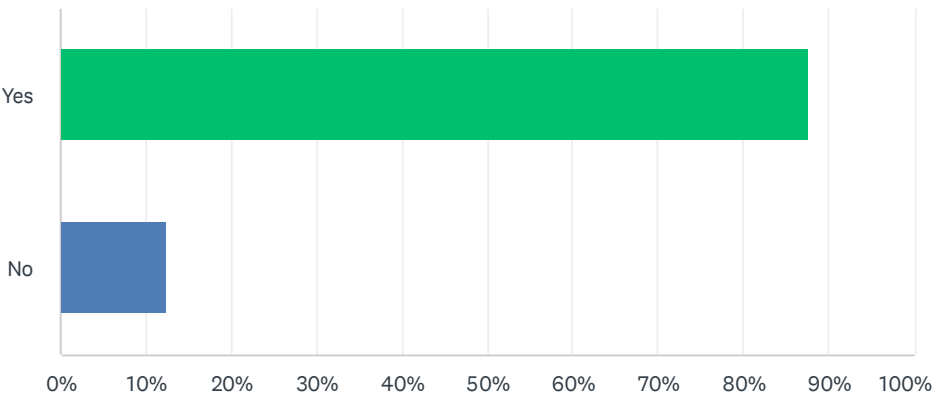


Q1 Does your company provide office space to its employees?

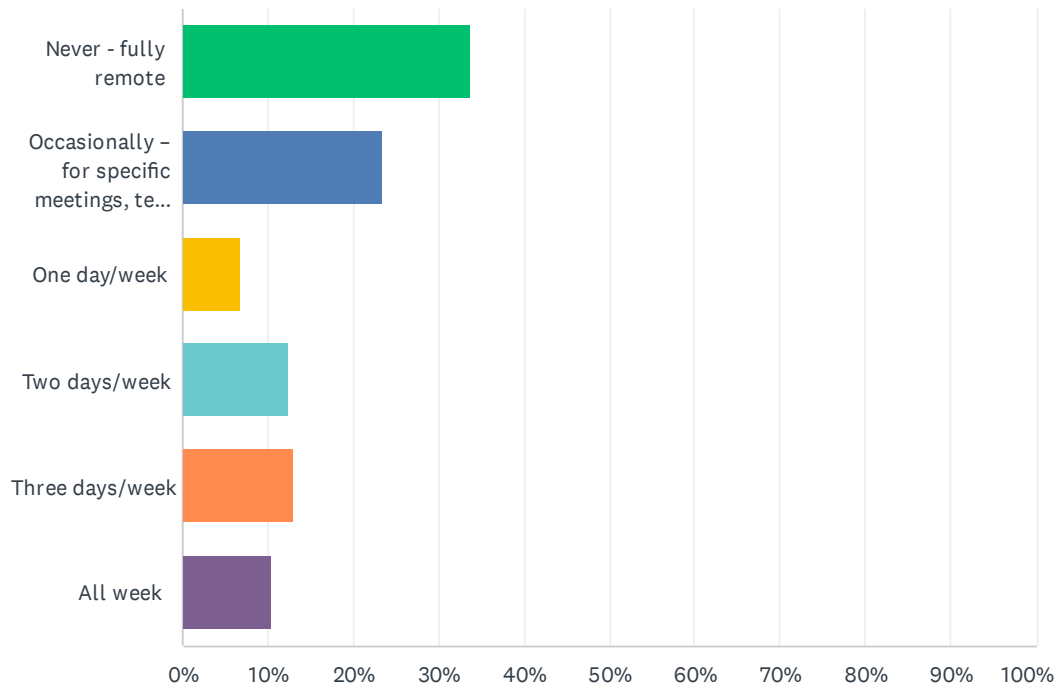
Answered: 145 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	87.59%	127
No	12.41%	18
TOTAL		145

Q2 How often do you go into an office?

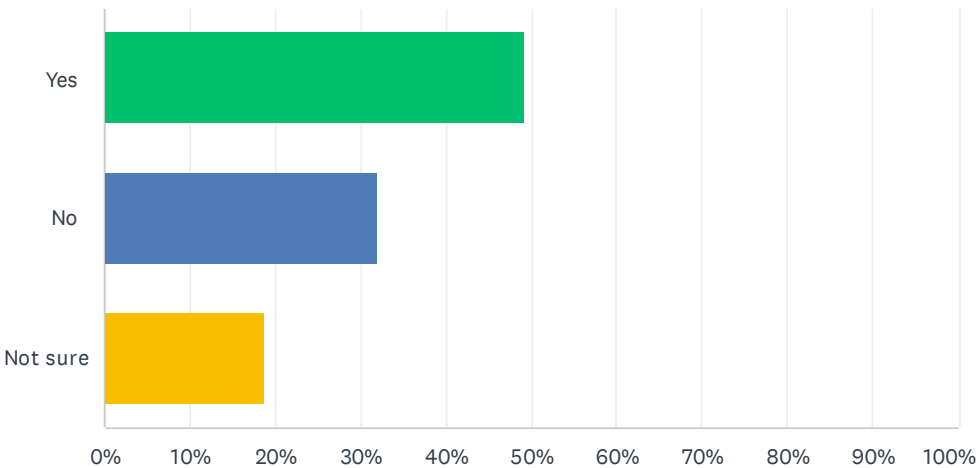
Answered: 145 Skipped: 0



ANSWER CHOICES	RESPONSES	
Never - fully remote	33.79%	49
Occasionally – for specific meetings, team activities. May include travel	23.45%	34
One day/week	6.90%	10
Two days/week	12.41%	18
Three days/week	13.10%	19
All week	10.34%	15
TOTAL		145

Q3 Does your company adjust pay based on location?

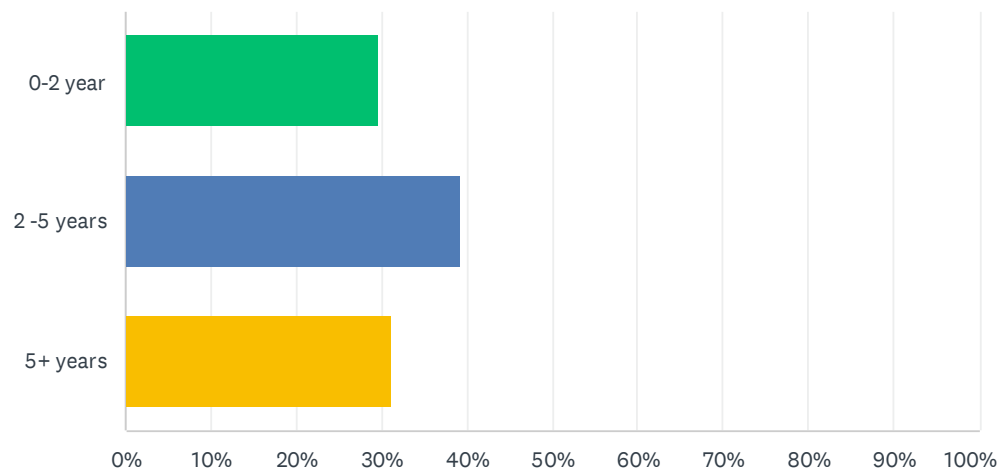
Answered: 144 Skipped: 1



ANSWER CHOICES	RESPONSES	
Yes	49.31%	71
No	31.94%	46
Not sure	18.75%	27
TOTAL		144

Q4 How long have you been working at your current company?

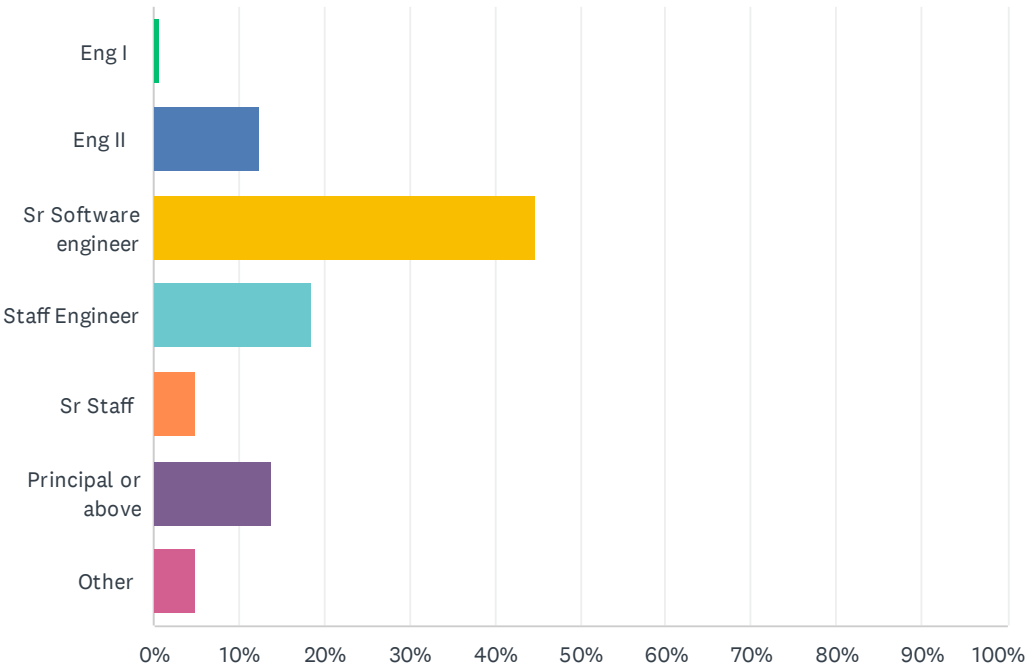
Answered: 145 Skipped: 0



ANSWER CHOICES		RESPONSES	
0-2 year		29.66%	43
2 -5 years		39.31%	57
5+ years		31.03%	45
TOTAL			145

Q5 What's your current role?

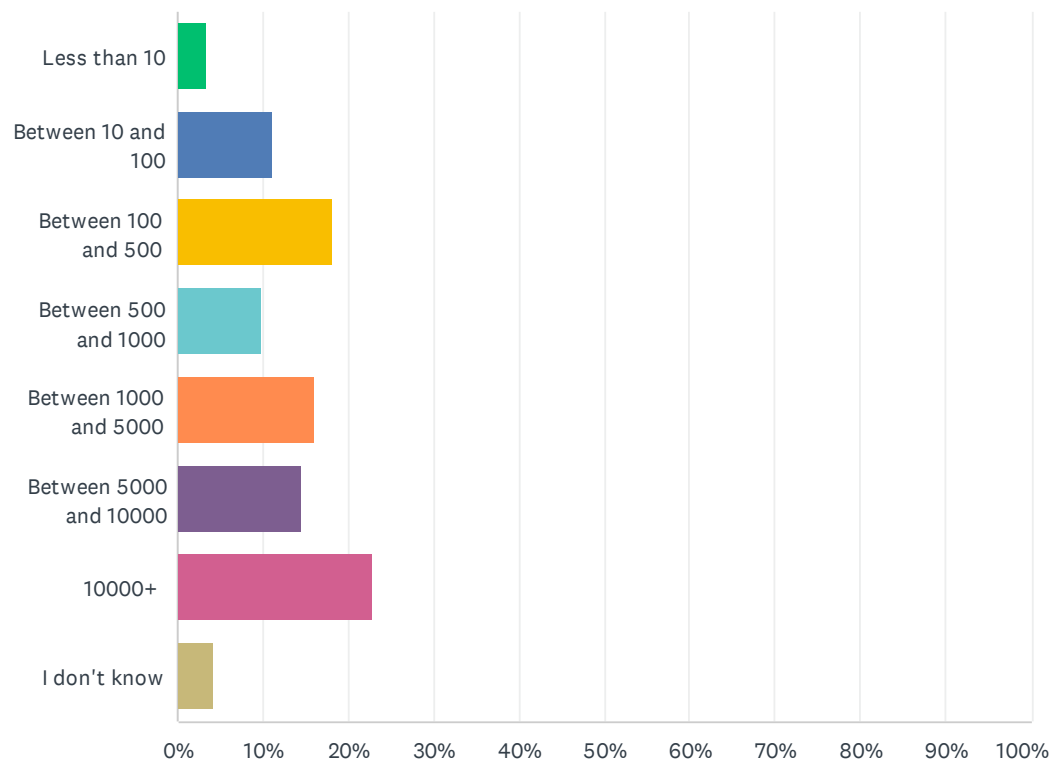
Answered: 145 Skipped: 0



ANSWER CHOICES	RESPONSES	
Eng I	0.69%	1
Eng II	12.41%	18
Sr Software engineer	44.83%	65
Staff Engineer	18.62%	27
Sr Staff	4.83%	7
Principal or above	13.79%	20
Other	4.83%	7
TOTAL		145

Q6 How many total employees does your company have?

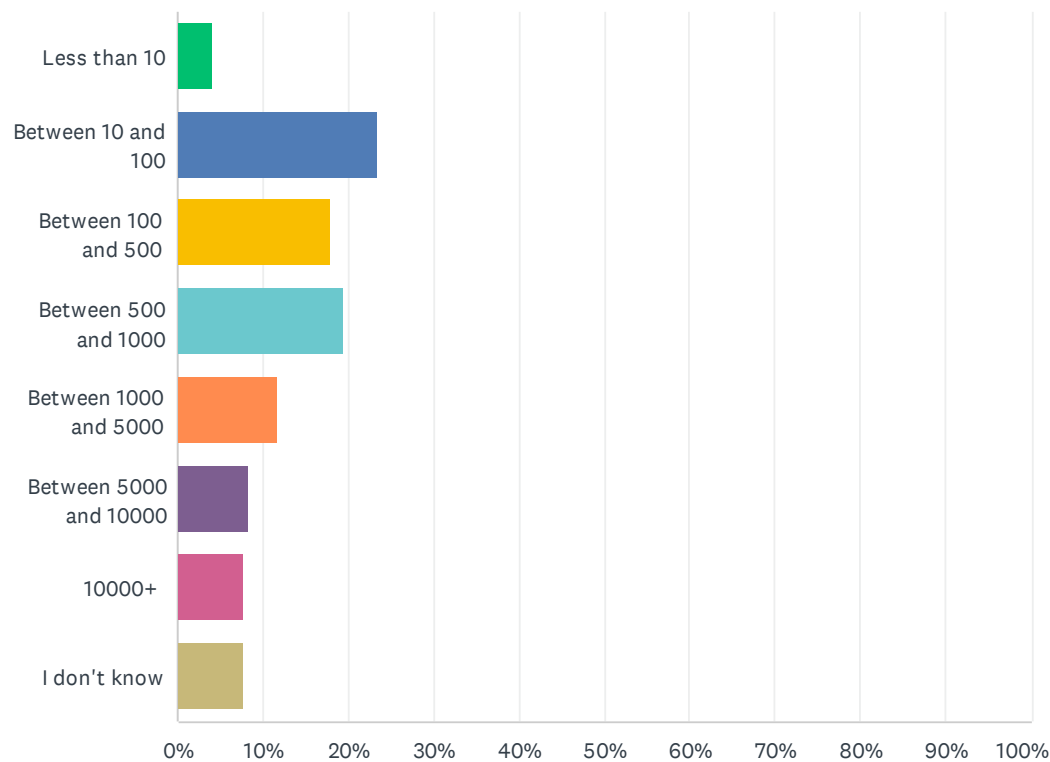
Answered: 144 Skipped: 1



ANSWER CHOICES	RESPONSES	
Less than 10	3.47%	5
Between 10 and 100	11.11%	16
Between 100 and 500	18.06%	26
Between 500 and 1000	9.72%	14
Between 1000 and 5000	15.97%	23
Between 5000 and 10000	14.58%	21
10000+	22.92%	33
I don't know	4.17%	6
TOTAL		144

Q7 How many total engineers does your company have?

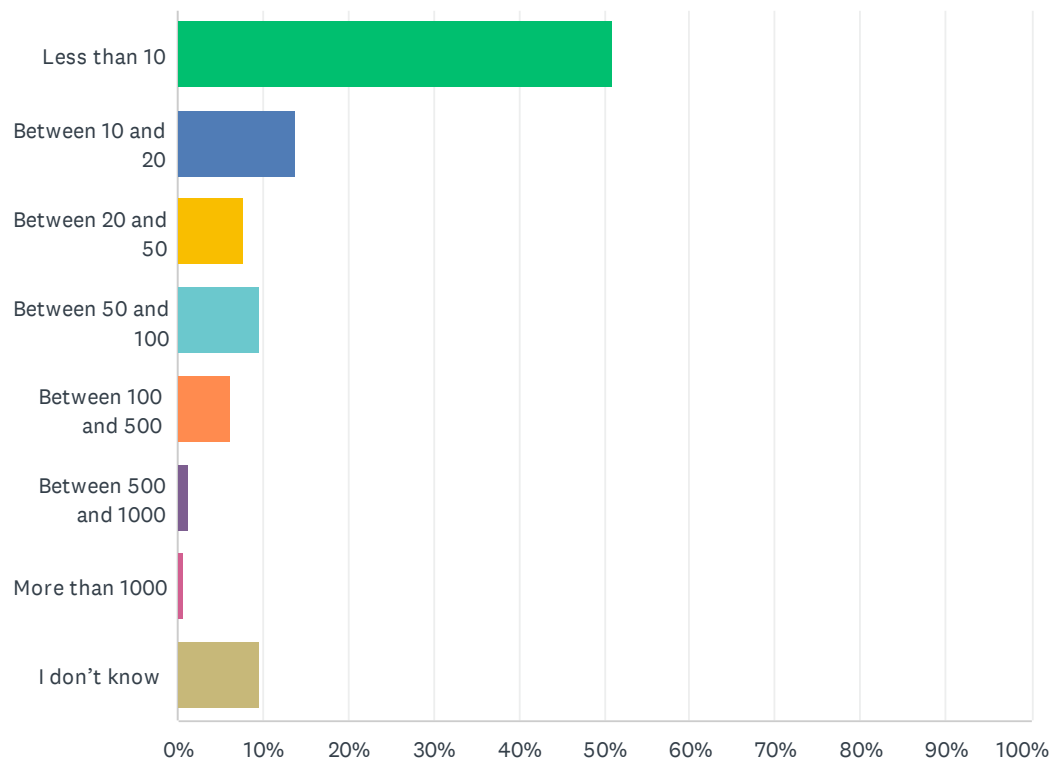
Answered: 145 Skipped: 0



ANSWER CHOICES	RESPONSES	
Less than 10	4.14%	6
Between 10 and 100	23.45%	34
Between 100 and 500	17.93%	26
Between 500 and 1000	19.31%	28
Between 1000 and 5000	11.72%	17
Between 5000 and 10000	8.28%	12
10000+	7.59%	11
I don't know	7.59%	11
TOTAL		145

Q8 How many platform/infrastructure mobile engineers does your company have?

