

VoiceJava 定义

0. 定义 Name:

- 语法: `[_]+`
- 示例: `hello world,`

1. 定义package:

- 语法: `define package Name [dot Name]*`
- 示例: `define package hello world dot nice code, define package hello dot world`

2. 导入module:

- 语法: `import static? Name [dot [Name | star]]*`
- 示例: `import longyan university, import longyan dot university, import longyan dot star`

3. 定义interface:

- 语法: `define (Annotation | public | protected | private | abstract | static | final | strictfp)? interface Name`
- 示例: `define interface hello world, define interface hello`

4. 定义class:

- 语法: `define (Annotation | public | protected | private | abstract | static | final | strictfp)* class Name [extends Name]? [implements Name]?`
- 示例: `define public class hello world, define public class hello world extends greeting implements good morning`

5. 定义构造函数

- 语法: `define constructor`
- 备注: 还未实现。

6. 定义方法method:

- 语法: `define (Annotation | public | protected | private | abstract | static | final | synchronized | native | strictfp)* function Name [throws Exception]?`
- 示例: `define public function say hello, define public function say hello throws Exception`

7. 定义箭头函数:

- 语法: `define arrow function`
- 示例: 备注: 还未实现。

8. 属性/变量定义:

- 语法: `define (Annotation | public | protected | private | static | final | transient | volatile)* (Name list | Name [dot Name]? [with Name [and Name]*]?) variable Name`
- 示例: `define private int variable count, define int list variable list, define Pair with Integer String`

9. 定义类型:

- 语法: `type (Name list | Name [dot Name]? [with Name [and Name]*]?) [extends _]?`
- 示例: `type int, type void`

10. 定义参数:

- 语法: `type (Name list | Name [dot Name]? [with Name [and Name]*]?) variable Name`
- 示例: `type int variable count, type NodeList with Statement variable nodelist`

11. 定义for循环:

- 语法: `define [enchanced]? for`
- 备注: `enchanced`还未实现。

12. 定义while循环:

- 语法: `define [do]? while`
- 备注: `do`还未实现

13. 定义if:

- 语法: `define if`

14. 定义switch:

- 语法: `define switch`

15. 定义try-catch:

- 语法: `define try catch`
- 备注: 还未实现。

16. 定义@Override

- 语法: `define at override`
- 备注: 还未实现。

17. 定义子表达式, 即括号。

- 语法: `subexpression`

18. break

19. continue

20. 构建新实例:

- 语法: `new instance Name [dot Name]*`
- 示例: `new instance puppy, new instance hash map dot entry`

21. 抛出异常:

- 语法: `throw new Name`

22. 6 种赋值形式:

- `let Name [dot Name]? equal call Name`
 - 示例: `let count equal call compute`
- `let Name [dot Name]? equal Name [dot Name]* [call Name]+`
 - 示例: `let student dot score equal student call score`
- `let Name [dot Name]? equal Name [dot Name]*`
 - 示例: `let score equal student first dot semester dot score`
- `let Name [dot Name]? equal [variable]? Name`
 - 示例: `let score equal variable final score`
- `let Name [dot Name]? equal (int | byte | short | long | char | float | double | boolean | string) Name`
 - 示例: `let score equal int 2`
- `let Name [dot Name]? equal [expression]?`
 - 示例: `let score equal, let score equal expression`

23. 6 种返回形式:

- `return call Name`
- `return Name [dot Name]* [call Name]+`
- `return Name [dot Name]*`
- `return [variable]? Name`
- `return (int | byte | short | long | char | float | double | boolean | string) Name`
- `return [expression]?`

24. 12 种表达式

- `expression? call Name`
- `expression? Name [dot Name]* [call Name]+`
- `expression? Name [dot Name]?`
- `expression? [variable]? Name`
- `expression? (int | byte | short | long | char | float | double | boolean | string) Name`
- `expression? Name plus plus`
- `expression? Name minus minus`
- `expression? plus plus Name`
- `expression? minus minus Name`
- `expression? expression (op | compare) expression`
- `expression? Name (op | compare) expression`
 - 示例: `expression 3 times expression`

- 注意: 语音如何区分数字和字母?
- `expression? Name (op | compare) Name`
 - 示例: `expression 3 plus 4`
- `expression? variable Name index Name`
 - 示例: `expression variable name list index index`, 数组索引
- `expression? string Name`
 - 示例: `string hello world`, 支持多个单词。
 - 注意: 和前面重复。
- 备注:
 - `op ::= plus | minus | times | divide | mod`
 - `compare ::= less than | less equal | greater than | greater equal | double equal | and | double and`
 - 备注: `and`还不支持

25. 常用指令:

- `move next`
- `jump out`
- `jump before _`
 - 示例: `jump before hello`
- `jump after _`
 - 示例: `jump after hello`
- `jump to line [_]? [start | end]?`
 - 示例: `jump to line 100 start`, `jump to line 100 end`
- `up [_ lines]?`
 - 示例: `up 5 lines`
- `down [_ lines]?`
- `left`
- `right`
- `select line`
 - 备注: 选中当前行
- `select body`
 - 备注: 选中当前的区域
- `select _`
 - 备注: 选中名字
- `select function [_]?`
 - 示例: `select function sayHello`
 - 备注: 选中函数
- `replace _ to _`
- `delete`
- `undo`:撤销