

Data Description – Android Developer Survey (Security)

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Google Play Information from Christian Stransky, Leibniz University Hannover
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This note describes the fields in the Tab Separated Variables (TSV) file
Anonymised_Results.tsv.

The file has two heading rows. The first provides workable row titles, such as 'Q4'; the second details the actual questions asked in the survey.

The survey questions and codings are in the attached MS Word document,
Android_Developer_Survey_QuestionsAndCoding.docx.

The following table describes the columns in the TSV file:

Field	Description
StartDate	Generated by Qualtrics – see https://www.qualtrics.com/support/survey-platform/data-and-analysis-module/data/download-data/understanding-your-dataset/
EndDate	
Status	
Progress	
Duration (in seconds)	
Finished	
RecordedDate	
ResponseId	
LocationLatitude	Generated by Qualtrics and rounded to nearest integer...
LocationLongitude	
DistributionChannel	Generated by Qualtrics...
UserLanguage	
Q4	Coded answers to survey questions. See Android_Developer_Survey_QuestionsAndCoding.docx
Q5	
Q5_6_TEXT	
Q6	

Q7	
Q8	
Q9	
Q10	
Q11_1	
Q11_2	
Q11_3	
Q11_4	
Q11_13	
Q12_1	
Q12_2	
Q12_3	
Q12_4	
Q12_5	
Q12_6	
Q13	
Q14	
Q15	
Q16	
Q17	
Q17_7_TEXT	
Q18	
Q19	
Q20	
Q20_4_TEXT	
Q21_1	
Q21_2	
Q21_3	
Q21_4	
Q21_5	
Q22	
Q23	
Q24	
Q25	
Q26	
Q27	
Q28	
Q29	
Q30	
Q31	Country codes are in Country_Codes.txt
Q32	
Q33	

Identifier	Our internal identifier for the corresponding APK
DownloadRange	Google Play download range – see below.
Date	Last APK Update
Instr	Data from parsing the APK... Count of Instructions
class	Count of classes
method	Count of methods
field	Count of fields
Hermes: cryptographic key handling	Count of calls found to functions involving...
Hermes: javax.crypto.Cipher getInstance	
Hermes: using Certificates	
Hermes: using KeyStore	
Hermes: using Mac	
Hermes: using MessageDigest	
Hermes: using SecureRandom	
Hermes: using Signature	
CogniCrypt: ConstraintError	See https://github.com/CROSSINGTUD/CryptoAnalysis for CogniCrypt errors.
CogniCrypt: NeverTypeOfError	
CogniCrypt: ForbiddenMethodError	
CogniCrypt: ImpreciseValueExtractionError	
CogniCrypt: RequiredPredicateError	
CogniCrypt: IncompleteOperationError	
CogniCrypt: TypestateError	
LibScout: OLD VERSION	https://doi.org/10.1145/2976749.2978333
LibScout: SECURITY	
FlowDroid Leaks	https://doi.org/10.1145/2594291.2594299
BadSSL	Count of errors by extracting any URL from the constant pools of the classes contained in the app using the OPAL framework (Version 1.0.0) and checking the server configuration and certificate using the command-line tools curl (Version 7.64.0) and openssl (Version 1.1.1b).
MalloDroid	https://doi.org/10.1145/2382196.2382205

The mapping of the Google Play Downloads value is:

0	1 - 5
2	5 - 10
3	10 - 50
4	50 - 100

5	100 - 500
6	500 - 1,000
7	1,000 - 5,000
8	5,000 - 10,000
9	10,000 - 50,000
10	50,000 - 100,000
11	100,000 - 500,000
12	500,000 - 1,000,000
13	1,000,000 - 5,000,000
14	5,000,000 - 10,000,000
15	10,000,000 - 50,000,000
16	50,000,000 - 100,000,000
17	100,000,000 - 500,000,000
18	500,000,000 - 1,000,000,000
19	1,000,000,000 - 5,000,000,000
20	5,000,000,000 - 10,000,000,000
21	10,000,000,000 - 50,000,000,000