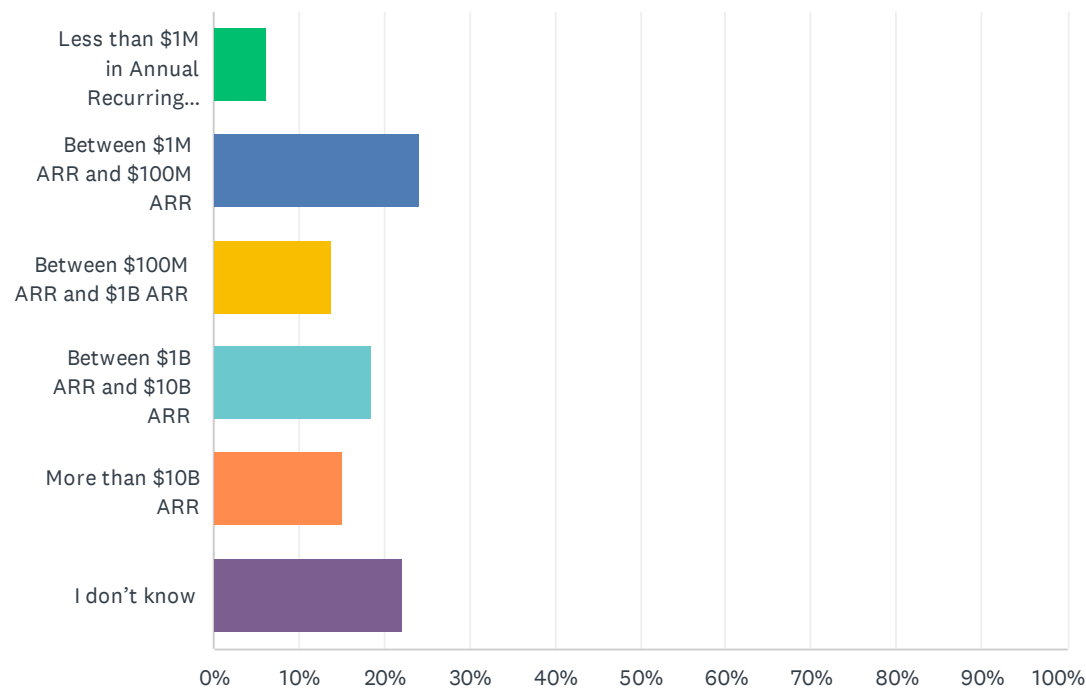
Answered: 145 Skipped: 0



ANSWER CHOICES	RESPONSES	
Less than 10	51.03%	74
Between 10 and 20	13.79%	20
Between 20 and 50	7.59%	11
Between 50 and 100	9.66%	14
Between 100 and 500	6.21%	9
Between 500 and 1000	1.38%	2
More than 1000	0.69%	1
I don't know	9.66%	14
TOTAL		145

Q9 How big is your company, from a revenue perspective?

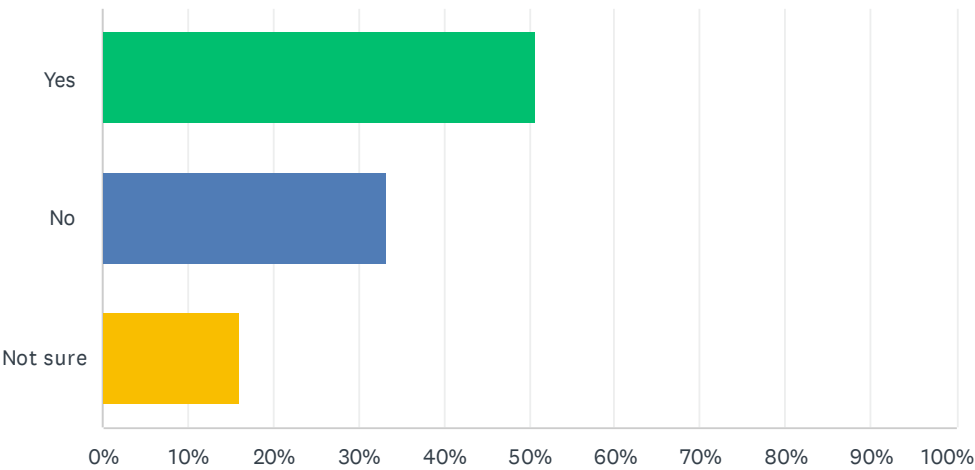
Answered: 145 Skipped: 0



ANSWER CHOICES	RESPONSES	
Less than \$1M in Annual Recurring Revenue (ARR)	6.21%	9
Between \$1M ARR and \$100M ARR	24.14%	35
Between \$100M ARR and \$1B ARR	13.79%	20
Between \$1B ARR and \$10B ARR	18.62%	27
More than \$10B ARR	15.17%	22
I don't know	22.07%	32
TOTAL		145

Q10 Do you consider your company to be engineering driven?

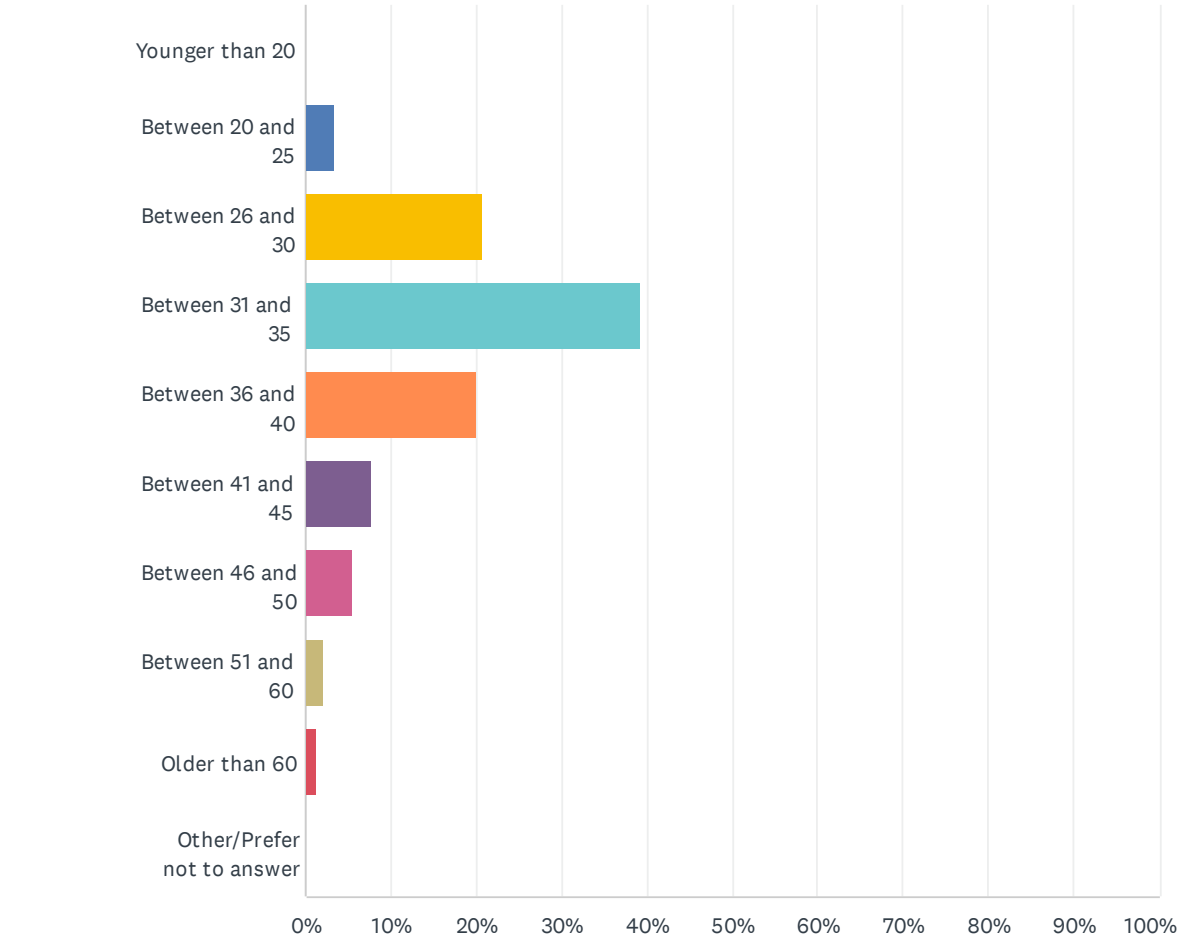
Answered: 144 Skipped: 1



ANSWER CHOICES	RESPONSES	
Yes	50.69%	73
No	33.33%	48
Not sure	15.97%	23
TOTAL		144

Q11 How old are you?

Answered: 145 Skipped: 0

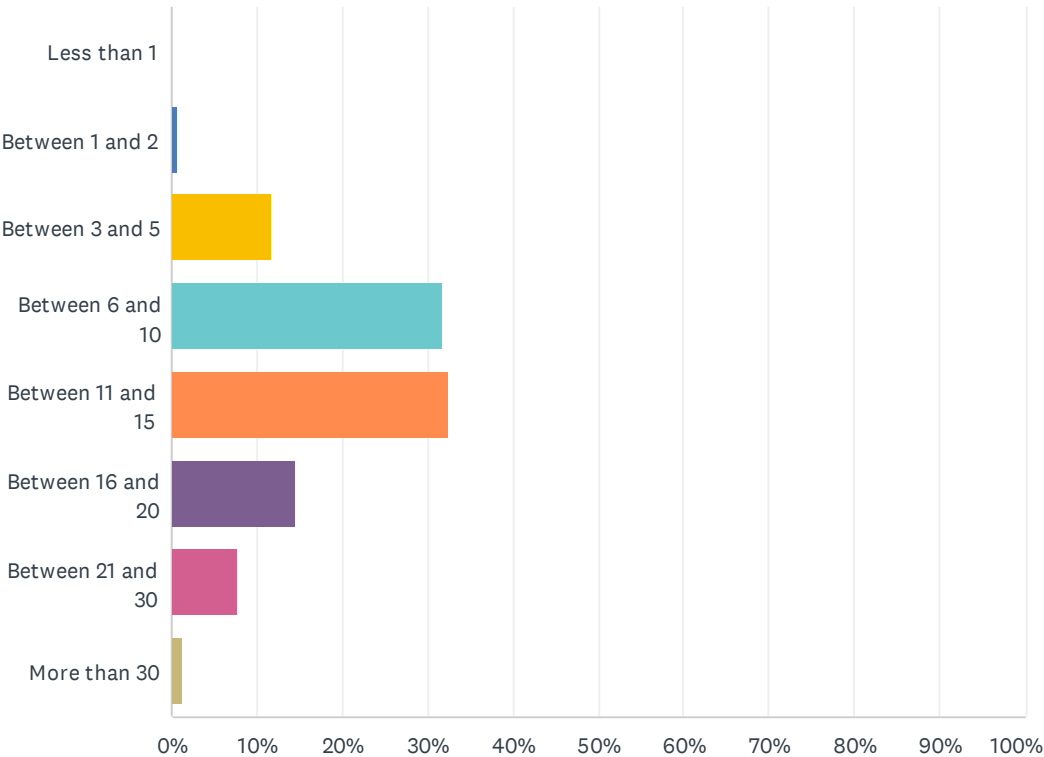


MNF Mobile Ecosystem Survey 2023

ANSWER CHOICES	RESPONSES	
Younger than 20	0.00%	0
Between 20 and 25	3.45%	5
Between 26 and 30	20.69%	30
Between 31 and 35	39.31%	57
Between 36 and 40	20.00%	29
Between 41 and 45	7.59%	11
Between 46 and 50	5.52%	8
Between 51 and 60	2.07%	3
Older than 60	1.38%	2
Other/Prefer not to answer	0.00%	0
TOTAL		145

Q12 How many years have you been a software engineer?

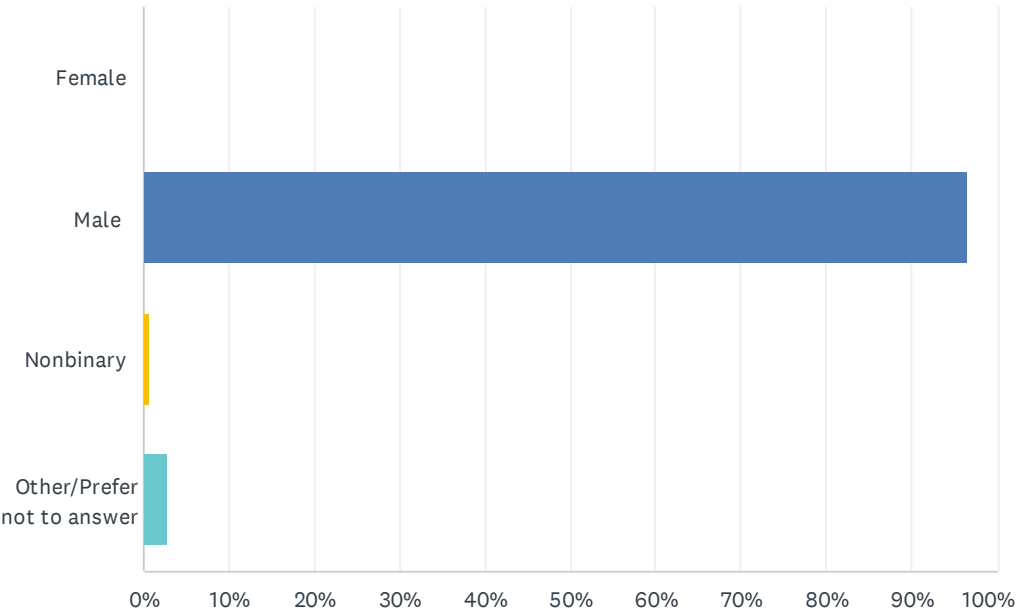
Answered: 145 Skipped: 0



ANSWER CHOICES	RESPONSES	
Less than 1	0.00%	0
Between 1 and 2	0.69%	1
Between 3 and 5	11.72%	17
Between 6 and 10	31.72%	46
Between 11 and 15	32.41%	47
Between 16 and 20	14.48%	21
Between 21 and 30	7.59%	11
More than 30	1.38%	2
TOTAL		145

Q13 What is your gender?

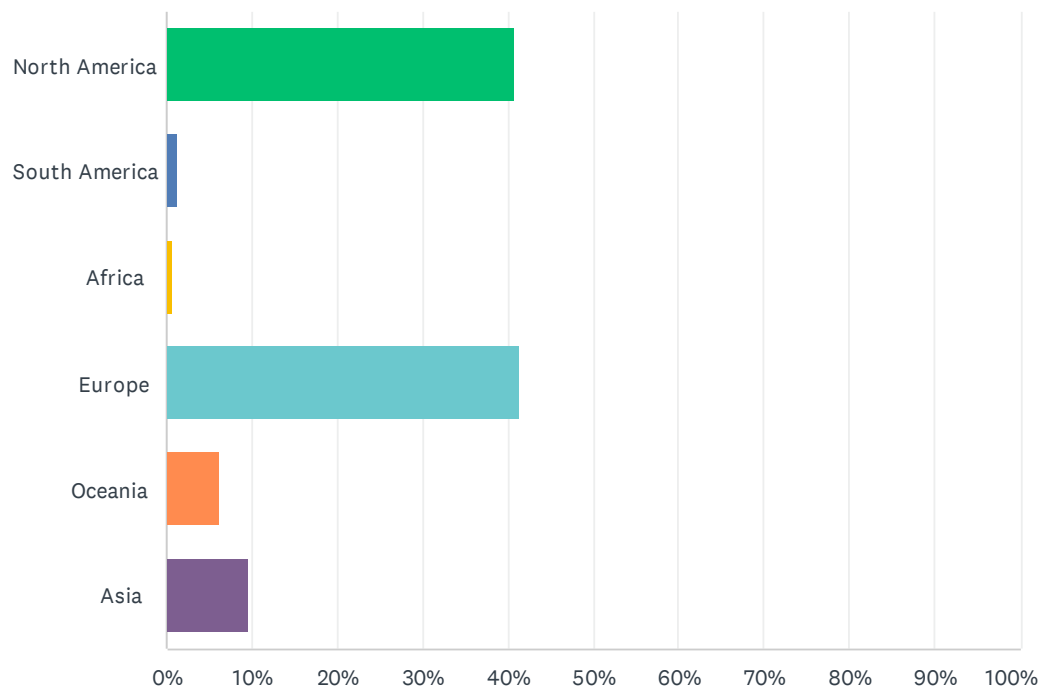
Answered: 145 Skipped: 0



ANSWER CHOICES	RESPONSES	
Female	0.00%	0
Male	96.55%	140
Nonbinary	0.69%	1
Other/Prefer not to answer	2.76%	4
TOTAL		145

Q14 Where are you located?

Answered: 145 Skipped: 0



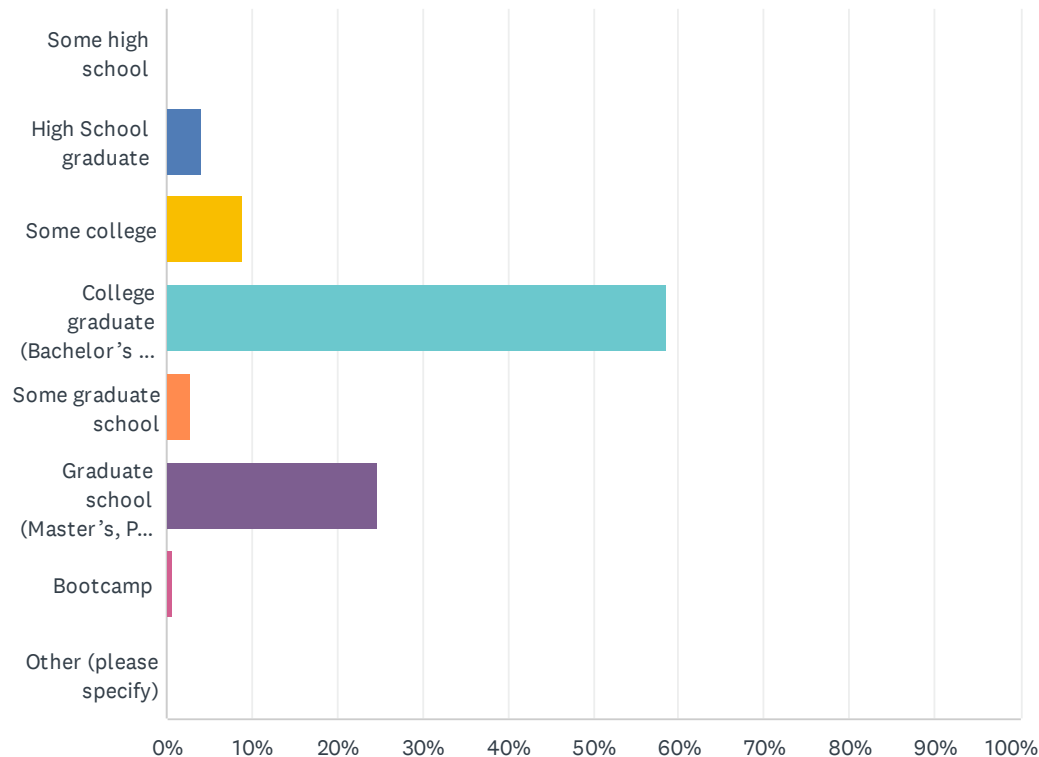
ANSWER CHOICES	RESPONSES	
North America	40.69%	59
South America	1.38%	2
Africa	0.69%	1
Europe	41.38%	60
Oceania	6.21%	9
Asia	9.66%	14
TOTAL		145

Q15 Which city?

Answered: 117 Skipped: 28

Q16 What is your highest level of education?

