



Reading

Programming languages

Programming languages create the programs (software) that communicate instructions to a computer. There are many different types of programming languages. But they all have the ability to:

- **input** data from a device such as a keyboard.
- **output** data to a device such as a screen.
- process **calculations** like addition and subtraction.
- process **decisions** based on certain conditions being met.
- process **iterations** for a certain number of times **while** or **until a condition is met**.

Languages are defined as human-readable or machine-readable.

Human-readable instructions are encoded in a language that humans can use and understand, while machine-readable instructions are in a language that computers understand.

Languages are also described as high-level or low-level. High-level languages include Java, JavaScript, C++, Ruby, BASIC, or Python, while low-level languages include C, assembly language, and machine code. Low-level instructions can be processed more speedily than high-level languages, but they are more difficult for people to read and write. For major web applications and powerful games, developers need to know how to code in low-level languages in order to maximize the speed and efficiency of a program.

Adapted from BBC.

1. Are these sentences true or false?

- | | |
|--|---|
| a) Languages can be described as high, medium, or low-level. | f |
| b) Low-level languages include Java, C++, or Ruby. | f |
| c) Developers code in low-level languages to maximize the speed of programs. | t |
| d) Programming languages create programs. | t |
| e) Languages can only be defined as human-readable. | f |

2. Correct the false statements from the previous exercise:

- | | |
|---|-------|
| a) Languages can be described high, or low level | _____ |
| b) High-levels languages include Java,C++,Ruby.. | _____ |
| c) Languages be defined as human readable or machine-readable | _____ |

3. Complete the table with synonyms from the text:

a) productivity:	efficiency
b) important:	
c) characterized:	certain
d) comprehend:	need to know /understand
e) creator:	developers

4. Please answer the following questions about the text:

a) What are the three basic requirements for a programming language?

know assembly, machine code and c

b) Describe a human-readable language in your own words.

Introductions to know how is the function of the program

c) How would one describe a language that is machine-readable?

Machine read and understand the program

d) Do you know any of the programming languages described in the text? Why?

Java, python in others, its necessary know this languages today

5. Complete the table with the main characteristics of programming languages:

High-level languages	Low-level languages