Plant UML

lantUML 은 다이어그램을 빠르게 작성하기 위한 오픈 소스 프로젝트입니다.

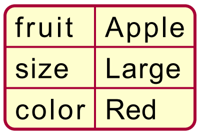
Display JSON Data

JSON format is widely used in software.

You can use PlantUML to visualize your data.
To activate this feature, the diagram must:

- begin with `@startjson` keyword
- end with `@endjson` keyword.

```
@startjson
{
   "fruit":"Apple",
   "size":"Large",
   "color":"Red"
}
@endjson
```

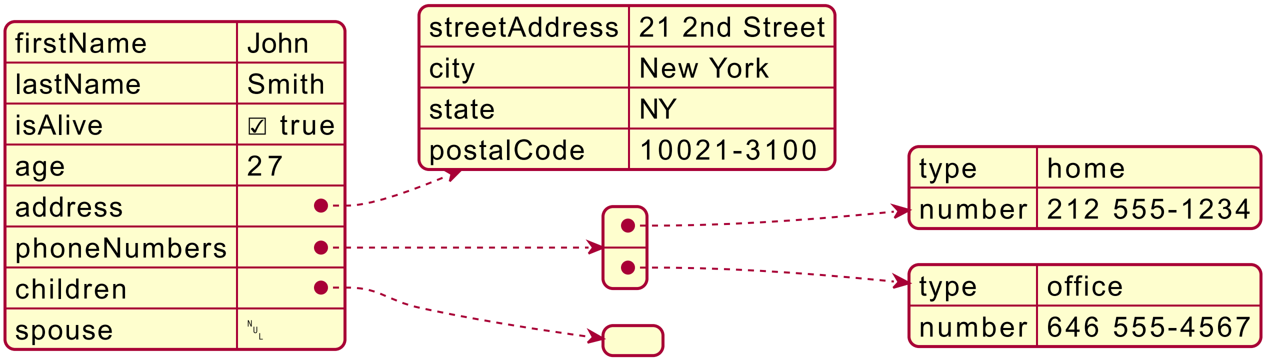


fruit	Apple
size	Large
color	Red

Complex example

You can use complex JSON structure.

```
@startjson
{
  "firstName": "John",
  "lastName": "Smith",
  "isAlive": true,
  "age": 27,
  "address": {
    "streetAddress": "21 2nd Street",
    "city": "New York",
    "state": "NY",
    "postalCode": "10021-3100"
  },
  "phoneNumbers": [
    {
      "type": "home",
      "number": "212 555-1234"
    },
    {
      "type": "office",
      "number": "646 555-4567"
    }
  ],
  "children": [],
  "spouse": null
}
@endjson
```



firstName	John
lastName	Smith
isAlive	☑ true
age	27
address	●
phoneNumbers	●
children	●
spouse	NUL

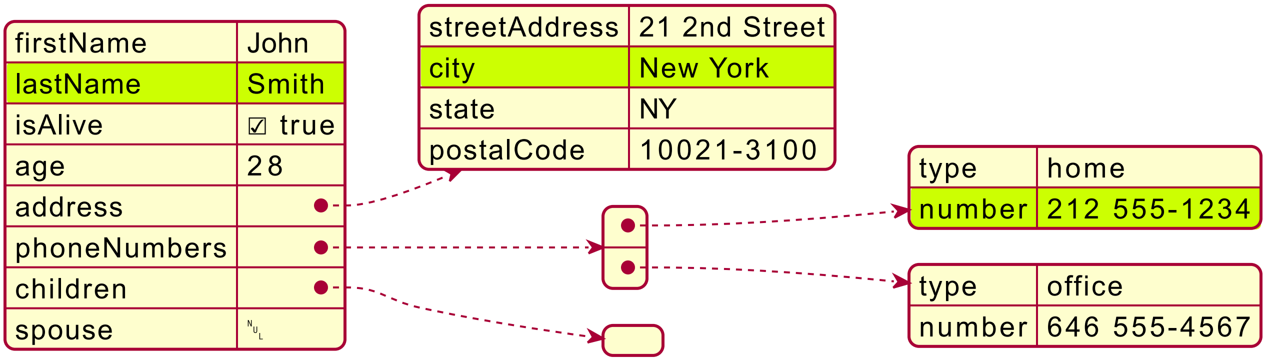
streetAddress	21 2nd Street
city	New York
state	NY
postalCode	10021-3100