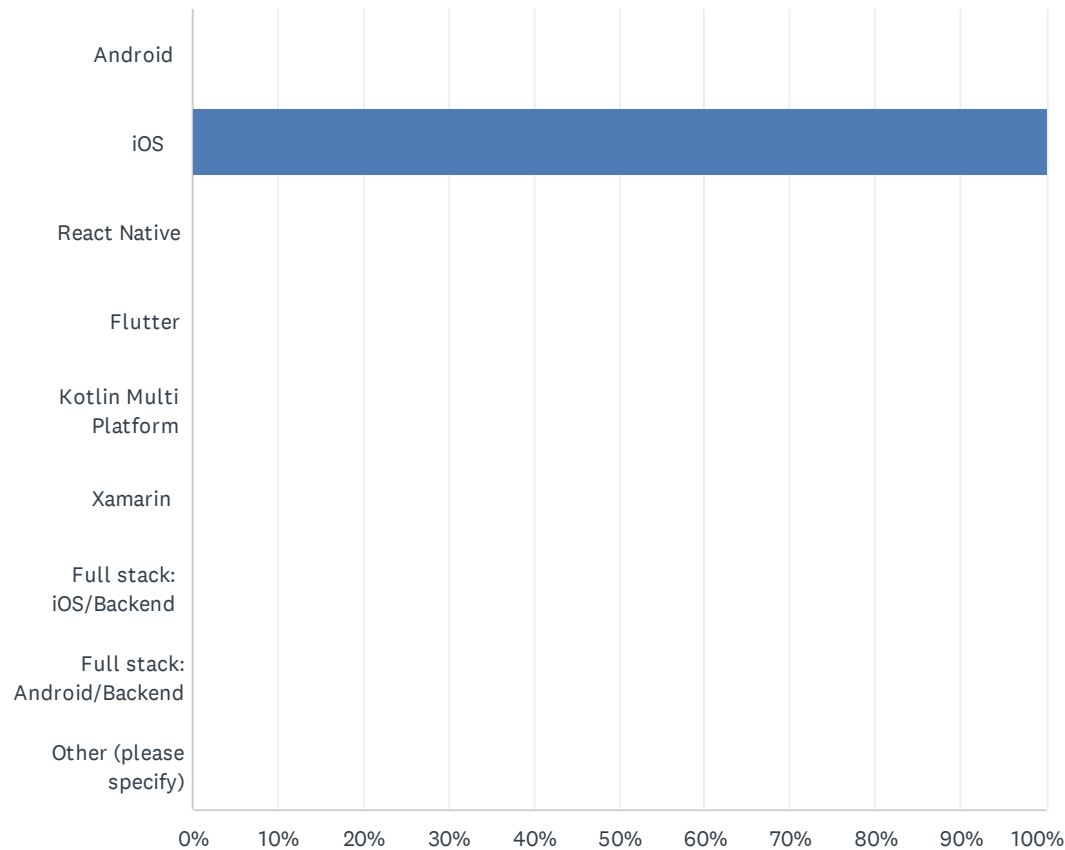
Answered: 145 Skipped: 0



ANSWER CHOICES	RESPONSES	
Some high school	0.00%	0
High School graduate	4.14%	6
Some college	8.97%	13
College graduate (Bachelor's or equivalent)	58.62%	85
Some graduate school	2.76%	4
Graduate school (Master's, PHD, or equivalent)	24.83%	36
Bootcamp	0.69%	1
Other (please specify)	0.00%	0
TOTAL		145

Q17 What platform do you primarily work on?

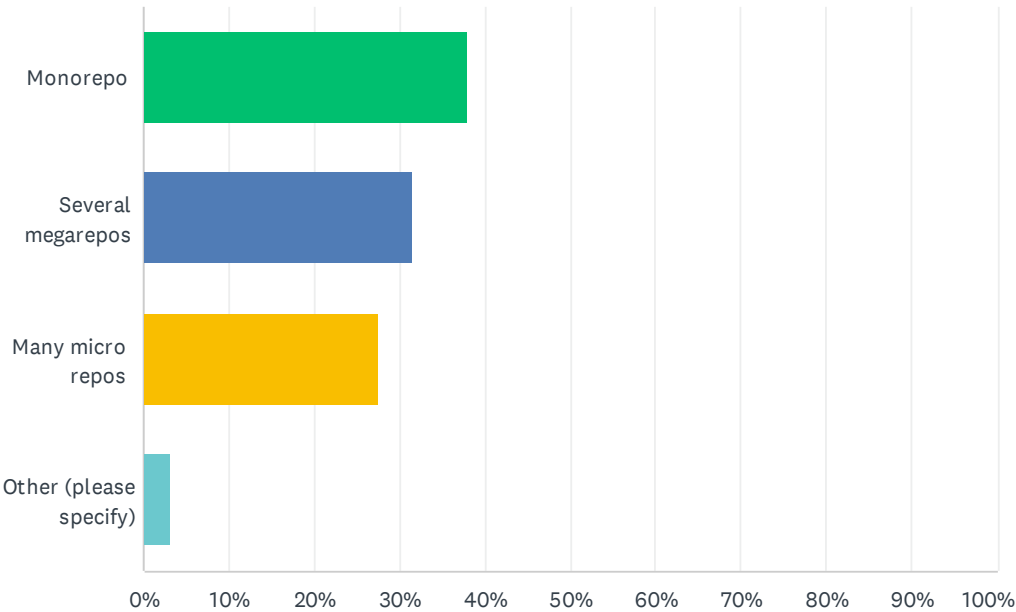
Answered: 145 Skipped: 0



ANSWER CHOICES	RESPONSES	
Android	0.00%	0
iOS	100.00%	145
React Native	0.00%	0
Flutter	0.00%	0
Kotlin Multi Platform	0.00%	0
Xamarin	0.00%	0
Full stack: iOS/Backend	0.00%	0
Full stack: Android/Backend	0.00%	0
Other (please specify)	0.00%	0
TOTAL		145

Q18 How does your company organize code?

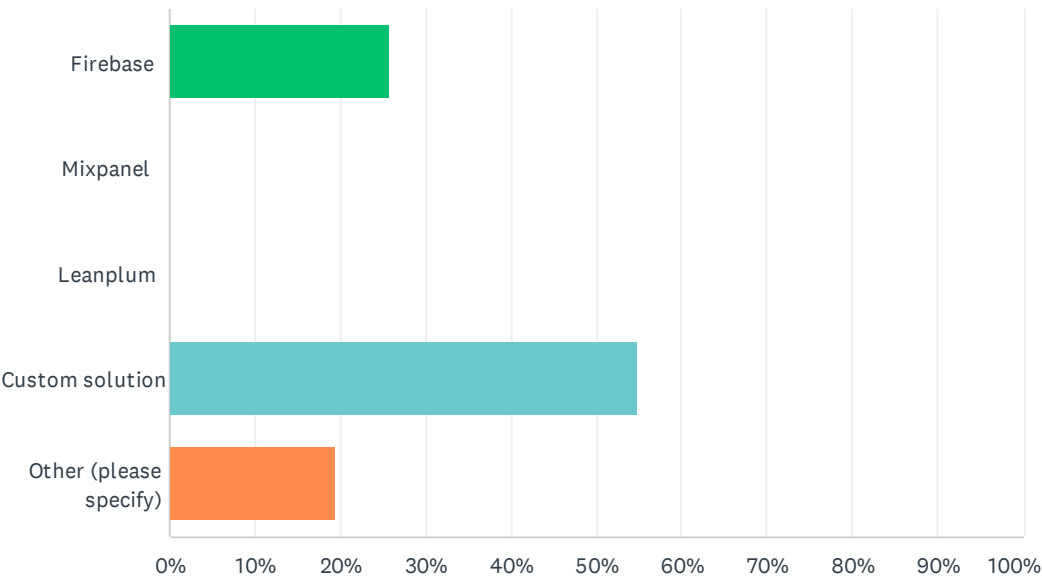
Answered: 124 Skipped: 21



ANSWER CHOICES	RESPONSES	
Monorepo	37.90%	47
Several megarepos	31.45%	39
Many micro repos	27.42%	34
Other (please specify)	3.23%	4
TOTAL		124

Q19 How do you handle A/B testing and/or feature flags?

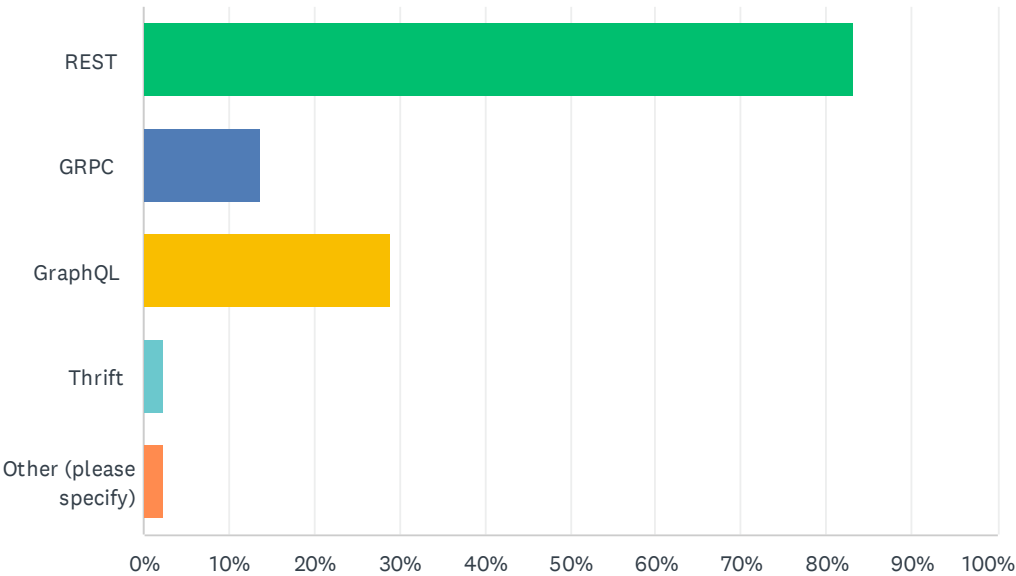
Answered: 124 Skipped: 21



ANSWER CHOICES	RESPONSES	
Firebase	25.81%	32
Mixpanel	0.00%	0
Leanplum	0.00%	0
Custom solution	54.84%	68
Other (please specify)	19.35%	24
TOTAL		124

Q20 How do you send data to your application from your servers?

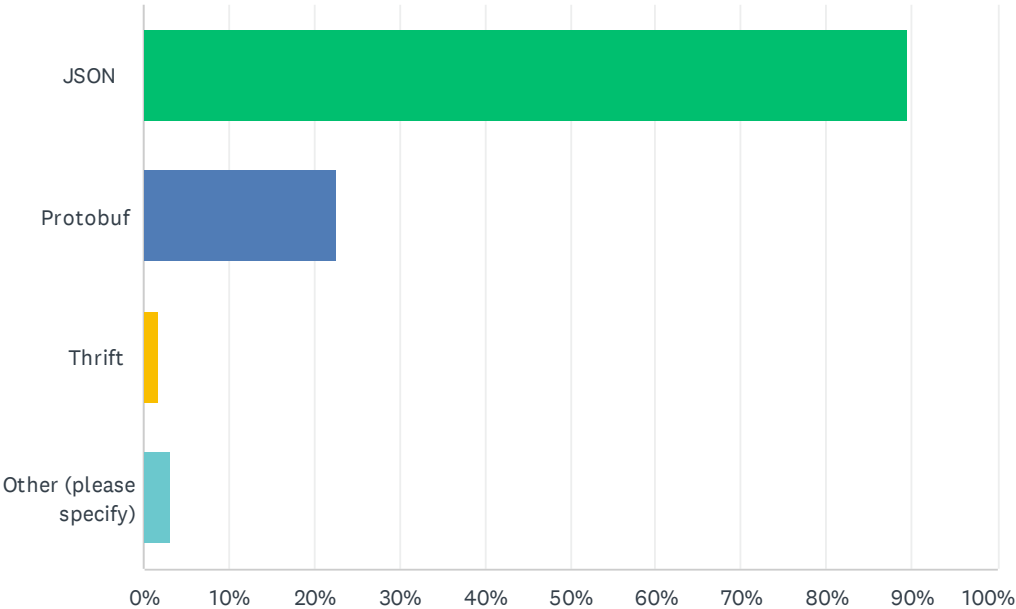
Answered: 124 Skipped: 21



ANSWER CHOICES	RESPONSES	
REST	83.06%	103
GRPC	13.71%	17
GraphQL	29.03%	36
Thrift	2.42%	3
Other (please specify)	2.42%	3
Total Respondents: 124		

Q21 How is data formatted on the wire between your application and your servers?

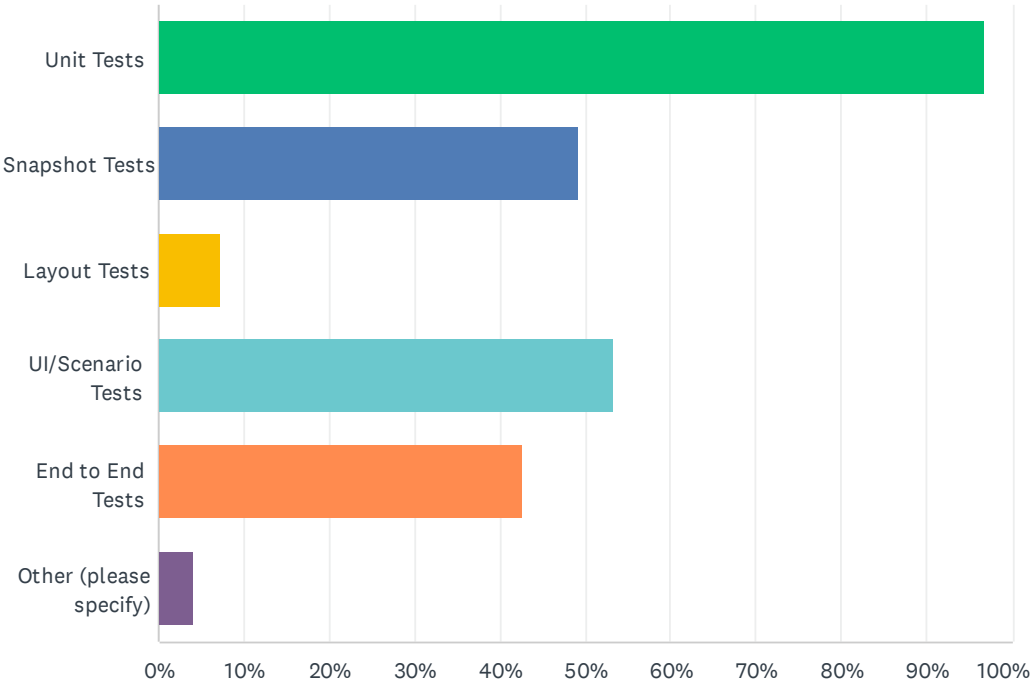
Answered: 124 Skipped: 21



ANSWER CHOICES	RESPONSES	
JSON	89.52%	111
Protobuf	22.58%	28
Thrift	1.61%	2
Other (please specify)	3.23%	4
Total Respondents: 124		

Q22 How do you automate testing of your application?

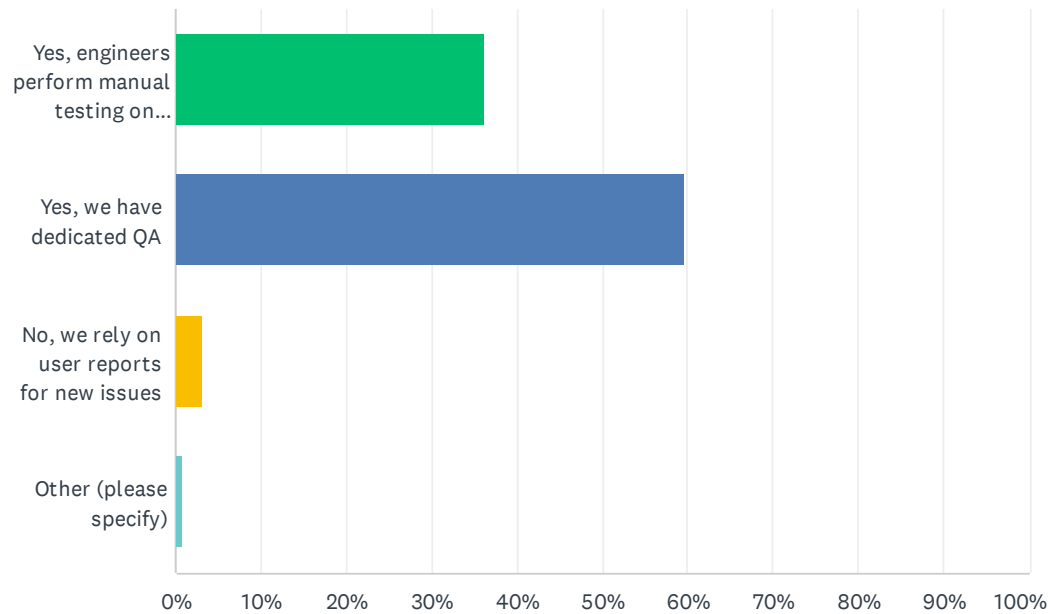
Answered: 124 Skipped: 21



ANSWER CHOICES	RESPONSES	
Unit Tests	96.77%	120
Snapshot Tests	49.19%	61
Layout Tests	7.26%	9
UI/Scenario Tests	53.23%	66
End to End Tests	42.74%	53
Other (please specify)	4.03%	5
Total Respondents: 124		

Q23 Do you perform manual testing?

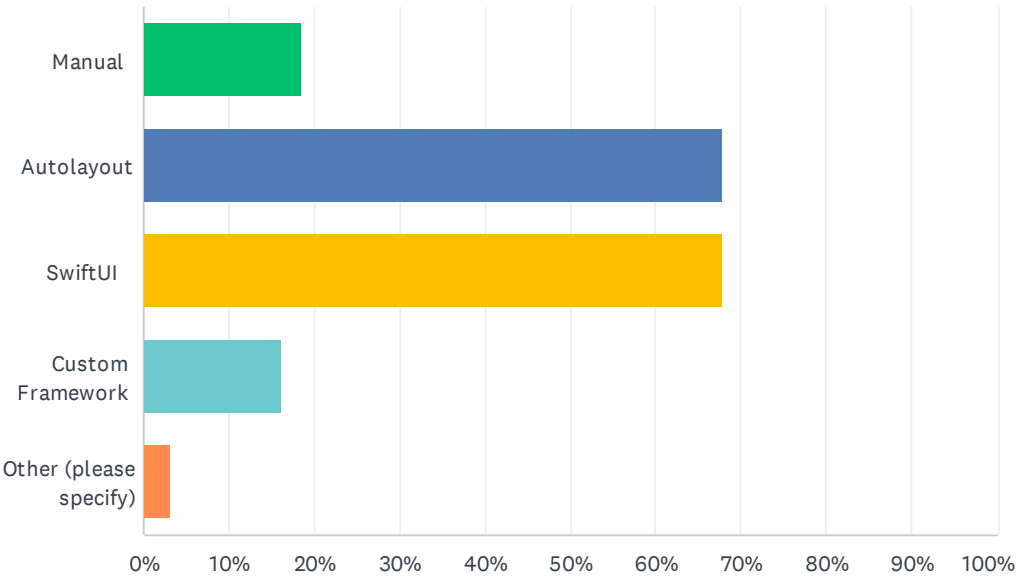
Answered: 124 Skipped: 21



ANSWER CHOICES	RESPONSES	
Yes, engineers perform manual testing on their work	36.29%	45
Yes, we have dedicated QA	59.68%	74
No, we rely on user reports for new issues	3.23%	4
Other (please specify)	0.81%	1
TOTAL		124

Q24 [iOS Only] How do you typically build UI layouts?

