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...) cannot understand the machine language of an x86 CPU that might be in a PC. [10...

^^

Line 224, column 4, Rule ID: EN\_A\_VS\_AN

Message: Use 'a' instead of 'an' if the following word doesn't start with a vowel sound, e.g. 'a sentence', 'a university'

Suggestion: a

...not understand the machine language of an x86 CPU that might be in a PC. [106] Hi...

^^

Line 224, column 87, Rule ID: MORFOLOGIK\_RULE\_EN\_US

Message: Possible spelling mistake found

Suggestion: CPU; cup; CPA; CPI; CPR; CPO; CCU; cpl; cpd; Cpl; Cu; Pu; cps; cu

...torically a significant number of other cpu architectures were created and saw ext...

^^

Line 224, column 104, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...ficant number of other cpu architectures were created and saw extensive use, nota...

^^

Line 225, column 99, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...MOS Technology 6502 and 6510 in addition to the Zilog Z80. Although considerably ...

^^

Line 226, column 8, Rule ID: MORFOLOGIK\_RULE\_EN\_US

Message: Possible spelling mistake found

Suggestion: Pilot; Blog; Log; Zion; Dialog; Milo; Silo; Silos; Clog; Kilo; Kilos; Zelig; Flog; Slog; Zibo; Lilo; Zing; Zilch; Biog; Ziploc

...ology 6502 and 6510 in addition to the Zilog Z80. Although considerably easier than ...

^^^^

Line 226, column 98, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...chine language, writing long programs in assembly language is often difficult and...

^^

Line 227, column 101, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

.... Therefore, most practical programs are written in more abstract high-level prog...

^^

Line 228, column 100, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...hat are able to express the needs of the programmer more conveniently (and thereb...

^^

Line 229, column 98, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...grammer error). High level languages are usually "compiled" into machine language...

^^

Line 230, column 9, Rule ID: EN\_QUOTES[1]

Message: Use a smart opening quote here: 'â€œ'.

Suggestion: â€œ

...ror). High level languages are usually "compiled" into machine language (or some...

^

Line 230, column 18, Rule ID: EN\_QUOTES[2]

Message: Use a smart closing quote here: 'â€™'.

Suggestion: â€™

...h level languages are usually "compiled" into machine language (or sometimes int...

^

Line 230, column 100, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

... assembly language and then into machine language) using another computer program...

^^

Line 231, column 101, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...High level languages are less related to the workings of the target computer than...

^^

Line 232, column 97, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...ge, and more related to the language and structure of the problem(s) to be solved...

^^

Line 233, column 101, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...m. It is therefore often possible to use different compilers to translate the sam...

^^

Line 234, column 99, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...age program into the machine language of many different types of computer. involv...

^^

Line 235, column 1, Rule ID: NUMEROUS\_DIFFERENT[1]

Message: Use simply 'many'.

Suggestion: many

...e program into the machine language of many different types of computer. involving thousands ...

~~~~~

Line 235, column 35, Rule ID: UPPERCASE\_SENTENCE\_START

Message: This sentence does not start with an uppercase letter

Suggestion: Involving

...e of many different types of computer. involving thousands of line of code and more requ...

~~~~~

Line 235, column 103, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...of code and more require formal software methodologies. Networking and the Intern...

^^

Line 236, column 101, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...puter engineers at research institutions throughout the United States began to li...

^^

Line 237, column 93, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...puters together using telecommunications technology. The effort was funded by ARP...

^^

Line 238, column 98, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...d the computer network that resulted was called the ARPANET. The technologies tha...

^^

Line 239, column 52, Rule ID: MORFOLOGIK\_RULE\_EN\_US

Message: Possible spelling mistake found

Suggestion: Arcane; Arrant

...ARPANET. The technologies that made the Arpanet possible spread and evolved.In time, th...

~~~~~

Line 239, column 88, Rule ID: SENTENCE\_WHITESPACE

Message: Add a space between sentences

Suggestion: In

...the Arpanet possible spread and evolved.In time, the network spread beyond academ...

^^

Line 239, column 100, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...possible spread and evolved.In time, the network spread beyond academic and milit...

^^

Line 240, column 95, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...ns and became known as the Internet. The emergence of networking involved a redef...

^^

Line 242, column 102, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...include the ability to define and access the resources of other computers on the ...

^^

Line 243, column 101, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...ipheral devices, stored information, and the like, as extensions of the resources...

^^

Line 244, column 214, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...he 1990s the spread of applications like e-mail and the World Wide Web, combined ...

^^

Line 245, column 87, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...he development of cheap, fast networking technologies like Ethernet and ADSL saw ...

^^

Line 246, column 99, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...g become almost ubiquitous. In fact, the number of computers that are networked i...

^^

Line 247, column 100, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...lly. A very large proportion of personal computers regularly connect to the Inter...

^^

Line 248, column 85, Rule ID: EN\_QUOTES[1]

Message: Use a smart opening quote here: 'â€œ'.

Suggestion: â€œ

...to communicate and receive information. "Wireless" networking, often utilizing m...

^

Line 248, column 94, Rule ID: EN\_QUOTES[2]

Message: Use a smart closing quote here: 'â€•'.

Suggestion: •

...icate and receive information. "Wireless" networking, often utilizing mobile pho...

^

Line 248, column 95, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...cate and receive information. "Wireless" networking, often utilizing mobile phone...

^^

Line 249, column 97, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...eant networking is becoming increasingly ubiquitous even in mobile computing envi...

^^

Line 250, column 96, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...icial intelligence A computer will solve problems in exactly the way it is progra...

^^

Line 251, column 102, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...rd to efficiency, alternative solutions, possible shortcuts, or possible errors i...

^^

Line 252, column 103, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:



...rograms that learn and adapt are part of the emerging field of artificial intelli...

^^

Line 253, column 107, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

.... Artificial intelligence based products generally fall into two major categories...

^^

Line 254, column 105, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

... pattern recognition systems. Rule based systems attempt to represent the rules u...

^^

Line 256, column 97, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...e conclusions. Examples of pattern based systems include voice recognition, font ...

^^

Line 257, column 99, Rule ID: WHITESPACE\_RULE

Message: Possible typo: you repeated a whitespace

Suggestion:

...lation and the emerging field of on-line marketing.

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