type	home
number	212 555-1234

type	office
number	646 555-4567

Highlight parts

```
@startjson
#highlight "lastName"
#highlight "address" / "city"
#highlight "phoneNumbers" / "0" / "number"
{
  "firstName": "John",
  "lastName": "Smith",
  "isAlive": true,
  "age": 28,
  "address": {
    "streetAddress": "21 2nd Street",
    "city": "New York",
    "state": "NY",
    "postalCode": "10021-3100"
  },
  "phoneNumbers": [
    {
      "type": "home",
      "number": "212 555-1234"
    },
    {
      "type": "office",
      "number": "646 555-4567"
    }
  ],
  "children": [],
  "spouse": null
}
@endjson
```



firstName	John
lastName	Smith
isAlive	☑ true
age	28
address	●
phoneNumbers	●
children	●
spouse	NUL

streetAddress	21 2nd Street
city	New York
state	NY
postalCode	10021-3100

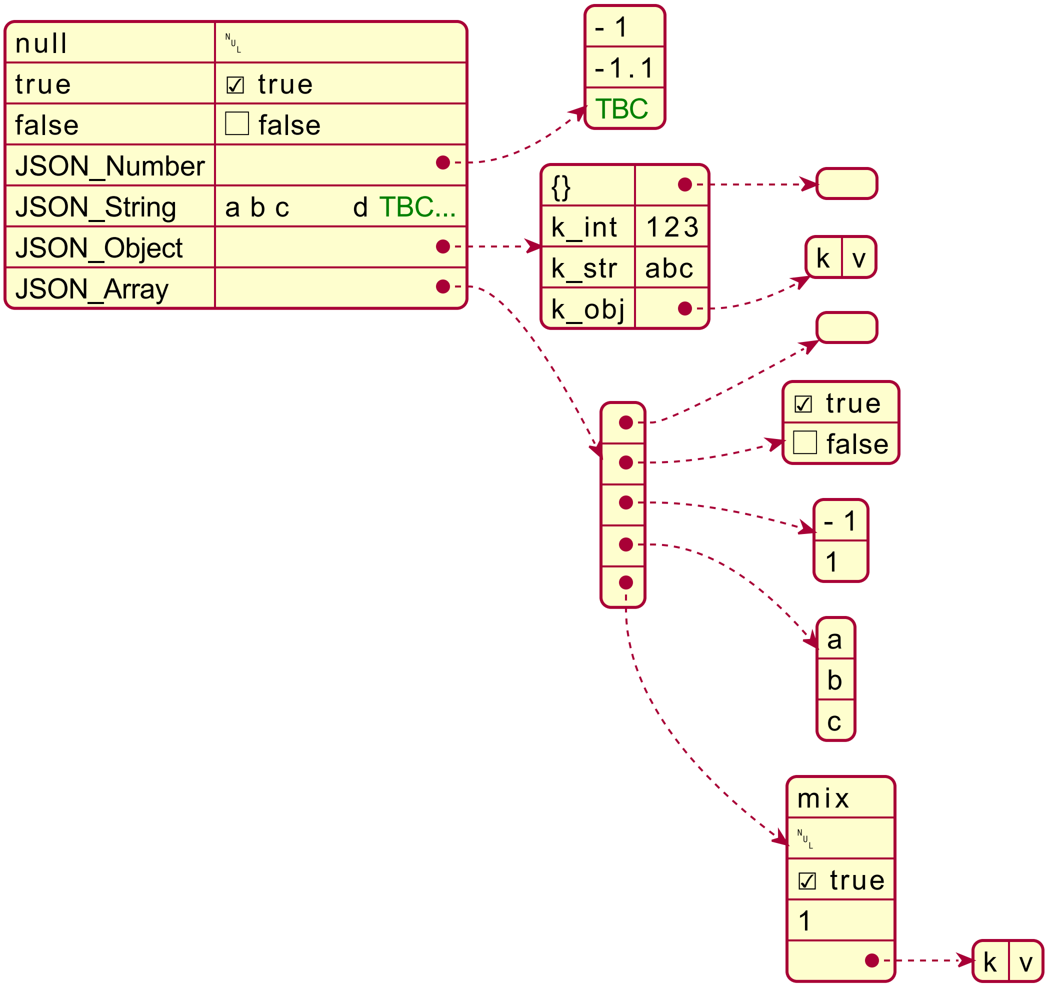
type	home
number	212 555-1234

type	office
number	646 555-4567

JSON basic element

Synthesis of all JSON basic element

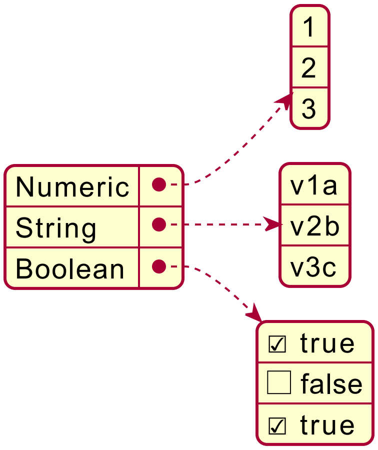
```
@startjson
{
"null": null,
"true": true,
"false": false,
"JSON_Number": [-1, -1.1, "<color:green>TBC"],