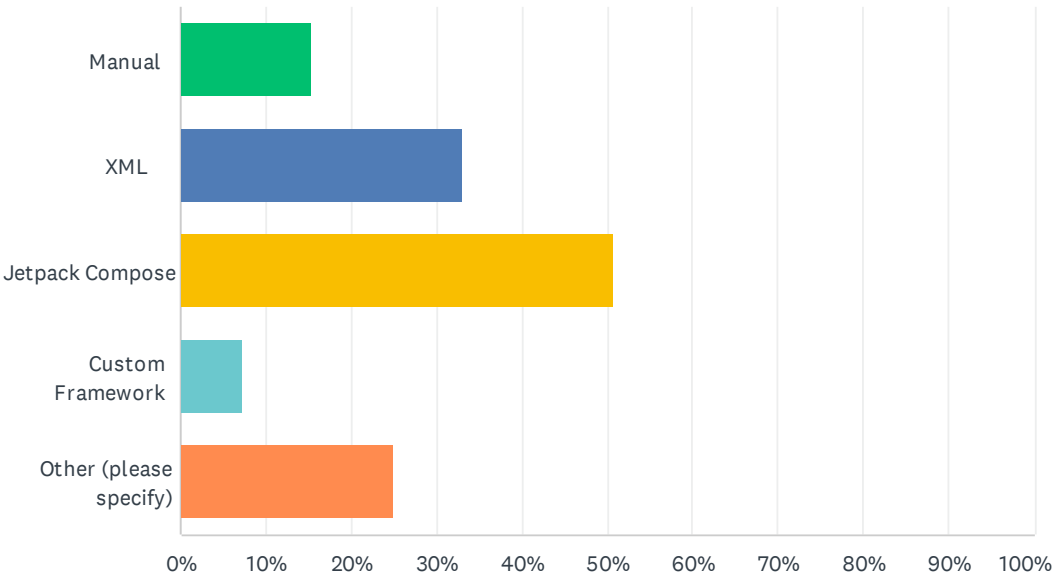
Answered: 124 Skipped: 21



ANSWER CHOICES	RESPONSES	
Manual	18.55%	23
Autolayout	67.74%	84
SwiftUI	67.74%	84
Custom Framework	16.13%	20
Other (please specify)	3.23%	4
Total Respondents: 124		

Q25 [Android Only] How do you typically build UI layouts?

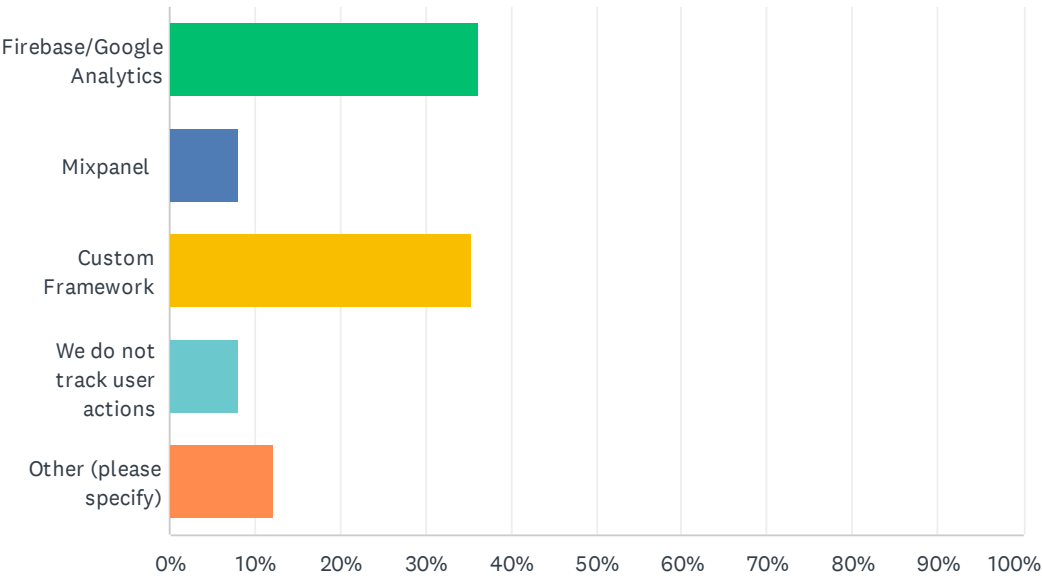
Answered: 124 Skipped: 21



ANSWER CHOICES	RESPONSES	
Manual	15.32%	19
XML	33.06%	41
Jetpack Compose	50.81%	63
Custom Framework	7.26%	9
Other (please specify)	25.00%	31
Total Respondents: 124		

Q26 How do you track user actions in your application?

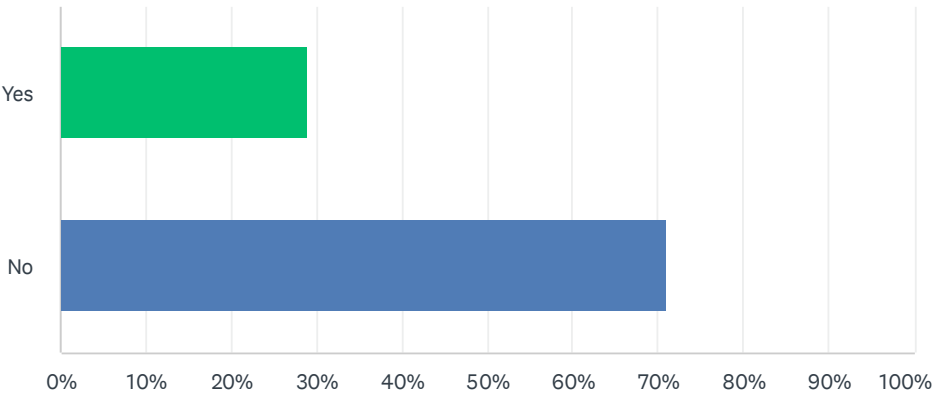
Answered: 124 Skipped: 21



ANSWER CHOICES	RESPONSES	
Firebase/Google Analytics	36.29%	45
Mixpanel	8.06%	10
Custom Framework	35.48%	44
We do not track user actions	8.06%	10
Other (please specify)	12.10%	15
TOTAL		124

Q27 Do you measure developer productivity?

Answered: 124 Skipped: 21



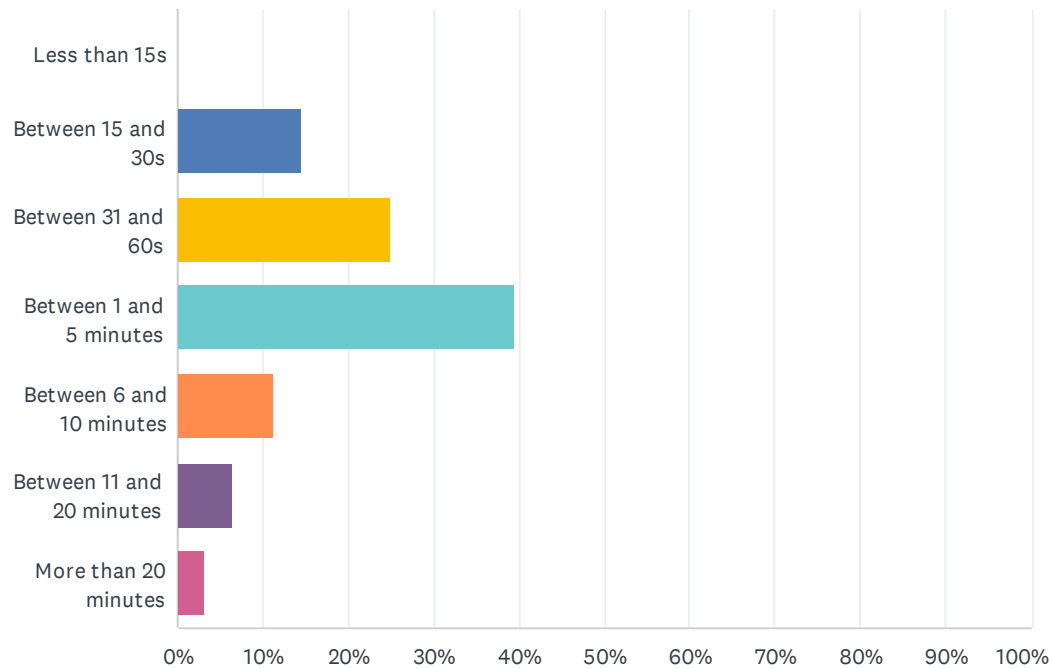
ANSWER CHOICES	RESPONSES	
Yes	29.03%	36
No	70.97%	88
TOTAL		124

Q28 If yes, what's the most important developer productivity metric you track?

Answered: 26 Skipped: 119

Q29 What are your average local build times?

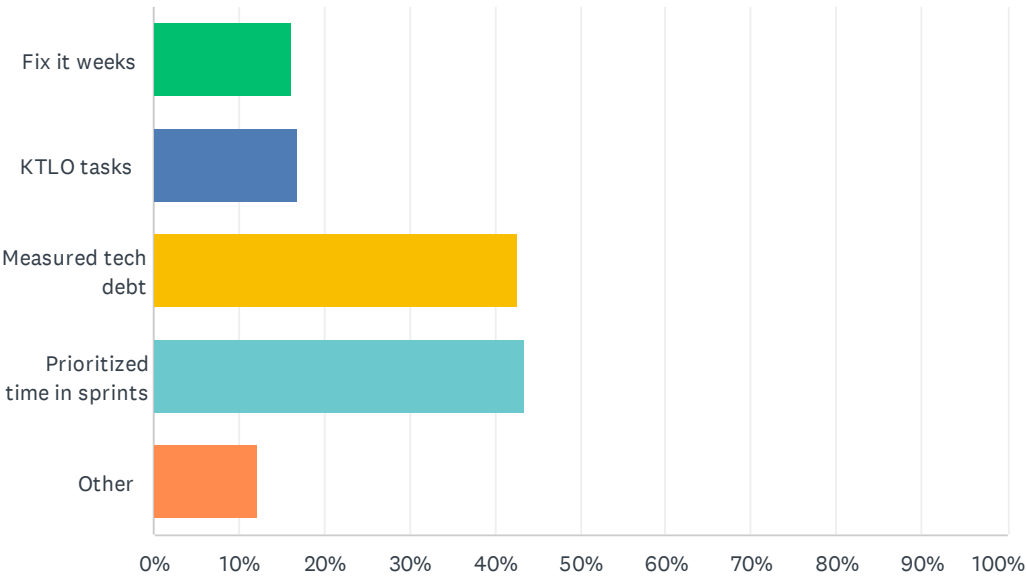
Answered: 124 Skipped: 21



ANSWER CHOICES		RESPONSES	
Less than 15s		0.00%	0
Between 15 and 30s		14.52%	18
Between 31 and 60s		25.00%	31
Between 1 and 5 minutes		39.52%	49
Between 6 and 10 minutes		11.29%	14
Between 11 and 20 minutes		6.45%	8
More than 20 minutes		3.23%	4
TOTAL			124

Q30 What practices do you employ to address code quality?

Answered: 124 Skipped: 21



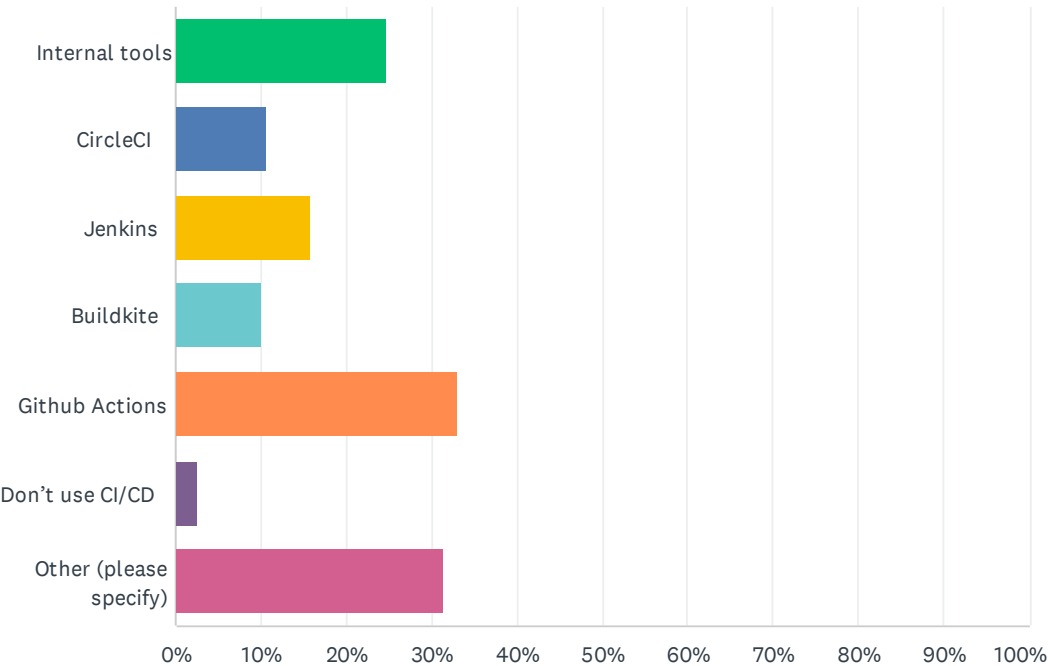
ANSWER CHOICES		RESPONSES	
Fix it weeks		16.13%	20
KTLO tasks		16.94%	21
Measured tech debt		42.74%	53
Prioritized time in sprints		43.55%	54
Other		12.10%	15
Total Respondents: 124			

Q31 List the most useful open source libraries/tools you use on a daily basis.

Answered: 51 Skipped: 94

Q32 What do you use for CI/CD?

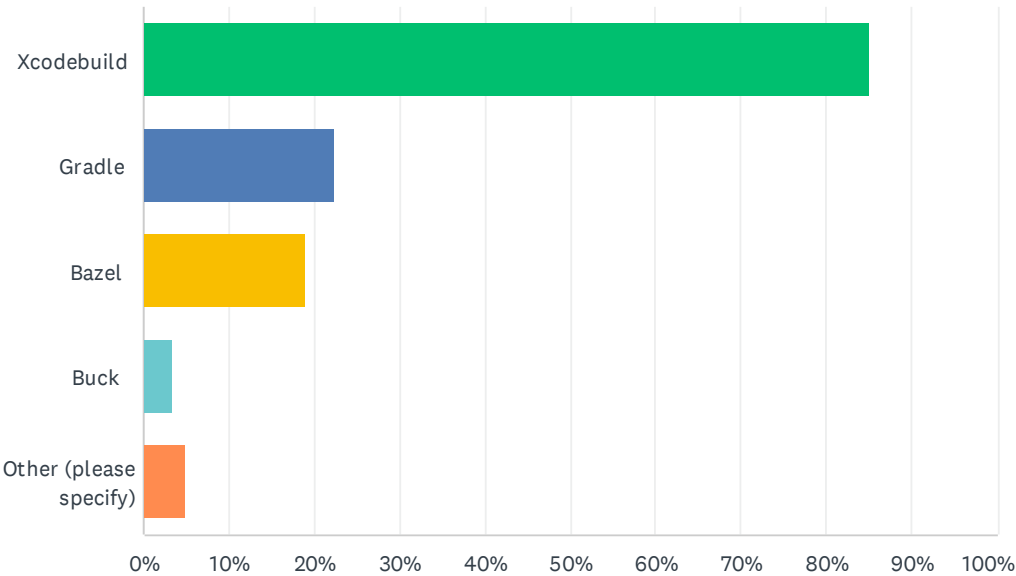
Answered: 121 Skipped: 24



ANSWER CHOICES	RESPONSES	
Internal tools	24.79%	30
CircleCI	10.74%	13
Jenkins	15.70%	19
Buildkite	9.92%	12
Github Actions	33.06%	40
Don't use CI/CD	2.48%	3
Other (please specify)	31.40%	38
Total Respondents: 121		

Q33 What build system do you use?

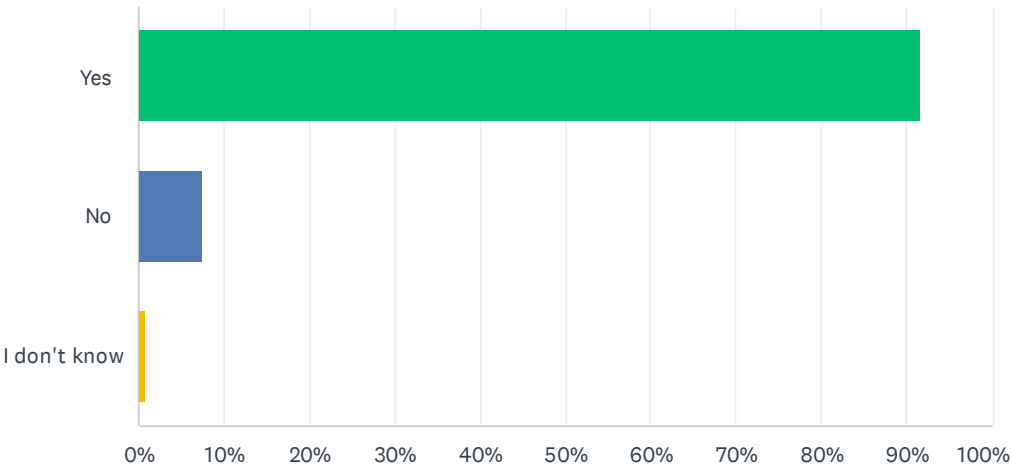
Answered: 121 Skipped: 24



ANSWER CHOICES		RESPONSES	
Xcodebuild		85.12%	103
Gradle		22.31%	27
Bazel		19.01%	23
Buck		3.31%	4
Other (please specify)		4.96%	6
Total Respondents: 121			

Q34 Is your code run through a linter, or checkstyle?

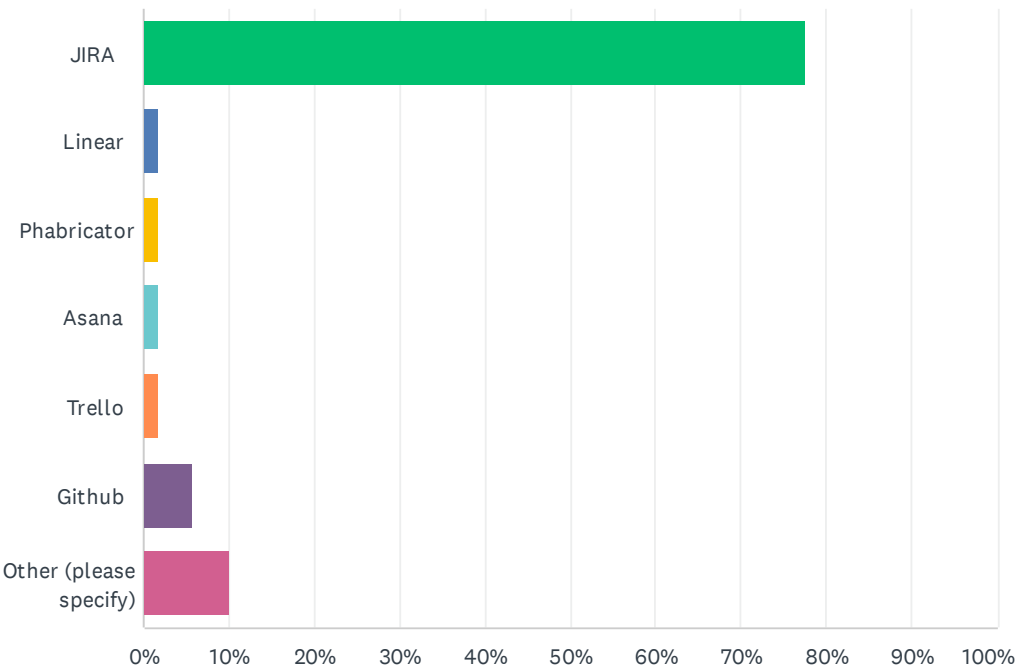
Answered: 121 Skipped: 24



ANSWER CHOICES	RESPONSES	
Yes	91.74%	111
No	7.44%	9
I don't know	0.83%	1
TOTAL		121

Q35 How does your company track issues and tasks?

