



\$Ž L~™ O2021 P4 -

与

2021 5

2021 3

: Â4Ý • œL~ ´G µ ,L~” Ñ G L Æ

b œ U5 >C^H 1x* < :Gý+^ ó ,° ï E / žL~B4 8 • œ
û ëF >, ¼-™ , ĵ È ¼ c x @ "G F >, ÞL bB4
#q Þ ,)æ <B4 8 • œ-™ û ë Â ÞL bB4 û ëF >,FP Û >

\$œ • ¥6, P ¶ e œL~

2021 ^a 6 > 14

2021 5

2021 3

b œ U 5 >C^H 1x*< :Gý+^ ó ,° ĩ E / žL~B4 8 • œ û ëF
>, ¼-™ , ě È ¼ c x @ "G F >, pL bB4 #q p ,)æ <B4 8

• œ-™ û ë Â pL bB4 û ëF >,FP Ů >

6 = pL bB4 û ë

5 > bB4 ě È 71 ð!W , Ú bB4Aæ < bB4 O¾ 49 ð!W , Ú
)½ 69.01% >

]G <•>73 ??."x , Ú bB4Aæ < ,bB4AÚ-U ,/ @B4 • >

^ • œ c,°B40A ü = = • œ/r =B4 81x*<1• • ¼Aæ < >

bB4*#4Ý © } fB4)½ p 95 % , fB4)½ 100%,° ? 22 `*#4Ý , – b
B4*#4Ý,° 44.89% Ç fB4)½ >95%,° ? 35 `*#4Ý , – bB4*#4Ý,° 71.42% >

F f)æB—,° ? 38 `*#4Ý , – bB4*#4Ý,° 77.55 % > - %o?÷>ž 1 >

>ž 1 bB4 fB4)½ û ë ?L~G 5 Ax"} q>ž

				100%		95%	
1		7	92.86	1	14.28%	4	57.14%
2		3	88.41	0	0	2	66.67
3		13	92.99	4	30.76	4	30.76
4		17	97.79	11	64.7	2	11.76
5		9	96.47	6	66.67	2	22.22
		49	95	22	44.89	14	28.57

bB4Aú < © } r p 89.98 < , ¬ c bB4Aú < ^ 90 < @,° p 32

đ, – bB4*#4Ý,° 65.30% >

]G < bB4 đ,° bB4Aæ ‹E¹³, bB4 O¾ ; ï Âª, ? 5 f • >

^ ; ï • œ O¾ > ž, • œAú - D 0Aä ; ï,° e , 16 f b

B4 đ,° • œ O¾ • œAú - D 0Aä ; ï `1¶ ‹ >

bB4 û ë ›-A, • >B4 8/r •, û ëE¹³, B4 f ü = { < ,

• œ4à ÁE¹³, B4 81x* < • œ û ë VE¹³ >

Â = n • œ-™ û ë

1. œ+U 0 û ë

b œ U 5 > 3C^H 1x* < : n • œ-™ §Ax 776 *#!W, œ+U © }

fB4)½ 88.66% (4 > 3 p 92.03%) > fB4)½ 100%,°*#4Ý !H p 91 *#

!W, – 11.73% ´ 4 > 3 p 19.54% µ Ç fB4)½ 95%~100%,°*#4Ý !H

p 200 *#!W, – 25.77% ´ 4 > 3 p 30.37% µ Ç fB4)½ 80%~95%,°*#

4Ý !H p 365 *#!W, – 47.04% ´ 4 > 3 p 41.59% µ Ç fB4)½ 70%~80%

,°*#4Ý !H p 67 *#!W, – 8.63% ´ 4 > 3 p 5.03% µ Ç fB4)½ 70%

A,°*#4Ý !H p 53 *#!W, – 6.83% (4 > 3 p 3.48%) , - %o û ë? ÷ > ž

2 >

> ž 2 : • œL~G fB4)½ 5 Ax > ž

	113	82.09%	1	0.88%	16	14.16%	64	56.64%		14.16%	16	14.16%
	101	80.97%	7	6.93%	13	12.87%	48	47.52%	17	16.83%	16	15.84%
	203	92.57%	25	12.32%	65	32.02%	100	49.26%	8	3.94%	5	2.46%
	133	92.67%	22	16.54%		31.58%	63	47.37%	4	3.01%	2	1.50%

	216	89.68%	34	15.74%	64	29.63%	84	38.89%	21	9.72%	6.02%
	10	85.75%	2	20.00%	0	0.00%	6	60.00%	1	10.00%	10.00%

