Introducing JSON

json.org/json-en.html

JSON (JavaScript Object Notation) is a lightweight data-interchange format. It is easy for humans to read and write. It is easy for machines to parse and generate. It is based on a subset of the JavaScript Programming Language Standard ECMA-262 3rd Edition - December 1999. JSON is a text format that is completely language independent but uses conventions that are familiar to programmers of the C-family of languages, including C, C++, C#, Java, JavaScript, Perl, Python, and many others. These properties make JSON an ideal data-interchange language.

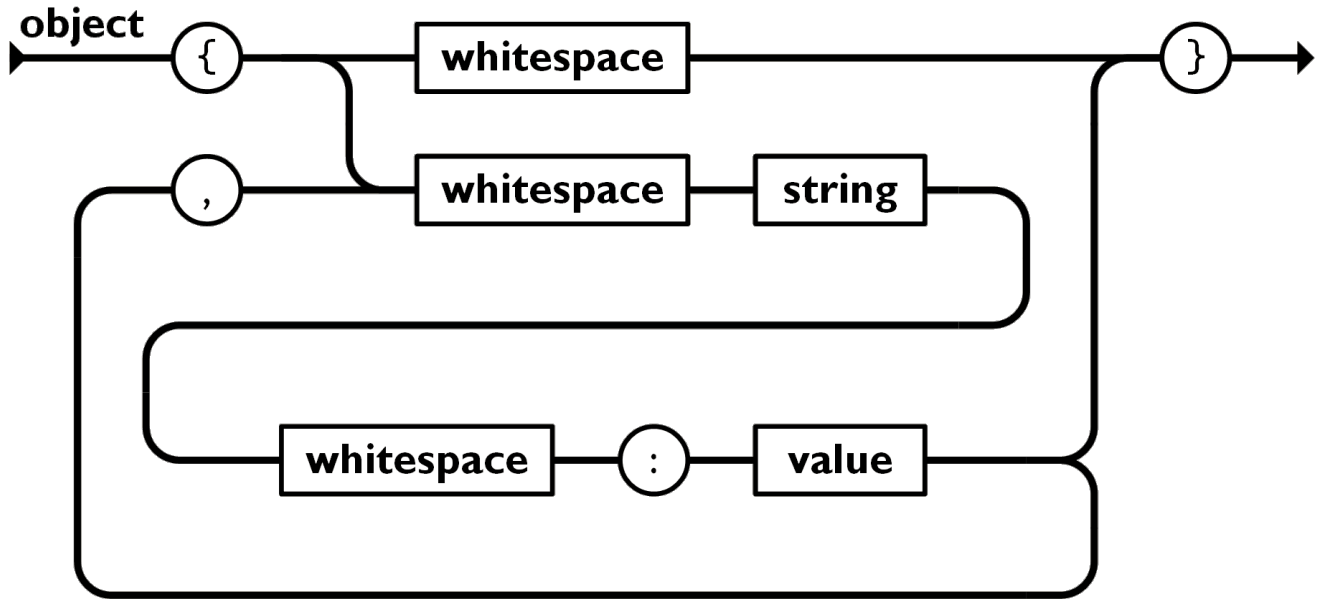
JSON is built on two structures:

- A collection of name/value pairs. In various languages, this is realized as an *object*, record, struct, dictionary, hash table, keyed list, or associative array.
- An ordered list of values. In most languages, this is realized as an *array*, vector, list, or sequence.