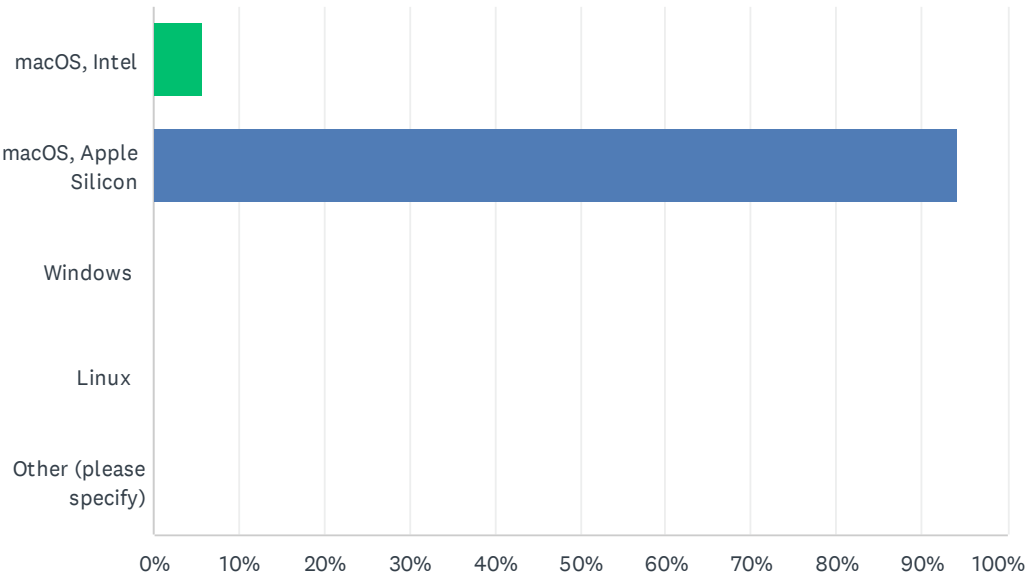
Answered: 121 Skipped: 24



ANSWER CHOICES	RESPONSES	
JIRA	77.69%	94
Linear	1.65%	2
Phabricator	1.65%	2
Asana	1.65%	2
Trello	1.65%	2
Github	5.79%	7
Other (please specify)	9.92%	12
TOTAL		121

Q36 What kind of machine do you primarily use for development?

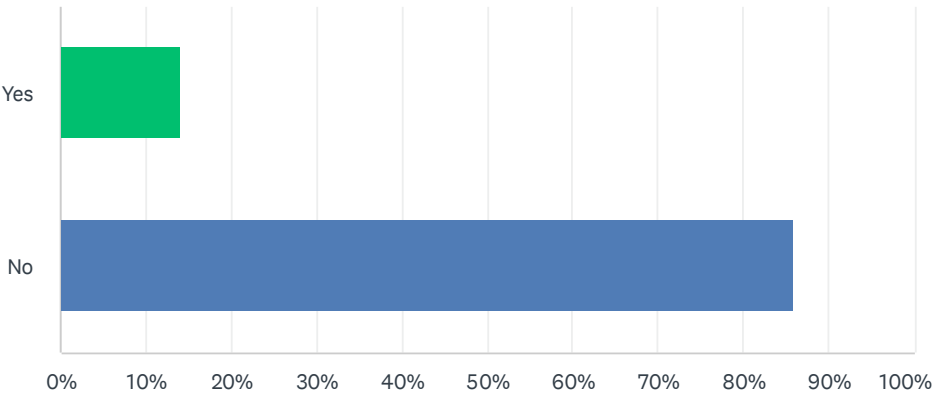
Answered: 121 Skipped: 24



ANSWER CHOICES	RESPONSES	
macOS, Intel	5.79%	7
macOS, Apple Silicon	94.21%	114
Windows	0.00%	0
Linux	0.00%	0
Other (please specify)	0.00%	0
TOTAL		121

Q37 Do you work on more than one machine at the same time?

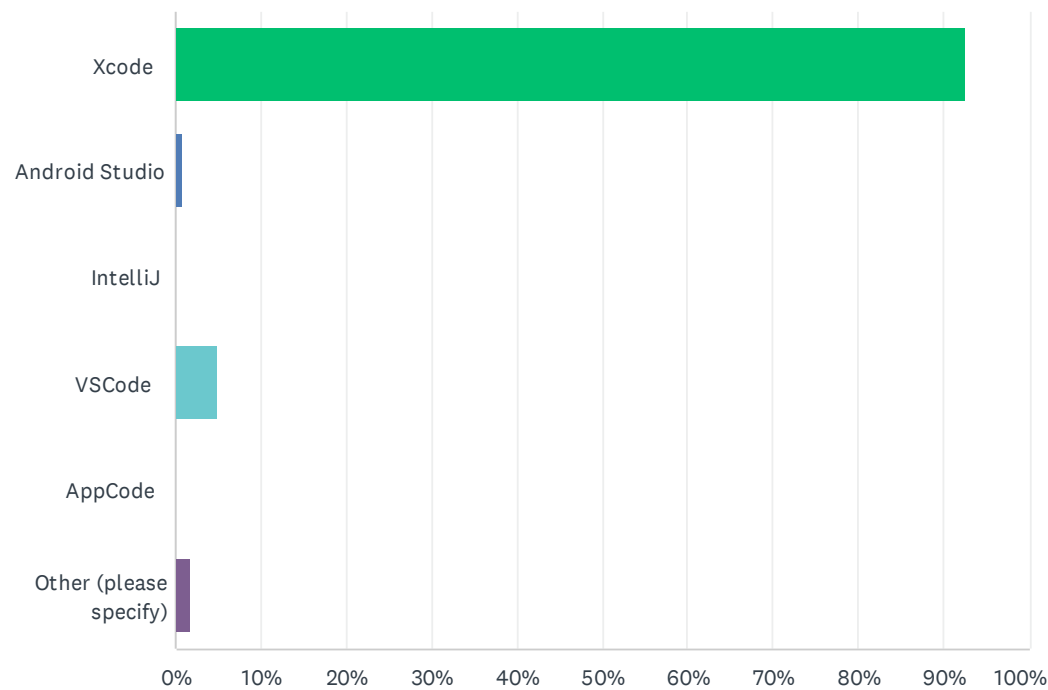
Answered: 121 Skipped: 24



ANSWER CHOICES	RESPONSES	
Yes	14.05%	17
No	85.95%	104
TOTAL		121

Q38 What is your primary IDE?

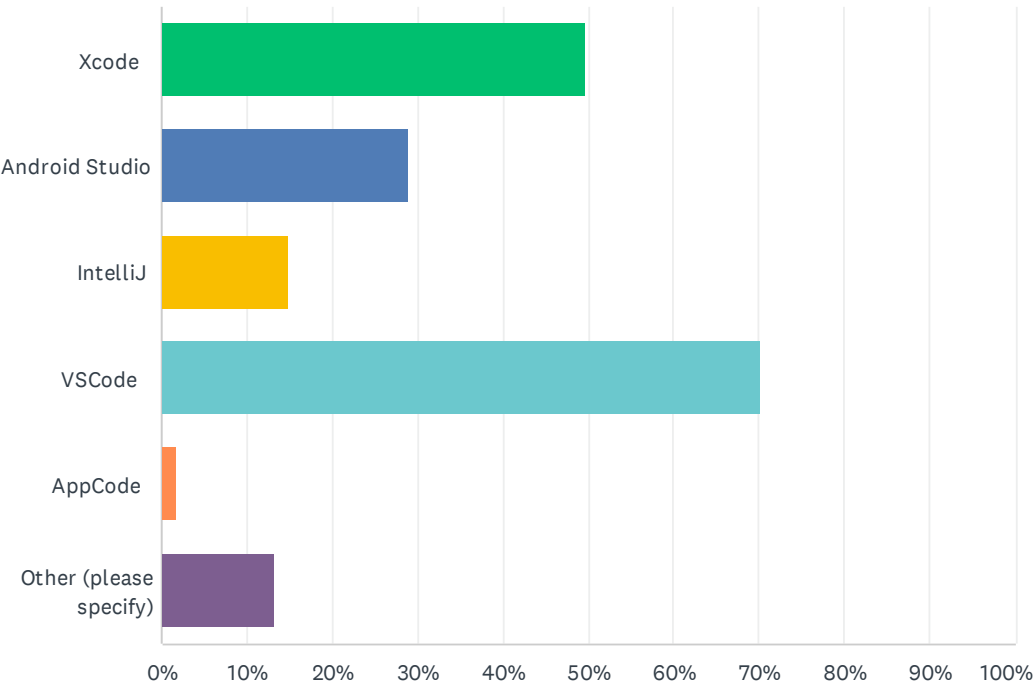
Answered: 121 Skipped: 24



ANSWER CHOICES	RESPONSES	
Xcode	92.56%	112
Android Studio	0.83%	1
IntelliJ	0.00%	0
VSCode	4.96%	6
AppCode	0.00%	0
Other (please specify)	1.65%	2
TOTAL		121

Q39 What other IDEs do you use (choose your top 3)?

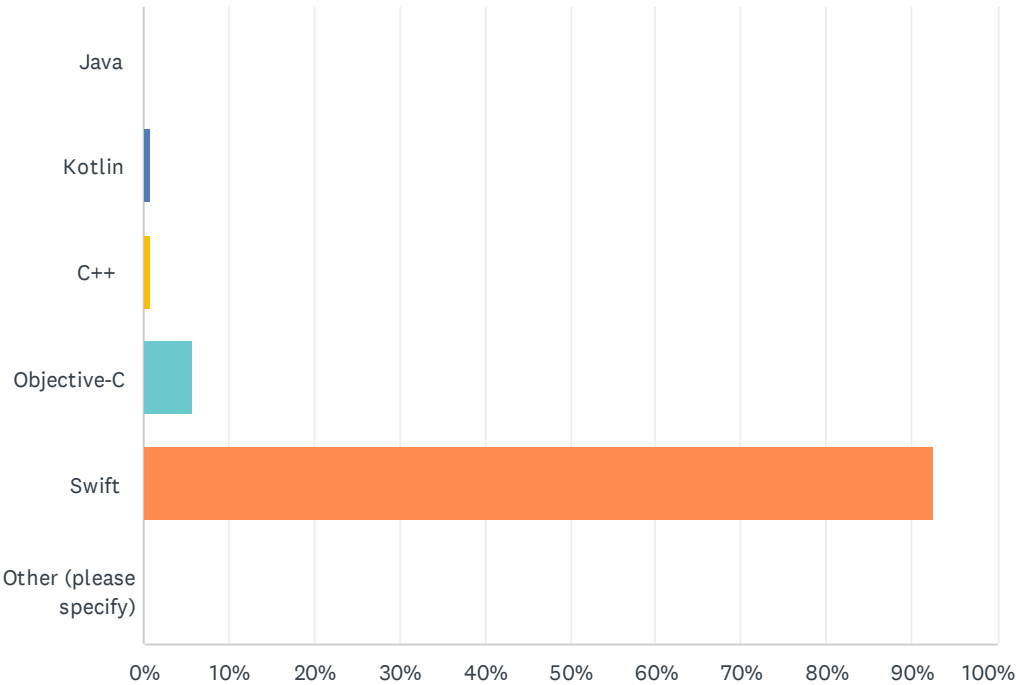
Answered: 121 Skipped: 24



ANSWER CHOICES	RESPONSES	
Xcode	49.59%	60
Android Studio	28.93%	35
IntelliJ	14.88%	18
VSCode	70.25%	85
AppCode	1.65%	2
Other (please specify)	13.22%	16
Total Respondents: 121		

Q40 What is your primary programming language?

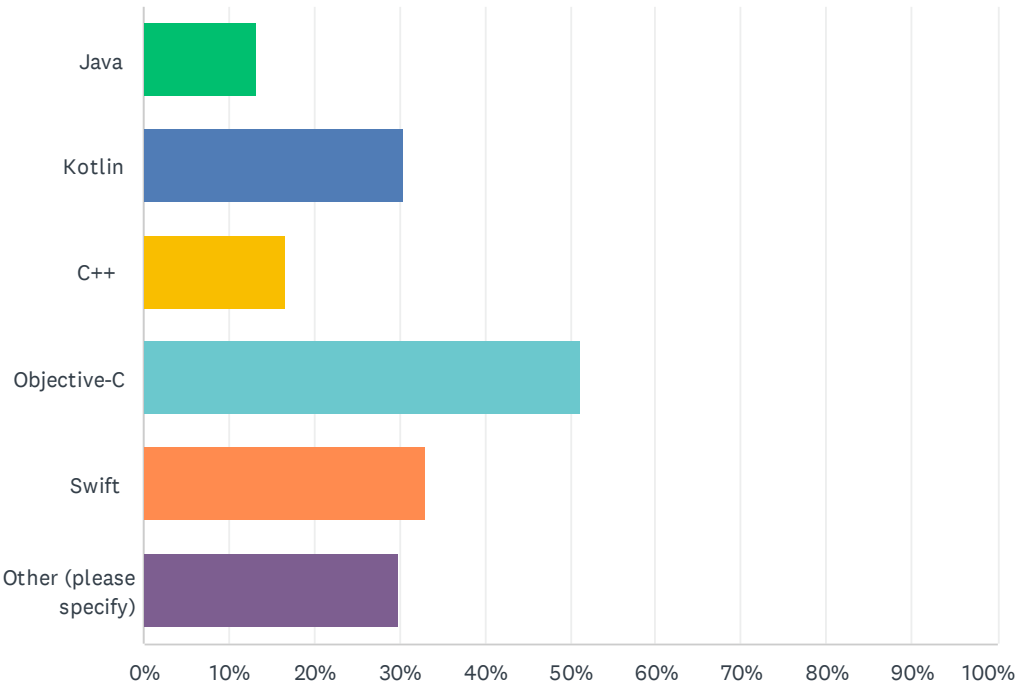
Answered: 121 Skipped: 24



ANSWER CHOICES	RESPONSES	
Java	0.00%	0
Kotlin	0.83%	1
C++	0.83%	1
Objective-C	5.79%	7
Swift	92.56%	112
Other (please specify)	0.00%	0
TOTAL		121

Q41 What other programming languages do you use (multi select)?

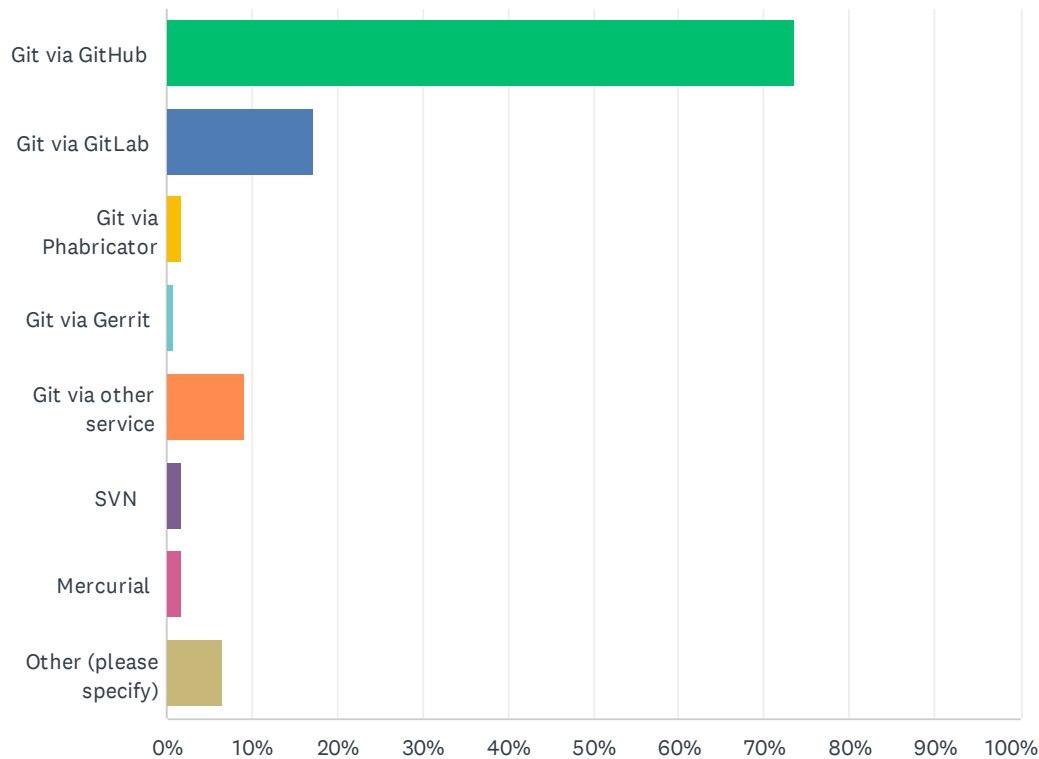
Answered: 121 Skipped: 24



ANSWER CHOICES	RESPONSES	
Java	13.22%	16
Kotlin	30.58%	37
C++	16.53%	20
Objective-C	51.24%	62
Swift	33.06%	40
Other (please specify)	29.75%	36
Total Respondents: 121		

Q42 What do you use for version control?

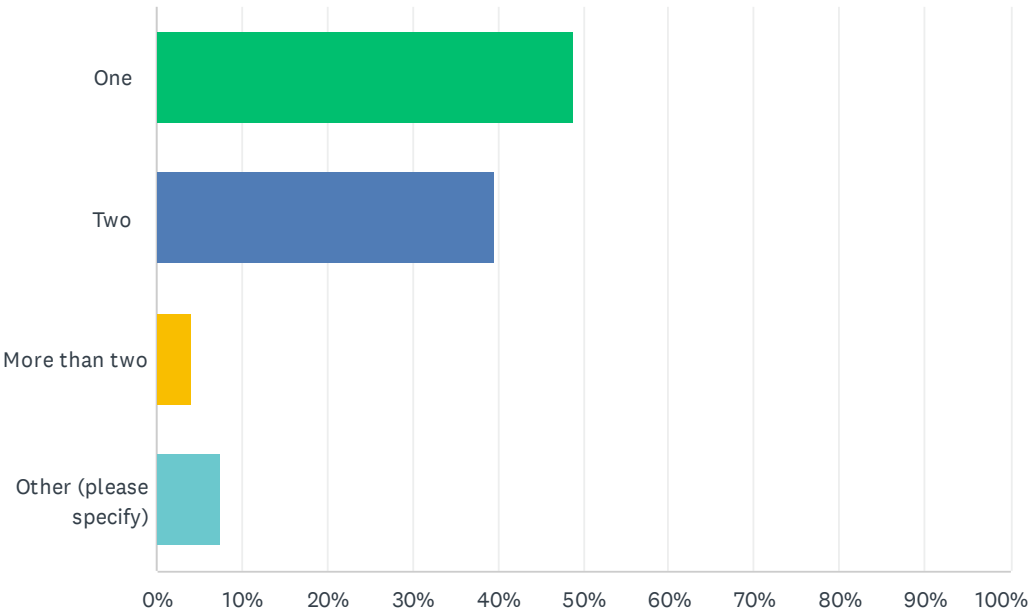
Answered: 121 Skipped: 24



ANSWER CHOICES	RESPONSES	
Git via GitHub	73.55%	89
Git via GitLab	17.36%	21
Git via Phabricator	1.65%	2
Git via Gerrit	0.83%	1
Git via other service	9.09%	11
SVN	1.65%	2
Mercurial	1.65%	2
Other (please specify)	6.61%	8
Total Respondents: 121		

Q43 How many reviewers do you need for a typical code submission?