"JSON_String": "a\nb\rc\td <color:green>TBC...",
"JSON_Object": {
  "{}": {},
  "k_int": 123,
  "k_str": "abc",
  "k_obj": {"k": "v"}
},
"JSON_Array" : [
  [],
  [true, false],
  [-1, 1],
  ["a", "b", "c"],
  ["mix", null, true, 1, {"k": "v"}]
]
}
@endjson
```



JSON array or table

Array type

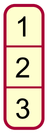
```
@startjson
{
"Numeric": [1, 2, 3],
"String ": ["v1a", "v2b", "v3c"],
"Boolean": [true, false, true]
}
@endjson
```



Minimal array or table

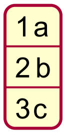
Number array

```
@startjson
[1, 2, 3]
@endjson
```



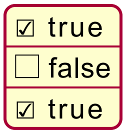
String array

```
@startjson
["1a", "2b", "3c"]
@endjson
```



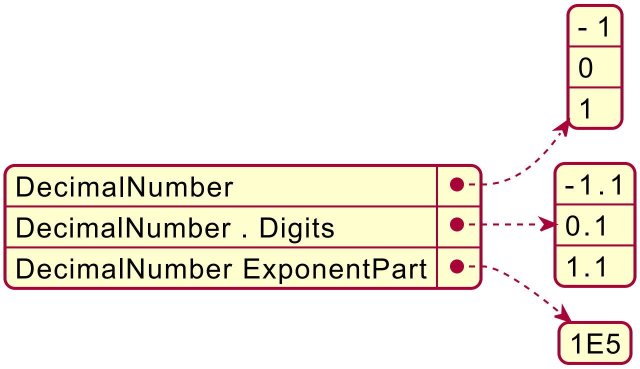
Boolean array

```
@startjson
[true, false, true]
@endjson
```



JSON numbers

```
@startjson
{
"DecimalNumber": [-1, 0, 1],
"DecimalNumber . Digits": [-1.1, 0.1, 1.1],
"DecimalNumber ExponentPart": [1E5]
}
@endjson
```

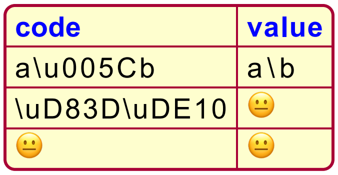


JSON strings

JSON Unicode

On JSON you can use Unicode directly or by using escaped form like `\uXXXX`.