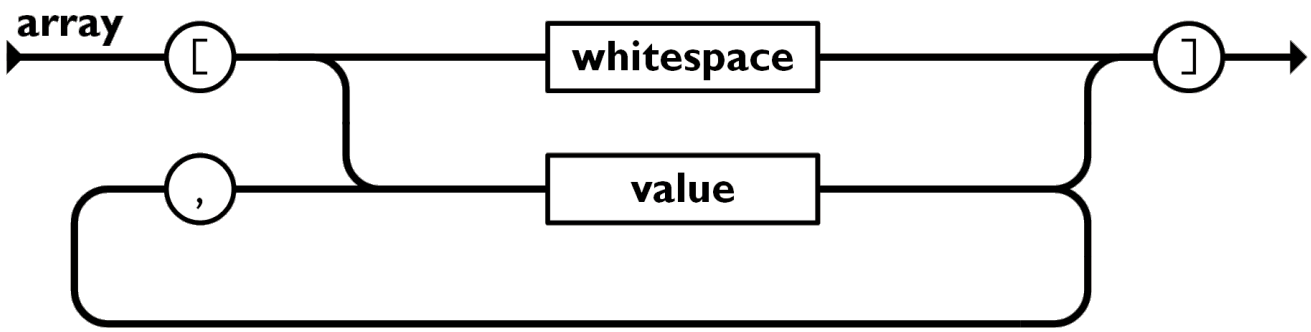
These are universal data structures. Virtually all modern programming languages support them in one form or another. It makes sense that a data format that is interchangeable with programming languages also be based on these structures.

In JSON, they take on these forms:

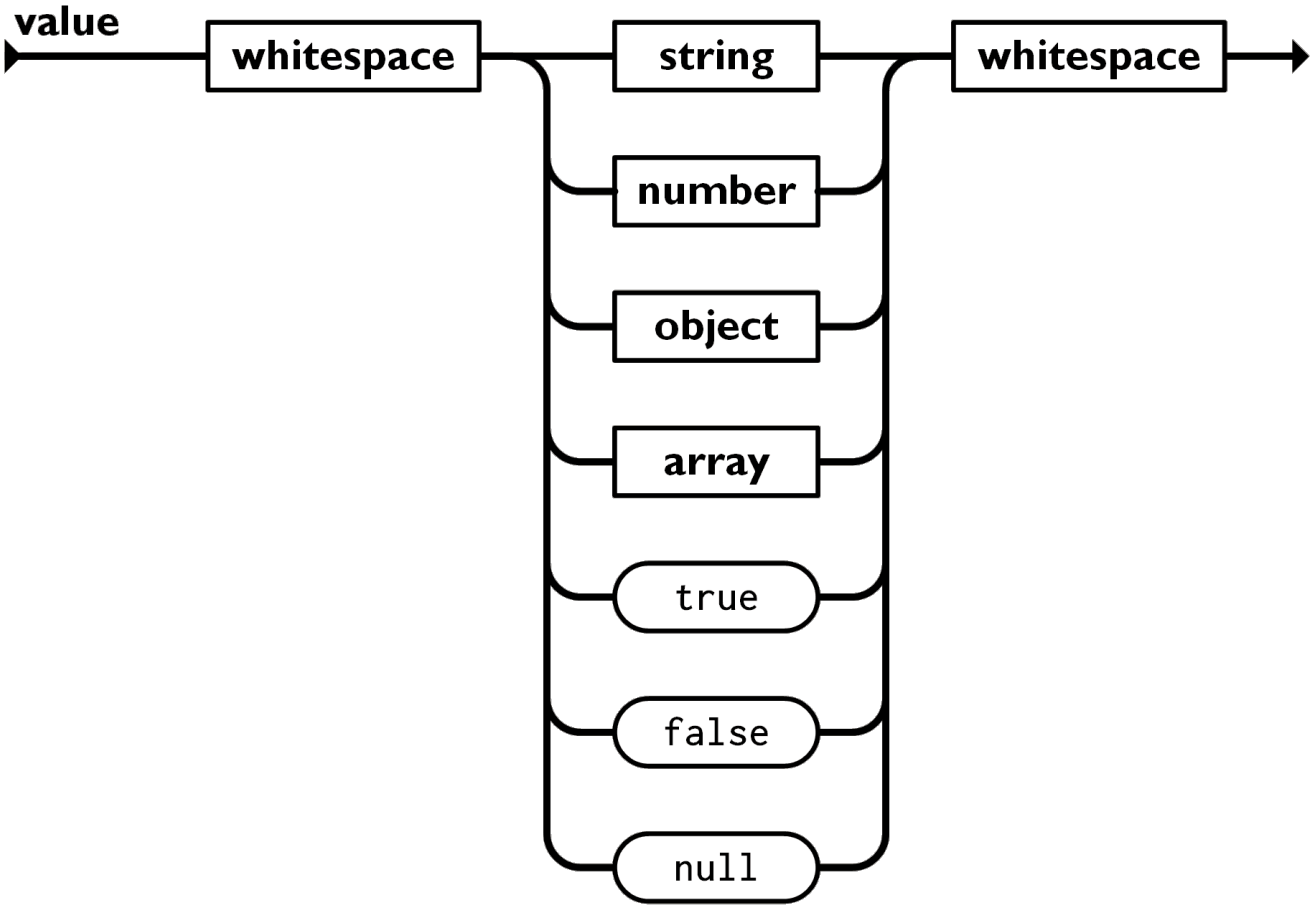
An *object* is an unordered set of name/value pairs. An object begins with { left brace and ends with } right brace. Each name is followed by : colon and the name/value pairs are separated by , comma.