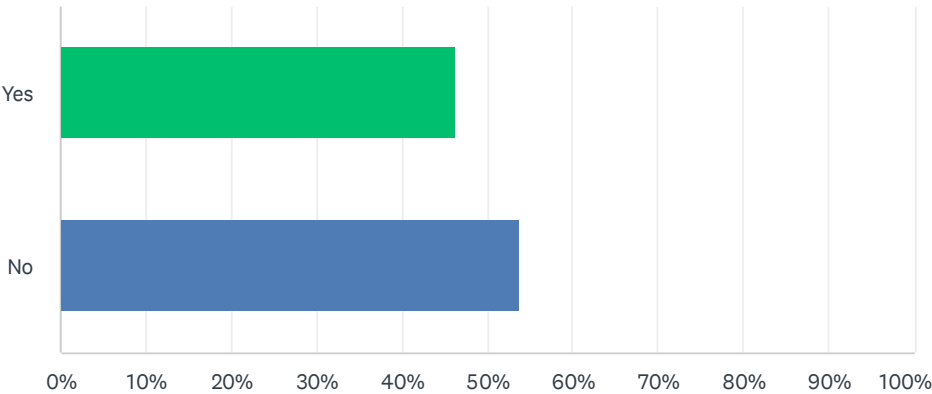
Answered: 121 Skipped: 24



ANSWER CHOICES	RESPONSES	
One	48.76%	59
Two	39.67%	48
More than two	4.13%	5
Other (please specify)	7.44%	9
TOTAL		121

Q44 Do you have blocking reviewer groups in your code submission process?

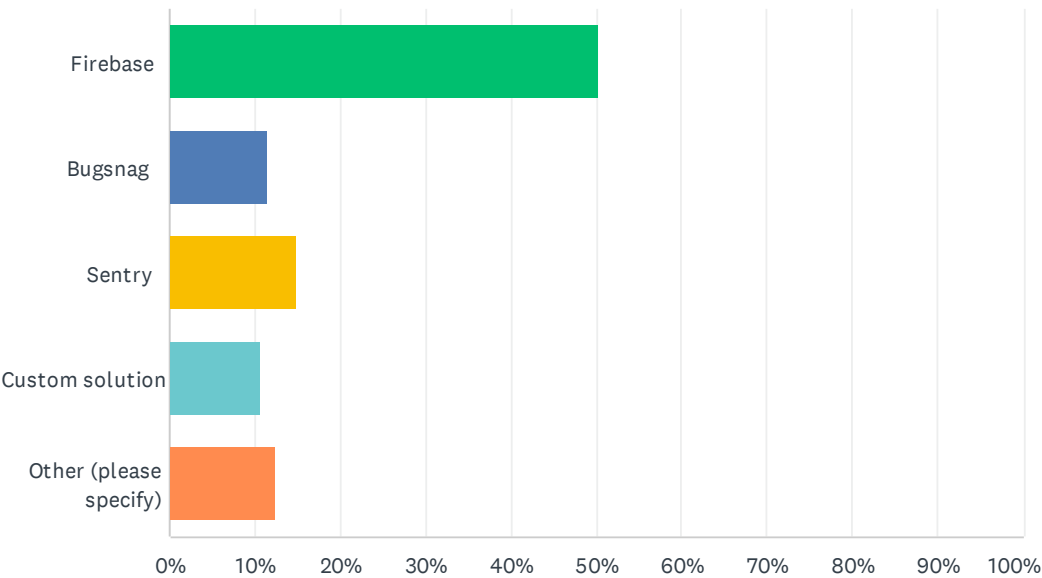
Answered: 121 Skipped: 24



ANSWER CHOICES	RESPONSES	
Yes	46.28%	56
No	53.72%	65
TOTAL		121

Q45 What type of crash reporting system do you use?

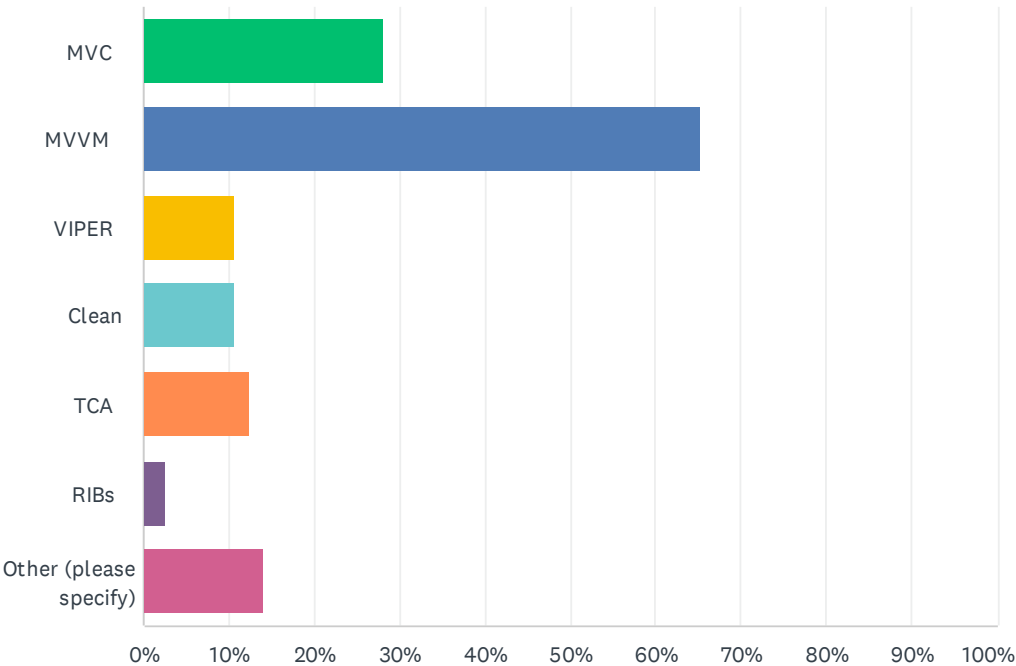
Answered: 121 Skipped: 24



ANSWER CHOICES		RESPONSES	
Firebase		50.41%	61
Bugsnag		11.57%	14
Sentry		14.88%	18
Custom solution		10.74%	13
Other (please specify)		12.40%	15
TOTAL			121

Q46 What type of architecture does your app use?

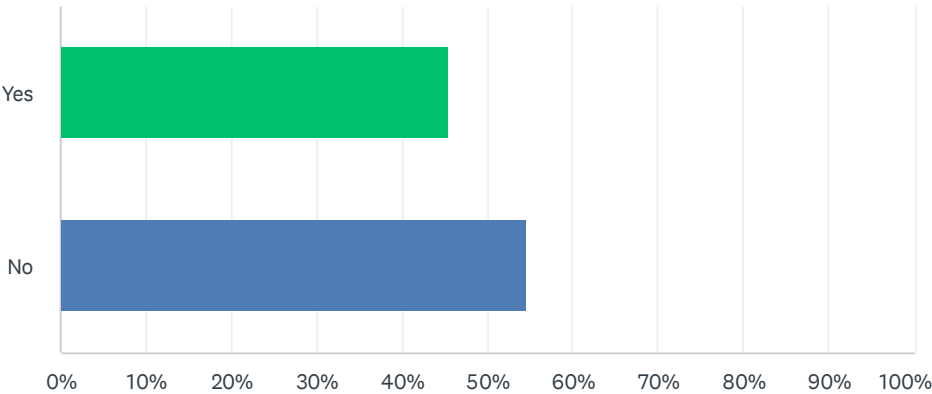
Answered: 121 Skipped: 24



ANSWER CHOICES	RESPONSES	
MVC	28.10%	34
MVVM	65.29%	79
VIPER	10.74%	13
Clean	10.74%	13
TCA	12.40%	15
RIBs	2.48%	3
Other (please specify)	14.05%	17
Total Respondents: 121		

Q47 Does your company have Github co-pilot or any similar development tools?

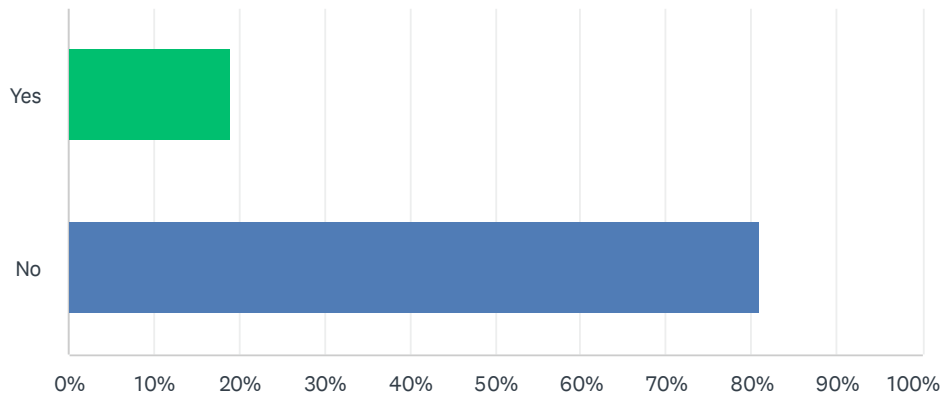
Answered: 121 Skipped: 24



ANSWER CHOICES	RESPONSES	
Yes	45.45%	55
No	54.55%	66
TOTAL		121

Q48 Is your company developing any LLM assisted developer productivity tools?

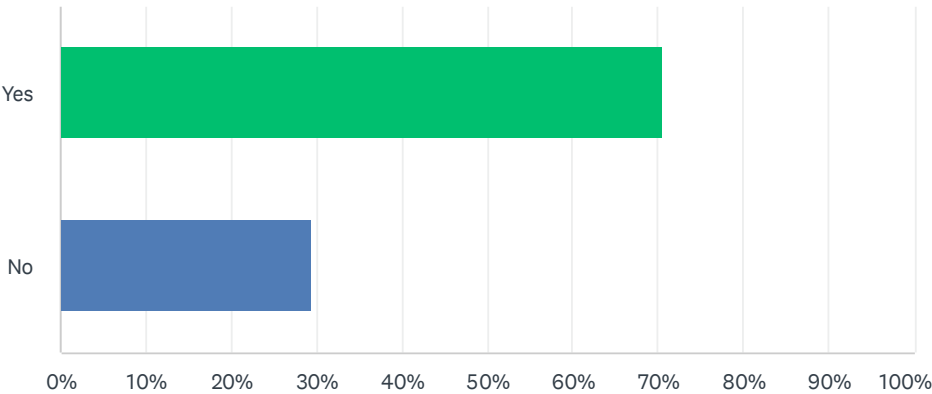
Answered: 121 Skipped: 24



ANSWER CHOICES	RESPONSES	
Yes	19.01%	23
No	80.99%	98
TOTAL		121

Q49 Do you participate in platform specific or general mobile meetups within your company?

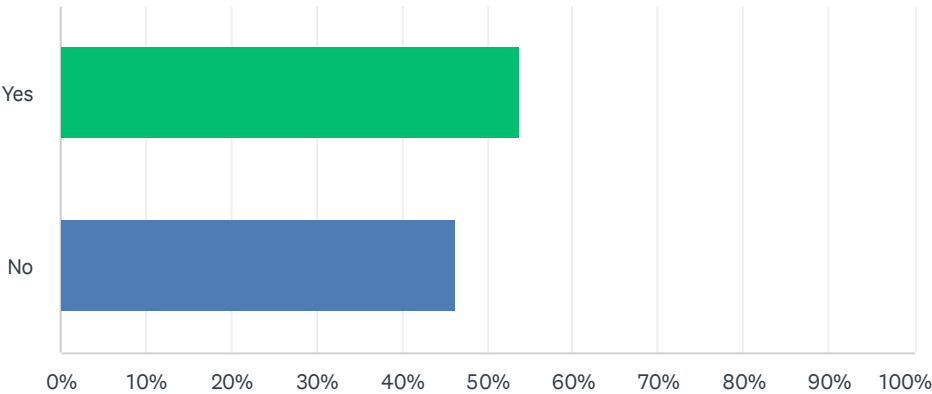
Answered: 119 Skipped: 26



ANSWER CHOICES		RESPONSES	
Yes		70.59%	84
No		29.41%	35
TOTAL			119

Q50 Do you participate in platform specific or general mobile meetups outside your company?

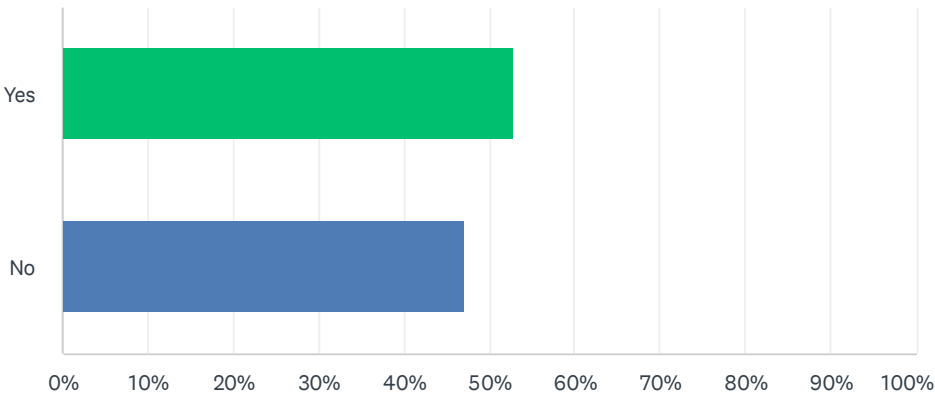
Answered: 119 Skipped: 26



ANSWER CHOICES	RESPONSES	
Yes	53.78%	64
No	46.22%	55
TOTAL		119

Q51 Does your company sponsor employees to speak at conferences?
For example encouraging you to speak, and/or paying for travel,
sponsoring entire conferences?

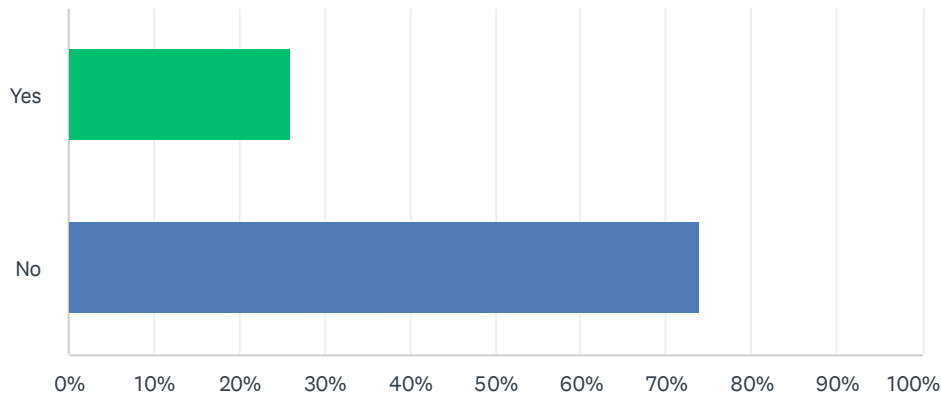
Answered: 119 Skipped: 26



ANSWER CHOICES		RESPONSES	
Yes		52.94%	63
No		47.06%	56
TOTAL			119

Q52 In a typical year, do you attend any large mobile related conferences like WWDC or Google I/O?

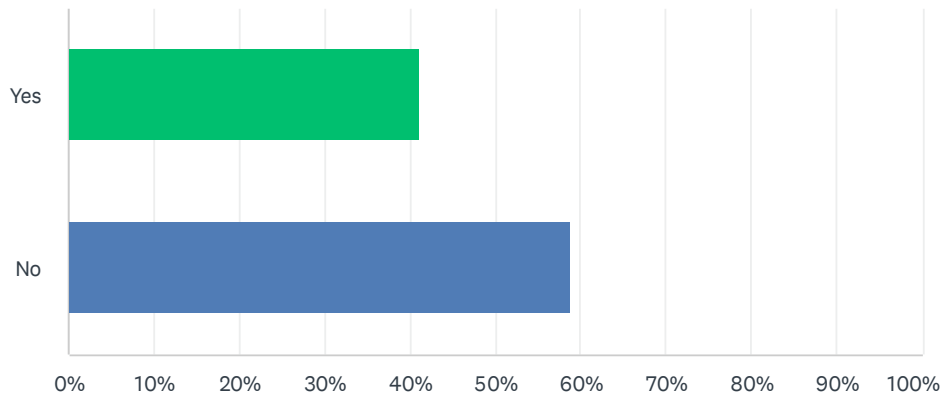
Answered: 119 Skipped: 26



ANSWER CHOICES	RESPONSES	
Yes	26.05%	31
No	73.95%	88
TOTAL		119

Q53 In a typical year, do you attend any community driven conferences? (droidCon or beyond WWDC events)

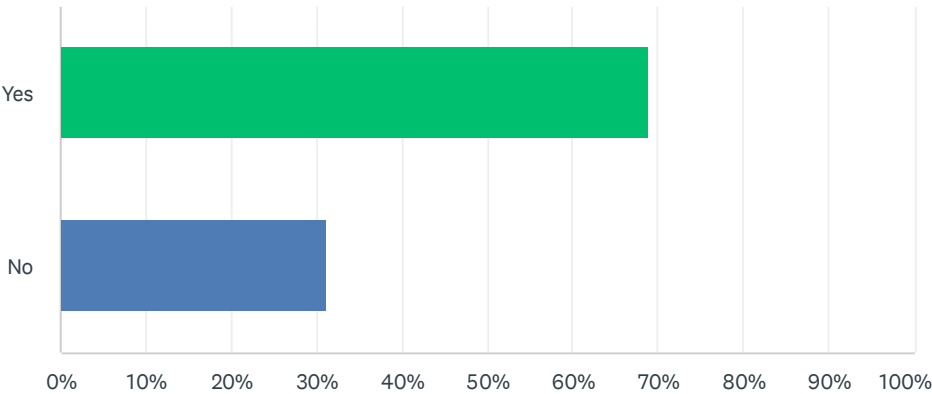
Answered: 119 Skipped: 26



ANSWER CHOICES		RESPONSES	
Yes		41.18%	49
No		58.82%	70
TOTAL			119

Q54 Do you participate in online communities relating to mobile development (ie Slack groups, forums, etc)?