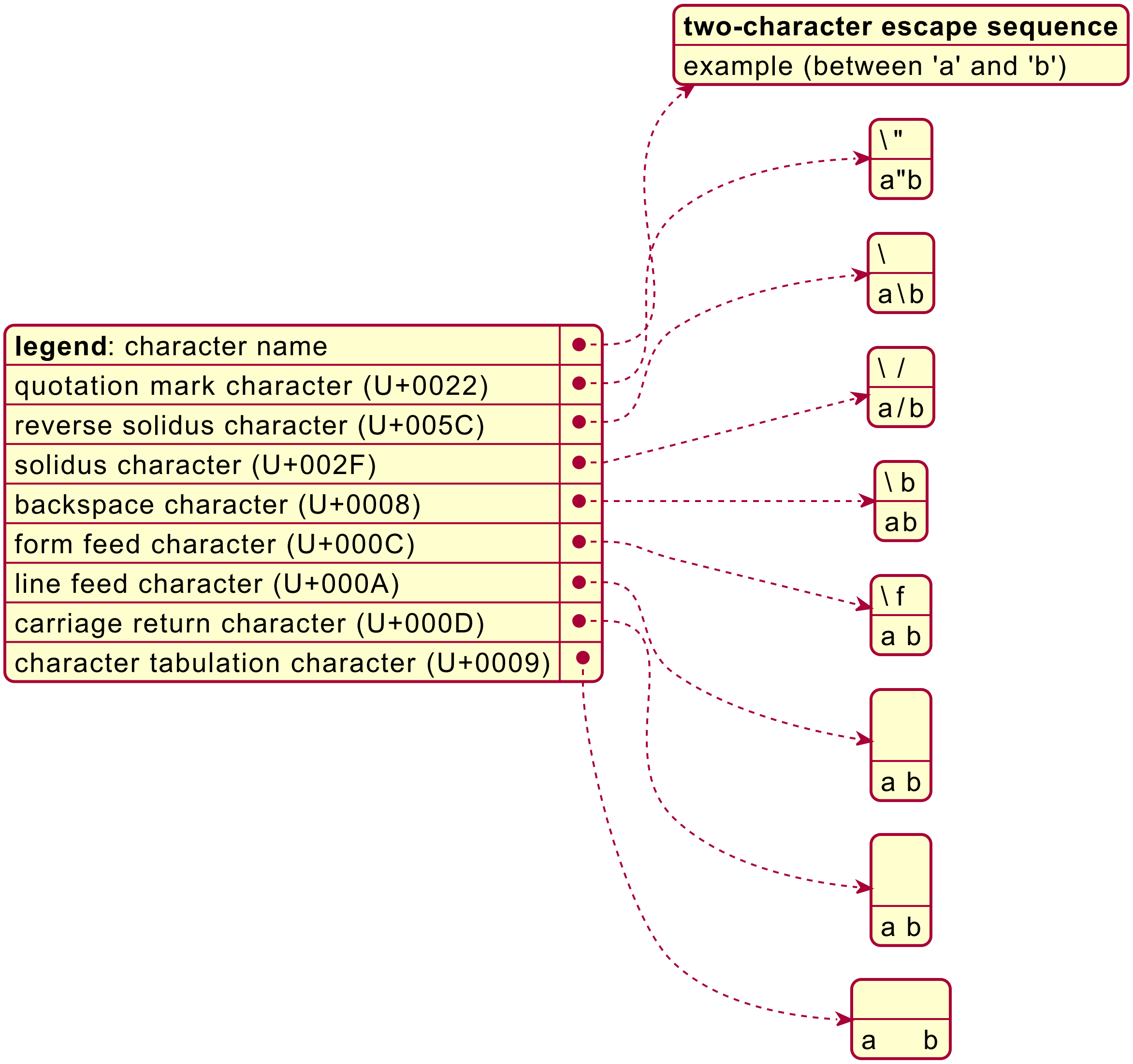
```
@startjson
{
  "<color:blue><b>code": "<color:blue><b>value",
  "a\\u005Cb":           "a\u005Cb",
  "\\uD83D\\uDE10":      "\uD83D\uDE10",
  "😐":                  "😐"
}
@endjson
```