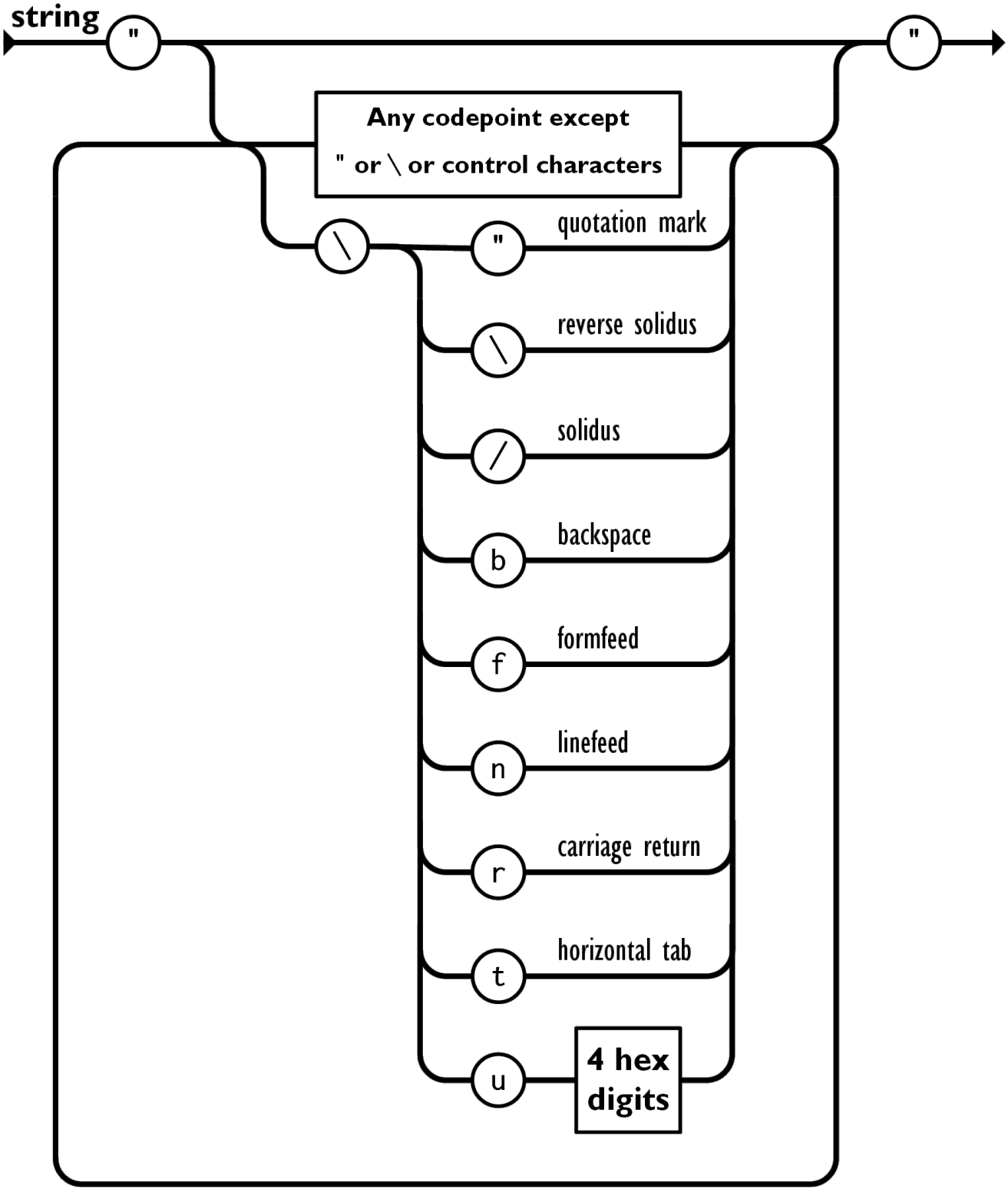
An *array* is an ordered collection of values. An array begins with `[` left bracket and ends with `]` right bracket. Values are separated by `,` comma.