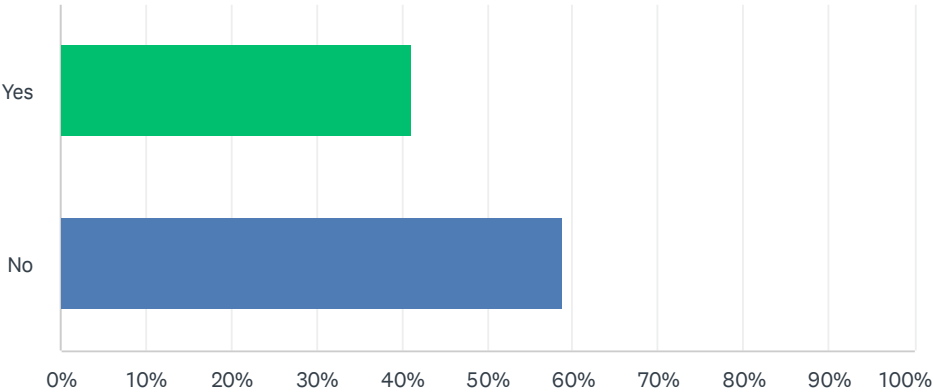
Answered: 119 Skipped: 26



ANSWER CHOICES	RESPONSES	
Yes	68.91%	82
No	31.09%	37
TOTAL		119

Q55 Do you participate in open source development relating to mobile, in your personal time?

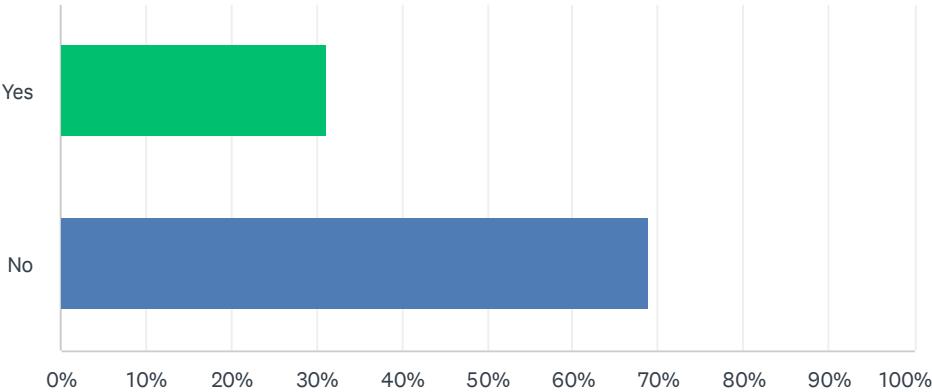
Answered: 119 Skipped: 26



ANSWER CHOICES	RESPONSES	
Yes	41.18%	49
No	58.82%	70
TOTAL		119

Q56 Do you participate in open source development relating to mobile, while on company time?

Answered: 119 Skipped: 26



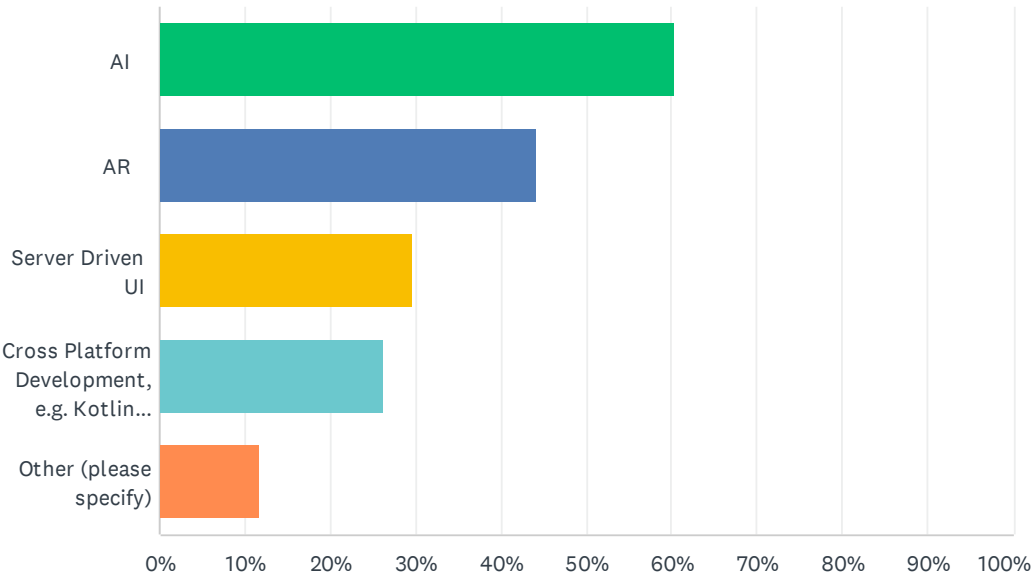
ANSWER CHOICES	RESPONSES	
Yes	31.09%	37
No	68.91%	82
TOTAL		119

Q57 Which iOS/Android community are you a member of? (Such as Slack group, meetup, etc)

Answered: 43 Skipped: 102

Q58 Are you excited about any of the following new and cutting edge fields?

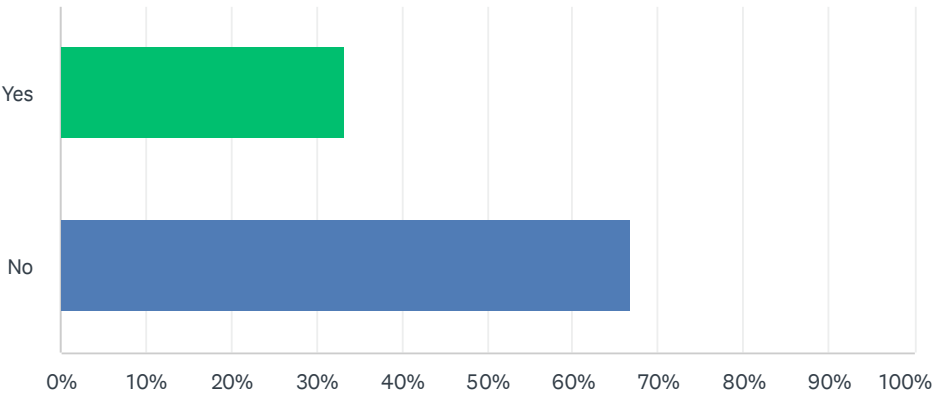
Answered: 111 Skipped: 34



ANSWER CHOICES	RESPONSES	
AI	60.36%	67
AR	44.14%	49
Server Driven UI	29.73%	33
Cross Platform Development, e.g. Kotlin Multiplatform	26.13%	29
Other (please specify)	11.71%	13
Total Respondents: 111		

Q59 Has your company adopted any LLMs?

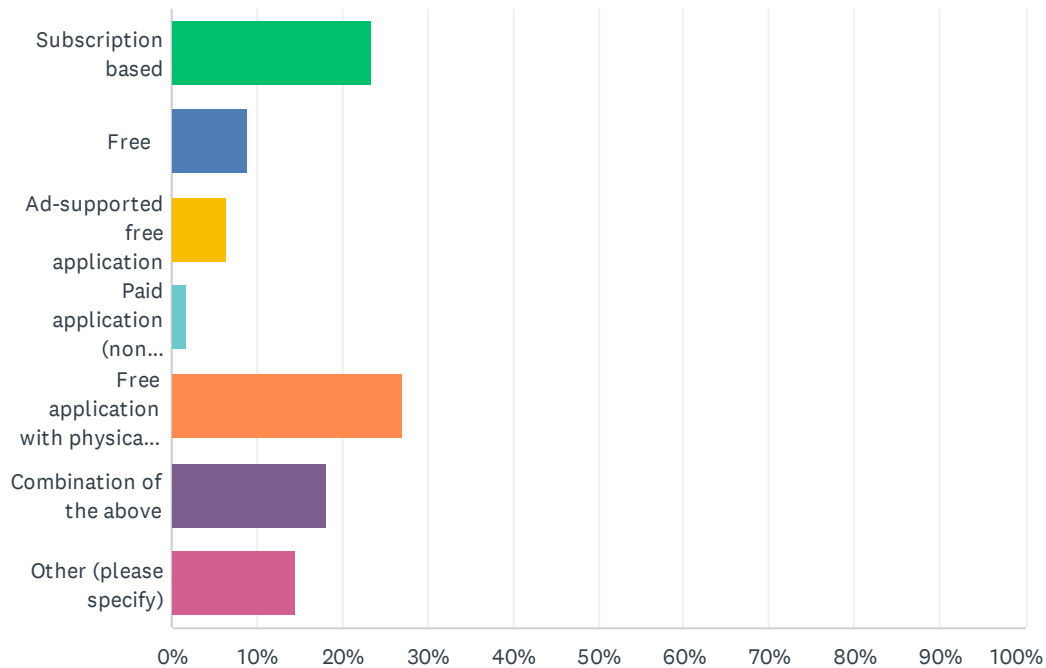
Answered: 111 Skipped: 34



ANSWER CHOICES	RESPONSES	
Yes	33.33%	37
No	66.67%	74
TOTAL		111

Q60 What is your company's business model?

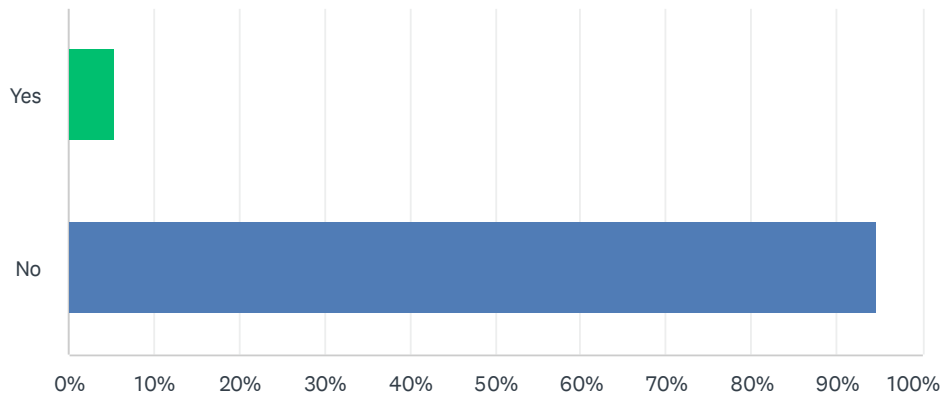
Answered: 111 Skipped: 34



ANSWER CHOICES	RESPONSES	
Subscription based	23.42%	26
Free	9.01%	10
Ad-supported free application	6.31%	7
Paid application (non subscription)	1.80%	2
Free application with physical goods or services exchanged	27.03%	30
Combination of the above	18.02%	20
Other (please specify)	14.41%	16
TOTAL		111

Q61 Does your business build games?

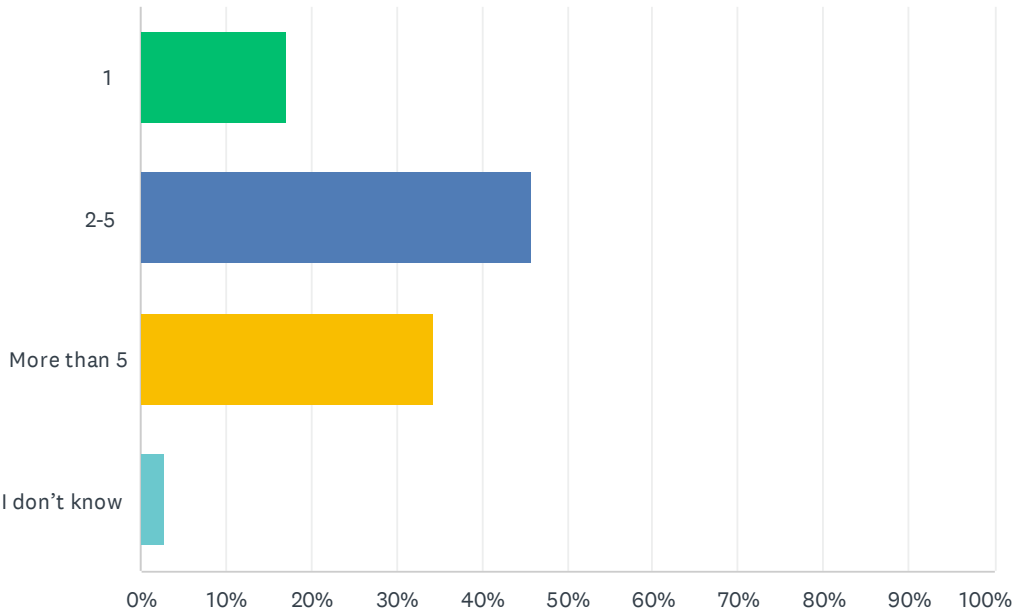
Answered: 111 Skipped: 34



ANSWER CHOICES	RESPONSES	
Yes	5.41%	6
No	94.59%	105
TOTAL		111

Q62 How many apps does your business support?

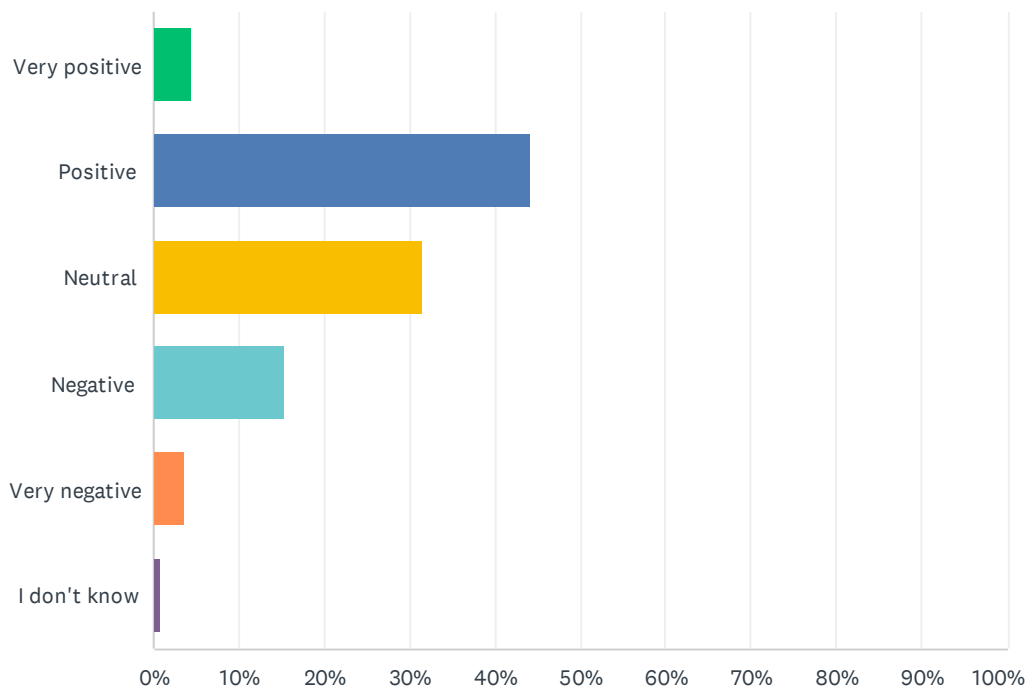
Answered: 111 Skipped: 34



ANSWER CHOICES	RESPONSES	
1	17.12%	19
2-5	45.95%	51
More than 5	34.23%	38
I don't know	2.70%	3
TOTAL		111

Q63 What is your sentiment around current iOS App Store practices?

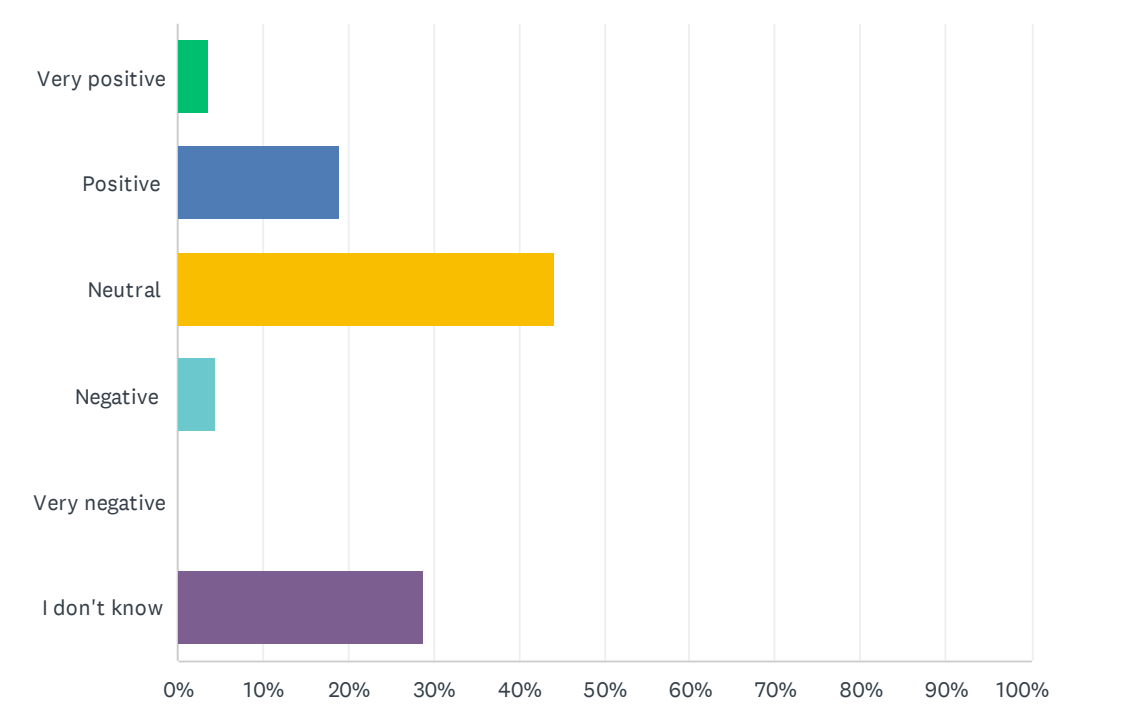
Answered: 111 Skipped: 34



ANSWER CHOICES	RESPONSES	
Very positive	4.50%	5
Positive	44.14%	49
Neutral	31.53%	35
Negative	15.32%	17
Very negative	3.60%	4
I don't know	0.90%	1
TOTAL		111

Q64 What is your sentiment around current Android Play Store practices?

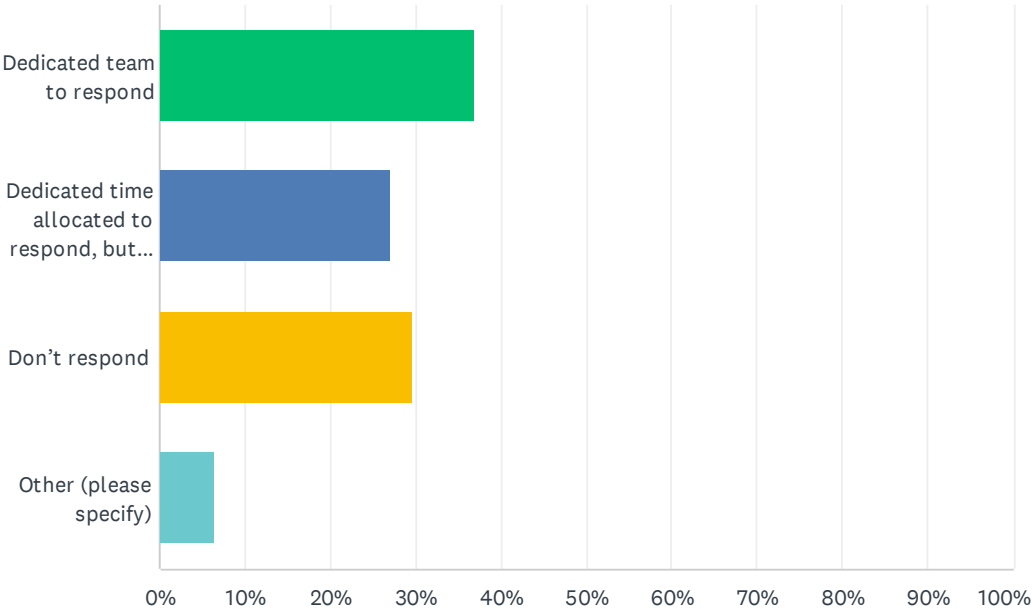
Answered: 111 Skipped: 34



ANSWER CHOICES	RESPONSES	
Very positive	3.60%	4
Positive	18.92%	21
Neutral	44.14%	49
Negative	4.50%	5
Very negative	0.00%	0
I don't know	28.83%	32
TOTAL		111

Q65 How does your business handle app reviews, especially 1-star reviews?