				与	4	
			2001			
			1901		UG	
					UG	
			2001 , 2002		丽	
			2001			
			501801		2	
			1901			
					2	
			1903			
			2003 , 2001		丽	
				Node.js		
			1901			
				vue.js		
			1902	与	-Android	

2.B4 8 • œ^a %o û ë

-™ û ë ›-A , • > @B4,^o a %o û ëE^{1 3} , 80% @,^o • > •
œCz Ĩ ü = = • > • œ4à Á = • >B4 81x* < 1 • n?ú • œ ' f f , AÚ
-UCUCY , B4 8 • œ û ëE^{1 3} , fB4)½E^{1 Q} > ¬ c ? 34 *#!W,^o • œ^a
%o û ë" E¹⁰· 0 , • > • œAÚ-UCUCY , B4 81x* < ~ Ò³ , œ+U)ß •
p =—?ÿ1•)æB— , fB4)½95% @ , - %o?÷>ž 4 =>ž 5 >

4

				与会 与			
				与			
			2003				
			1903				
			501801				

			1902	SketchUp			
			2002	MySQL			
			2006	2			

5

1		2	5.88	
2		0	0	
3		14	41.17	
4		16	47.05	
5		2	5.88	

3.B4 84à Á û ë

œ+U @B4 ,]G <2ô/"M~BÂE¹ © ,73AÚ-U bB4 ,0% · ø D >+U È
 Þ ,B4 8"J"QE¹#qCù ,]G < *#4ÝB4 84à Á û ë C ï †?ø , 6 Ñ*#4Ý
 ,°B4 84à Á ? » oF ´ - %o?÷>ž 6 =>ž 7 μ >

6

						5	3
						7	
						8	17
						6	3
						12	
						15	

						7	
						8	5
						12	
						15	
						9	3
						8	
			1903				
				4			
			1901	RFID		5	9
			501801			12	
			1903				

2001

l! , 0Aä : Â4Ý • œL~G ?· Ö p • > B4 8CY 1 ù,° Ù V •6è , 3 =
• > @B44à Á Ž ^ ` a • > cFJ/ñ 6 • Ú = @B4)ß • p1• û ë , 0Aä
: Â4Ý • œL~G = Ô Ö p / • > n • œ û ë,° ö Â1x* < , - l Đ
- . ÊG L ?ú Đ L I Ü ,4é › a Ü5 ~69 n >

4 = œ+U1b 68, B4 D ñ 9 OF,°)æB— [H , 28* ?,°*#4Ý1b Â8,
B4 JM~0%5pB4 , 0AäL~G Â • >?·F 6!› Ö p1x* < >

5 = • œ ö ,)æ ÔAã Ú ?0µ MÁ =7 ù = ' C?ú991• û ë ,
0Aä • œL~G / ÔAã • œ?·F 6!› Ö p œ+U 0 b?ú99 = ' ç ž,° •
6è Ç / Ä & • !E¹ G,° ÔAã Ú , ` œ+U ^ ÔAã ' , , Ž ^ - œ
+U] P ^)ß • p û ë ,0 Aä • œL~G 4ú4ý • J Ú >* < AôAx ÔAã • œ »
ï >

6 = %o6èB4 • œ Ž ^E¹]L\$NÎ , AM _ ^O 8 • œ , _ ^ , ^
p ÷ EïEýF%o • œ ,P `*#4Ý Z ^)# E,° 6 ` p , • œ » ï , < Â F ,
• œC^H , < A ÷ , 0Aä 0.vG 5 > œ W,° ÔL{ û ë %o6èB4 • œ?
"x , • œ » ïAôAx p f ç È1• ïM~ • 35 1¯ ç È >

= • œ Á {FP Û

5 > 13 A ~ 3-4 8, ,+k 1903 *# ,° E+k † Ý ÷ ~F IFV ¶ e
ÔAã4 FB40A ,*#4Ý ð !p 41 ð , <4ú ÔAã , Ô f ð !p 17 ð , ^
B4,° ,L*!ë , 1B4 • > 7 67 > C ^ • Ú 13 < JÕ ´ 5 B9 e\$;&ï
ç .F7 ›,° ÔAã6M † µ , œ+U žG ^)ß • p >5 B L~ • u6Š c PAäAp
Að , 0Aä / 1B4 • > • 0 ?4Ý • œ Á { : * < , - < ÛB- œL~-. © PAä
x Đ > B : Â4Ý • œL~G F 6!› Ö p •6è • œ1x* < , K p H ,8 ?ÿ

5* Ú • œ0 Å , '5 !š2±)æB—,° +U ,.æ žL~ • œ!™ n ? Å 6 ‹ >

C^H 1x* < :

2021 ^a 6 > 14