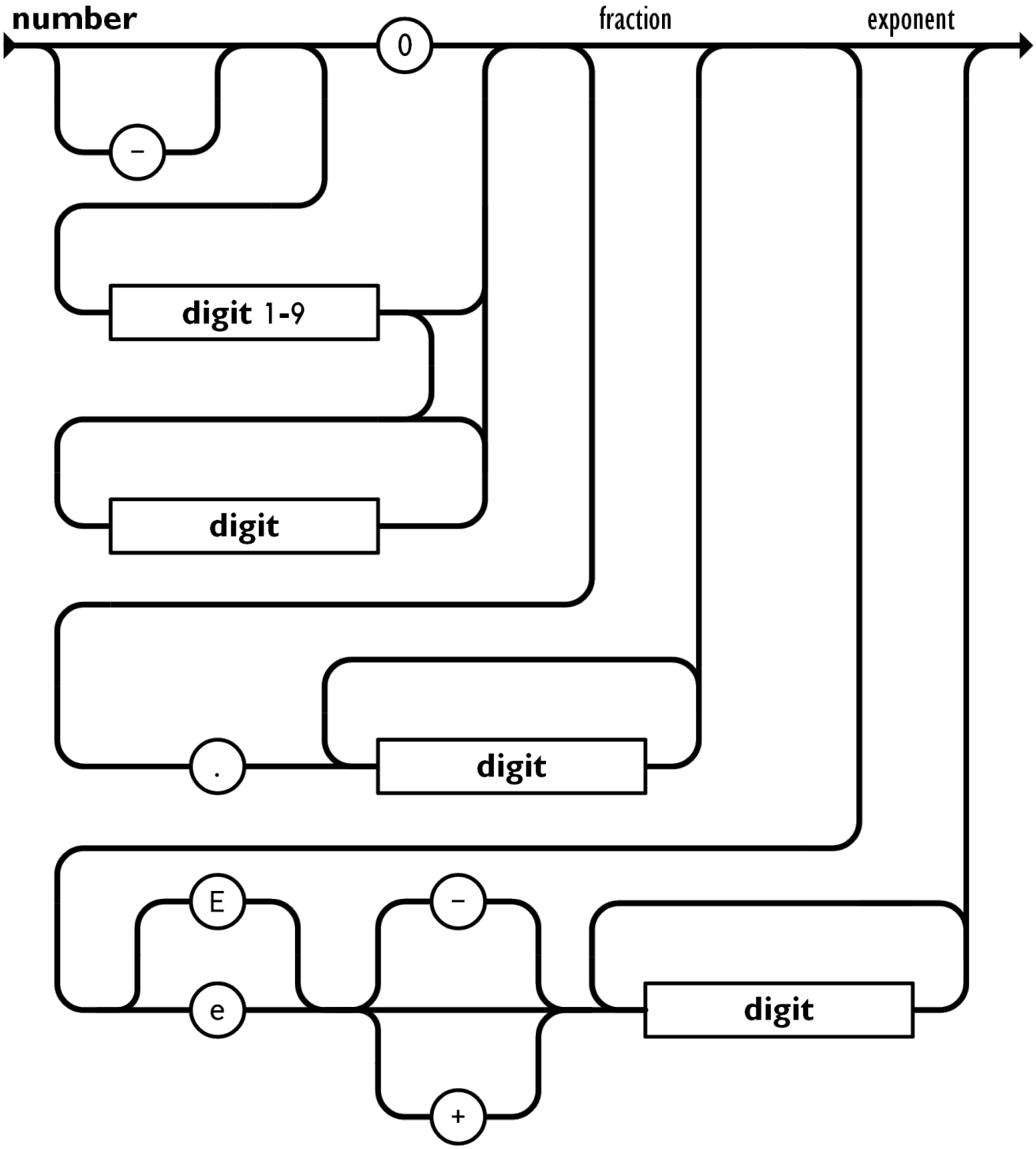
A *value* can be a *string* in double quotes, or a *number*, or `true` or `false` or `null`, or an *object* or an *array*. These structures can be nested.