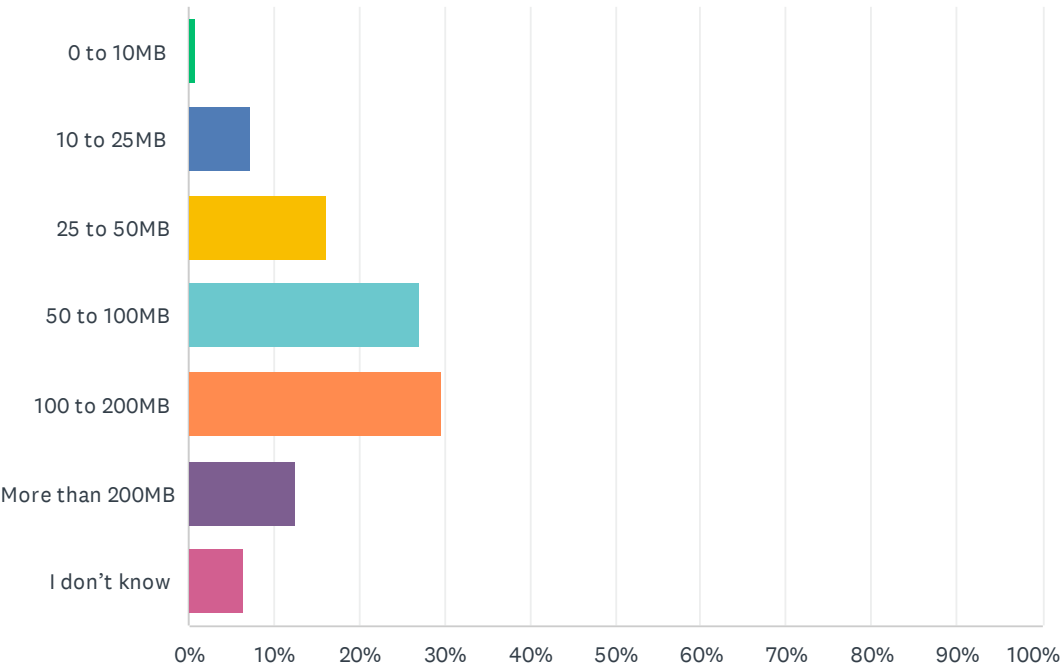
Answered: 111 Skipped: 34



ANSWER CHOICES	RESPONSES	
Dedicated team to respond	36.94%	41
Dedicated time allocated to respond, but no specific team	27.03%	30
Don't respond	29.73%	33
Other (please specify)	6.31%	7
TOTAL		111

Q66 How large is your app’s download size?

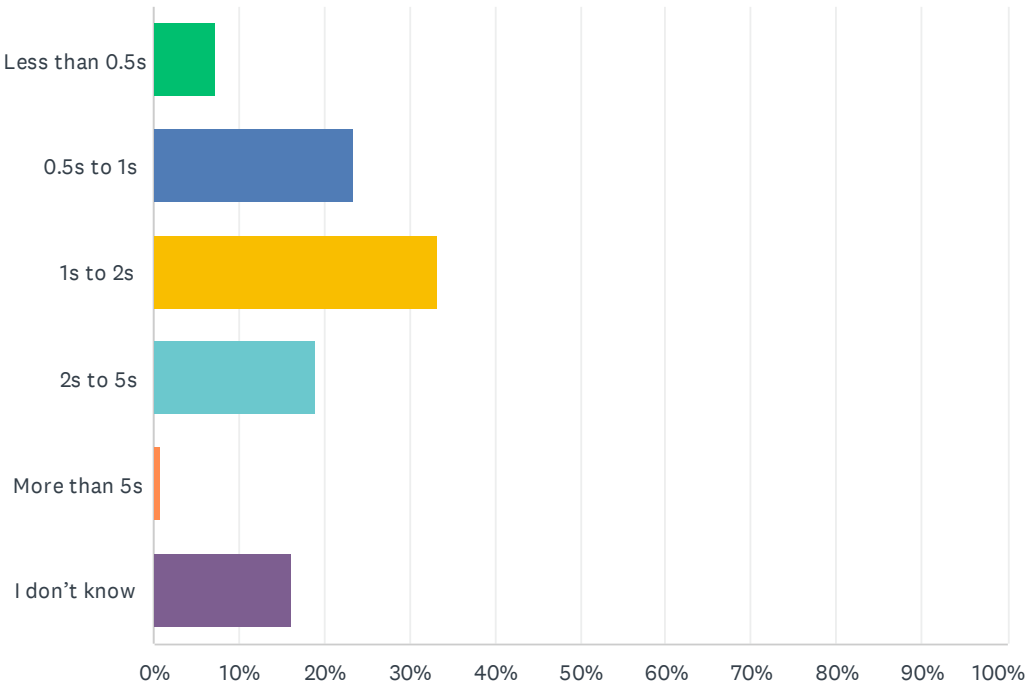
Answered: 111 Skipped: 34



ANSWER CHOICES	RESPONSES	
0 to 10MB	0.90%	1
10 to 25MB	7.21%	8
25 to 50MB	16.22%	18
50 to 100MB	27.03%	30
100 to 200MB	29.73%	33
More than 200MB	12.61%	14
I don't know	6.31%	7
TOTAL		111

Q67 What is the cold start time for your application?

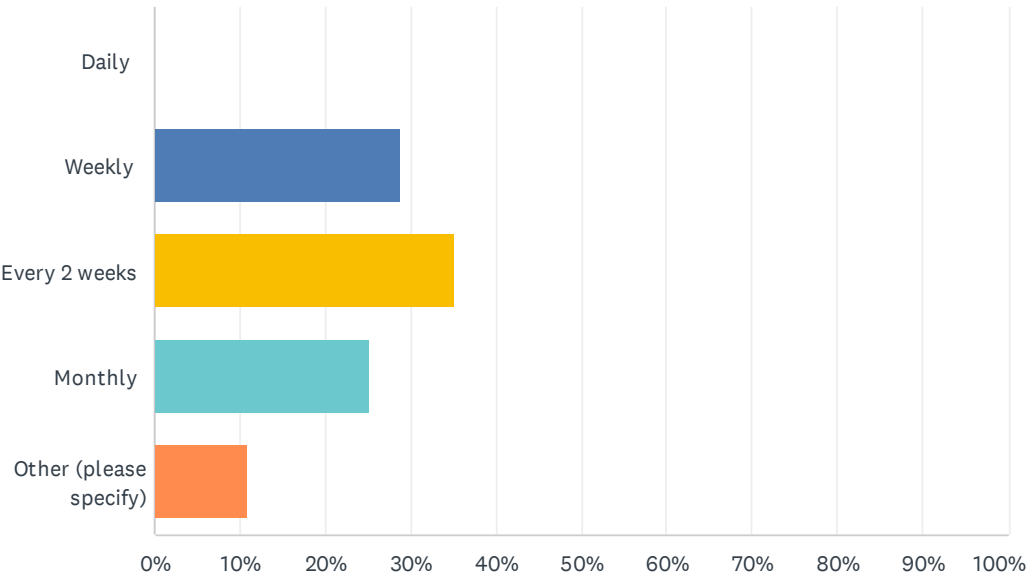
Answered: 111 Skipped: 34



ANSWER CHOICES	RESPONSES	
Less than 0.5s	7.21%	8
0.5s to 1s	23.42%	26
1s to 2s	33.33%	37
2s to 5s	18.92%	21
More than 5s	0.90%	1
I don't know	16.22%	18
TOTAL		111

Q68 How frequently do you release your application to the public?

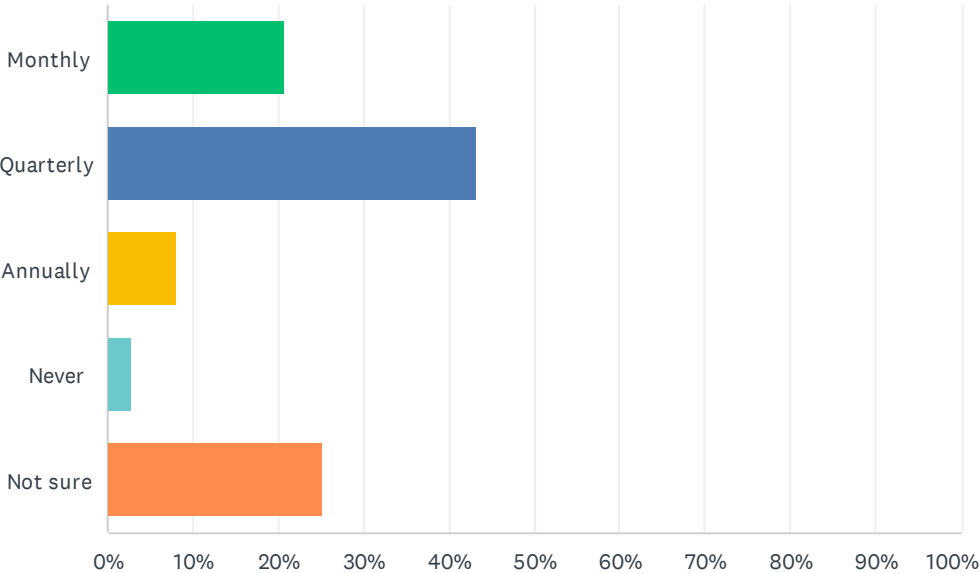
Answered: 111 Skipped: 34



ANSWER CHOICES	RESPONSES	
Daily	0.00%	0
Weekly	28.83%	32
Every 2 weeks	35.14%	39
Monthly	25.23%	28
Other (please specify)	10.81%	12
TOTAL		111

Q69 How frequently do you hotfix your application (perform a release outside your typical schedule)?

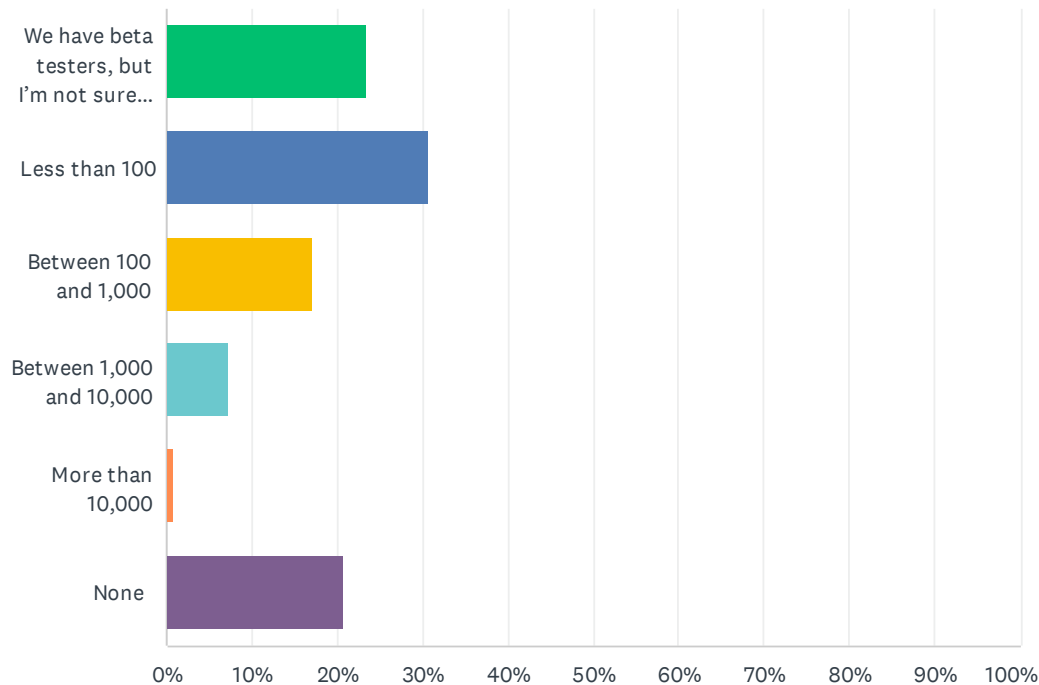
Answered: 111 Skipped: 34



ANSWER CHOICES	RESPONSES	
Monthly	20.72%	23
Quarterly	43.24%	48
Annually	8.11%	9
Never	2.70%	3
Not sure	25.23%	28
TOTAL		111

Q70 How many beta testers do you have?

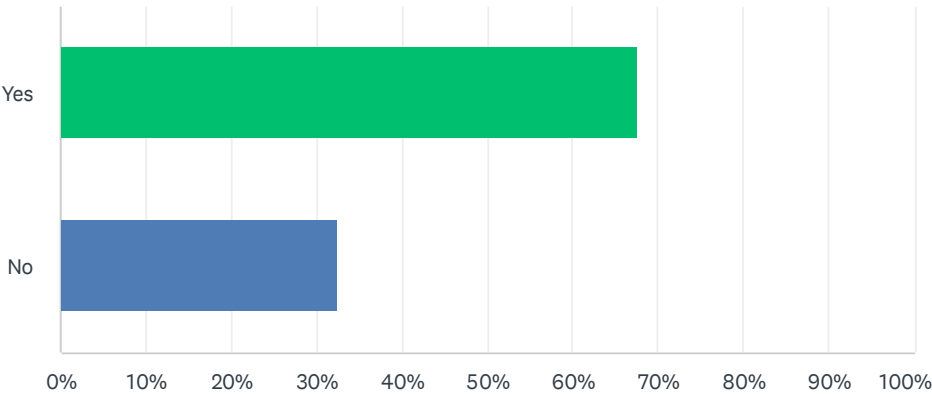
Answered: 111 Skipped: 34



ANSWER CHOICES	RESPONSES	
We have beta testers, but I'm not sure how many	23.42%	26
Less than 100	30.63%	34
Between 100 and 1,000	17.12%	19
Between 1,000 and 10,000	7.21%	8
More than 10,000	0.90%	1
None	20.72%	23
TOTAL		111

Q71 Do you phase in new releases (for example using Apple’s tooling for this)?

Answered: 111 Skipped: 34



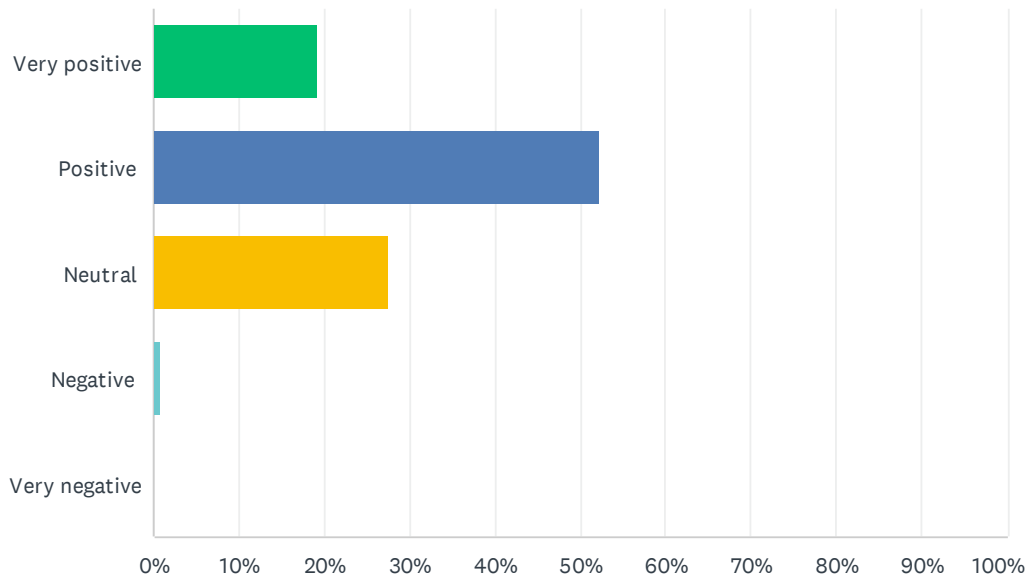
ANSWER CHOICES		RESPONSES	
Yes		67.57%	75
No		32.43%	36
TOTAL			111

Q72 Were there any questions you wished we had asked on this survey?

Answered: 15 Skipped: 130

Q73 After completing this survey, what is your sentiment about this survey, do you expect the results to be useful to you or the broader community?

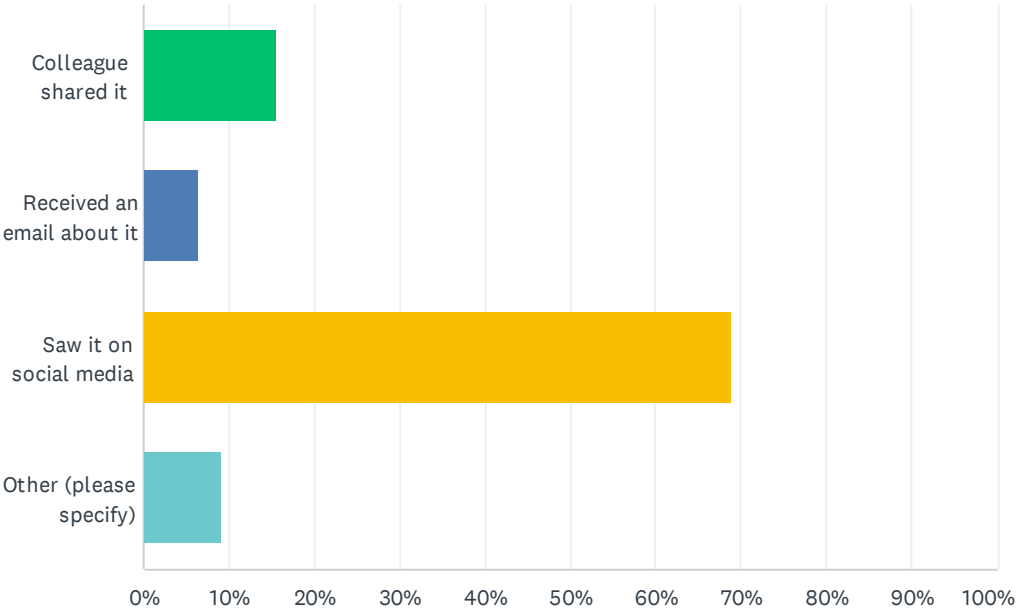
Answered: 109 Skipped: 36



ANSWER CHOICES	RESPONSES	
Very positive	19.27%	21
Positive	52.29%	57
Neutral	27.52%	30
Negative	0.92%	1
Very negative	0.00%	0
TOTAL		109

Q74 How did you find out about this survey?

Answered: 109 Skipped: 36



ANSWER CHOICES	RESPONSES	
Colleague shared it	15.60%	17
Received an email about it	6.42%	7
Saw it on social media	68.81%	75
Other (please specify)	9.17%	10
TOTAL		109

Q75 [Optional] What company do you work for?

Answered: 23 Skipped: 122