# Java and Object-oriented Design

Wuhui Chen

## One of the most popular Language

TIOBE 2016 IEEE Spectrum 2016			PYPL 2016	PYPL 2016 Eng Lang. Index 2016				
Rankings:		Rankings:		Rankings:		Rankings:		Rankings:
1. Java		1. C		1. Java		1. Java		1. Python
2. C		2. Java		2. Python		2 Duthon		2. Java
3. C++		3. Python		3. PHP		2. Python		3. C++
4. C#		4. C++		4. C#		3. PHP		4. C#
5. Python		5. R				4. C#		
6. JavaScript		6. C#		5. JavaScript		5. C++		5. C
7. PHP		7. PHP		6. C++		( )		6. JavaScript
8. Visual Basic .NET		8. JavaScript		7. C		6. C		7. Ruby
9. Perl		9. Ruby		8. Objective-C		7. JavaScript		8. PHP
10. Delphi		·		9. R		8. Go		9. Haskell
11. Ruby		10. Go		10. Swift		9. Matlab		
12. Swift		11. Swift		11. Matlab				10. Go
13. Objective-C		12. Matlab		12. Ruby		10. R		11. Scala
14. Matlab		13. Scala				11. Swift		12. Perl
15. Groovy		14. Perl		13. VBA		12. Ruby		13. Objective-C
16. Visual Basic		15. Visual Basic		14. Visual Basic		13. Visual Basic		,
17. R		16. Objective-C		15. Scala		15. VISUAI DASIC		14. R 2

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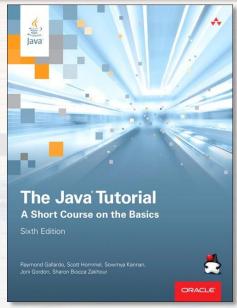
#### Latest Data (May, 2019):

TIOBE Index						PYPL Index (Worldwide)					
May 2019 *	May ▲ 2018	Change \$	Programming language	Ratings \$	Change	May _ 2019	Change \$	Programming language	Share \$	Trends \$	
1	1		Java	16.005%	-0.38%	1		Python	27.34 %	+4.5 %	
2	2		С	14.243%	+0.249	2		Java	20.25 %	-2.1 %	
3	3		C++	8.095%	+0.439	3		Javascript	8.51 %	-0.0 %	
4	4		Python	7.830%	+2.649	4	1	C#	7.38 %	-0.5 %	
6	5	1	C#	3.984%	-0.42%	5	↓	PHP	7.34 %	-0.9 %	
5	6	1	Visual Basic .NET	5.193%	+1.079	6		C/C++	6.01 %	-0.3 %	
9	7	↓	PHP	2.489%	-0.83%	7		R	4.16 %	-0.1 %	
7	8	1	JavaScript	2.690%	-0.23%	8		Objective-C	2.91 %	-0.6 %	
8	9	1	SQL	2.555%	+0.579	9		Swift	2.5 %	-0.3 %	
15	10	<b>↓</b> ↓	Ruby	1.343%	+0.169	10		Matlab	2.03 %	-0.3 %	
12	12 12		Delphi/Object	1.406%	+0.399	11	1	TypeScript	1.61 %	+0.1 %	
12	12		Pascal	1.40070		12	↓	Ruby	1.4 %	-0.3 %	
10	13	1	Assembly language	1.816%	+0.829	13		VBA	1.38 %	-0.0 %	
19	14	11	Go	1.114%	+0.149	14	<u>†</u> ††	Go	1.22 %	+0.4 %	
11	15	<u>†</u> †	Objective-C	1.626%	+0.699	15	1	Kotlin	1.2 %	+0.3 %	
14	16	1	MATLAB	1.366%	+0.449	16	Ţ	Scala	1.17 %	-0.0 %	
16	17	· ↑	Visual Basic	1.317%	+0.409	17	†††	Visual Basic	1.09 %	-0.2 %	
13	18	 ↑↑	Perl	1.394%	+0.489	18	<b>†</b> †	Rust	0.63 %	+0.3 %	
18	19		Swift	1.150%	+0.249	19	Ţ	Perl	0.61 %	-0.1 %	
20	22		PL/SQL	1.017%	+0.129	20	ţ	Lua	0.4 %	+0.0 %	
17	91		Groovy	1.173%	+1.069	21		Haskell	0.32 %	+0.0 %	
17	J1	- 11	Groovy	1.17570	11.007	22	1	Julia	0.27 %	+0.1 %	
						23	↓	Delphi	0.26 %	-0.0 %	

### Literature

The Java Tutorial, 6th **Edition, A Short Course** on the Basics by Raymond Gallardo, Scott Hommel, Sowmya Kannan, Joni Gordon, S. Zakhour, Sun Microsystems, 2014 (English version), 2016 (Chinese Version).





## **Grading Policy**

- Detailed grading policy
  - Exercises 40% (Deadline: 12:00PM, Sunday, The exercise week)
  - Final Project: 50%
    - Project
    - Report
  - Attendance: 10%
    - Mid-term Report
    - Quiz

### **Course Details**

- Course homepage http://inpluslab.com/java2019/
- Join QQ group
- ◆ TA: 林晖(<u>18059825857@163.com</u>) 陈羽飞(chenyf75@qq.com)
- Office hours
  - ◆ Monday 3:00PM 5:30PM, JIE 406
- Email: chenwuh@mail.sysu.edu.cn