code	value
a\u005Cb	a\b
\uD83D\uDE10	😐
😐	😐

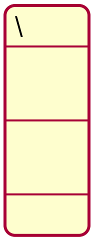
JSON two-character escape sequence

```
@startjson
{
 "**legend**: character name":               ["**two-character escape sequence**", "exampl
 "quotation mark character (U+0022)":        ["\\\"", "a\"b"],
 "reverse solidus character (U+005C)":       ["\\\\", "a\\b"],
 "solidus character (U+002F)":               ["\\/", "a\/b"],
 "backspace character (U+0008)":             ["\\b", "a\bb"],
 "form feed character (U+000C)":             ["\\f", "a\fb"],
 "line feed character (U+000A)":             ["\\n", "a\nb"],
 "carriage return character (U+000D)":       ["\\r", "a\rb"],
 "character tabulation character (U+0009)":  ["\\t", "a\tb"]
}
@endjson
```


two-character escape sequence
example (between 'a' and 'b')
legend: character name
quotation mark character (U+0022)
reverse solidus character (U+005C)
solidus character (U+002F)
backspace character (U+0008)
form feed character (U+000C)
line feed character (U+000A)
carriage return character (U+000D)
character tabulation character (U+0009)
\"
a"b
\
a\b
\ /
a/b
\ b
ab
\ f
a b
a b
a b
a   b

FIXME or not 😉, on the same item as `\n` management in PlantUML 😉

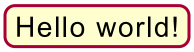
```
@startjson
[
"\\\\",
"\\n",
"\\r",
"\\t"
]
@endjson
```



Minimal JSON examples

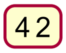
Example 1

```
@startjson
"Hello world!"
@endjson
```



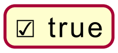
Example 2

```
@startjson
42
@endjson
```



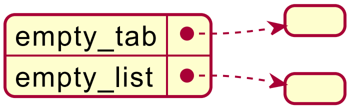
Example 3

```
@startjson
true
@endjson
```



Empty table or list

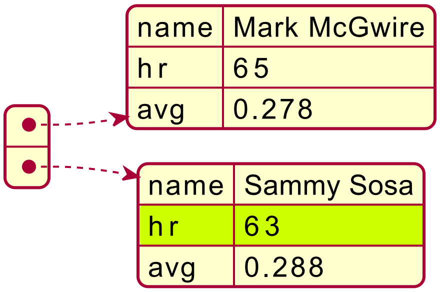
```
@startjson
{
  "empty_tab": [],
  "empty_list": {}
}
@endjson
```



Using (global) style

Without style (by default)

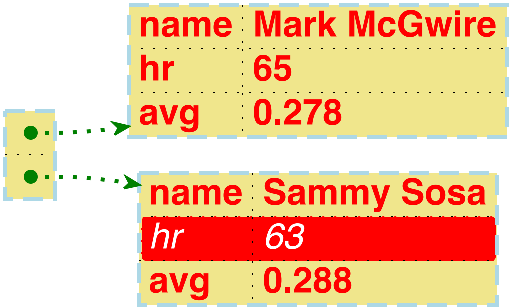
```
@startjson
#highlight "1" / "hr"
[
  {
    "name": "Mark McGwire",
    "hr":   65,
    "avg":  0.278
  },
  {
    "name": "Sammy Sosa",
    "hr":   63,
    "avg":  0.288
  }
]
@endjson
```



With style

You can use style to change rendering of elements.

```
@startjson
<style>
jsonDiagram {
  node {
    BackGroundColor Khaki
    LineColor lightblue
    FontName Helvetica
    FontColor red
    FontSize 18
    FontStyle bold
    RoundCorner 0
    LineThickness 2
    LineStyle 10;5
    separator {
      LineThickness 0.5
      LineColor black
      LineStyle 1;5
    }
  }
  arrow {
    BackGroundColor lightblue
    LineColor green
    LineThickness 2
    LineStyle 2;5
  }
  highlight {
    BackGroundColor red
    FontColor white
    FontStyle italic
  }
}
</style>
#highlight "1" / "hr"
[
  {
    "name": "Mark McGwire",
    "hr":   65,
    "avg":  0.278
  },
  {
    "name": "Sammy Sosa",
    "hr":   63,
    "avg":  0.288
  }
]
@endjson
```



name	Mark McGwire
hr	65
avg	0.278

name	Sammy Sosa
hr	*63*
avg	0.288