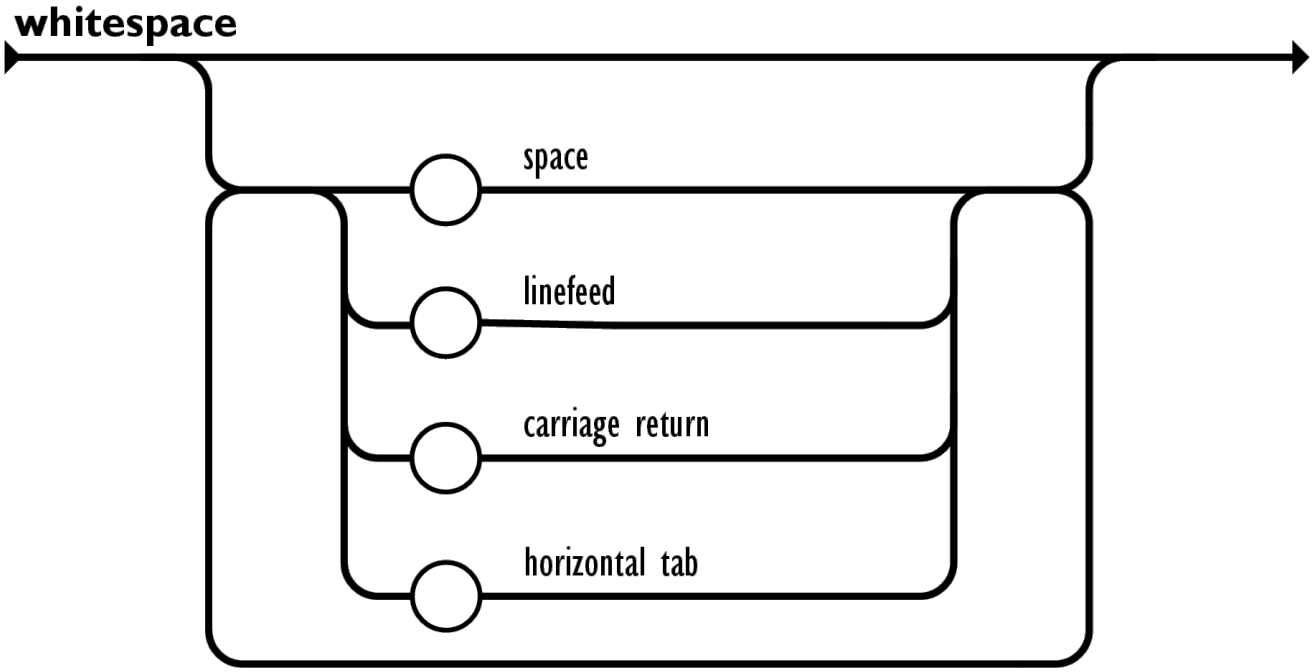
A *string* is a sequence of zero or more Unicode characters, wrapped in double quotes, using backslash escapes. A character is represented as a single character string. A string is very much like a C or Java string.



A *number* is very much like a C or Java number, except that the octal and hexadecimal formats are not used.



Whitespace can be inserted between any pair of tokens. Excepting a few encoding details, that completely describes the language.


whitespace
space
linefeed
carriage return
horizontal tab