



Ruby

Ruby is an object-oriented scripting language that can be used independently or as part of the Ruby on Rails web framework. A language of careful balance, it was created in 1995 by Matsumoto who blended parts of his favourite languages (Perl, Smalltalk, Eiffel, Ada, and Lisp) to form a new one that combined functional programming with imperative programming.

It is open source, which means it is completely free to use, copy, modify and distribute. It is also seen as an intuitive and flexible language, since it allows its users to freely alter it. In fact, essential parts of Ruby can be removed or redefined, at will, and existing parts can be added upon. Ruby tries not to restrict the code: for example, addition is performed with the + operator, but if users prefer the readable word 'plus', this method can be added to Ruby built-in numeric class.

In Ruby, everything is an object. Every bit of information and code can be given its own properties and actions. Object-oriented programming calls properties by the name 'instance variables' and actions are known as 'methods'. Its pure object-oriented approach is most commonly demonstrated by a bit of code which applies an action to a number.

What does Ruby look like? It usually prefers English keywords, but some punctuation is used to decorate it. Ruby needs no variable declarations. It uses simple naming conventions to denote the scope of variables, such as 'var' which could be a local variable. These sigils enhance readability by allowing the programmer to easily identify the roles of each variable. It has several other features too, such as the ease with which errors can be handled, and its portability. Ruby is used for simulations, 3D modelling and for managing and tracking information. Basecamp, Amazon, Twitter and Groupon were all created using Ruby on Rails, while NASA uses Ruby to conduct simulations.



ACTIVITIES

1 Write questions for the following answers.

- 1 ?
It is an object-oriented scripting language.
- 2 ?
By blending parts of other languages.
- 3 ?
Because it allows its users to freely alter it.
- 4 ?
Its own properties and actions.
- 5 ?
Instance variables.
- 6 ?
English keywords with some punctuation.
- 7 ?
Denoting the scope of variables.
- 8 ?
Easy handling of errors and portability.



- 2 Read the text again and choose the correct word to complete the sentences.
- 1 Ruby can be used, copied and modified *while* / *as* it is open source.
 - 2 Its code is not restricted *therefore* / *however* new methods can be added.
 - 3 'Methods' is the *way* / *means* in which actions are called.
 - 4 It is made up of English words *despite* / *whereas* punctuation is used to decorate it.
 - 5 'Var' is an *example* / *exception* of its simple naming conventions.
 - 6 Ruby is used for *both* / *either* simulations and 3D modelling.
- 3 Match each word with its definition.
- | | |
|----------------------------|--|
| 1 To blend | A A formal or explicit statement |
| 2 Intuitive (in computing) | B Easy to use and understand |
| 3 To alter | C To combine or mix objects or substances |
| 4 Instance | D Absence of difficulty |
| 5 Declaration | E A sign or symbol |
| 6 To denote | F An example or single occurrence of something |
| 7 Sigil | G To be a sign of, indicate |
| 8 Ease | H To modify or change |
- 4 What makes Ruby intuitive, easy to use and flexible?
Answer this question in a short paragraph.

