

Table 1: Activation Properties (out of 185 activities)

Property	# of Activities (%)	Reasons
1. Exported	31 (16.8%)	2. Alternate entry (29)
		3.2. Information (2)
		4.2. Disabled for all end-users (1)
		6.1. Software (1)
		7. Environment (1)
		8. Usage patterns (1)
2. Activation Location	185 (100%)	
Code	149 (80.5%)	
GUI/lifecycle	114 (61.6%)	1. Server (20)
		2. Alternate entry (15)
		3.1. Equipment (12)
		3.2. Information (14)
		4.1. Disabled for app version (26)
		4.2. Disabled for all end-users (9)
		5. Error handling (11)
		6.1. Software (9)
		6.2. Hardware (9)
Other Android	25 (13.5%)	7. Environment (7)
		8. Usage patterns (3)
		1. Server (13)
		2. Alternate entry (1)
		3.2. Information (2)
		4.1. Disabled for app version (1)
		5. Error handling (9)
		6.1. Software (2)
		6.2. Hardware (1)
App-specific	10 (5.4%)	7. Environment (1)
		1. Server (9)
		3.1. Equipment (1)
Manifest	36 (19.5%)	5. Error handling (1)
		2. Alternate entry (34)
		3.1. Equipment (1)
		3.2. Information (2)
		4.2. Disabled for all end-users (1)
3. Activation Guards	138 (74.6%)	6.1. Software (1)
Enforcement	138 (74.6%)	
In Code	117 (63.2%)	1. Server (32)
		2. Alternate entry (12)
		3.1. Equipment (13)
		3.2. Information (14)
		4.1. Disabled for app version (15)
		4.2. Disabled for all end-users (5)
		5. Error handling (20)
		6.1. Software (11)
		6.2. Hardware (9)
		7. Environment (7)
In Resources	21 (11.4%)	8. Usage patterns (3)
		1. Server (39)
		2. Alternate entry (35)
		3.1. Equipment (5)
		3.2. Information (15)
		4.1. Disabled for app version (12)
		4.2. Disabled for all end-users (2)
		5. Error handling (15)
		6.1. Software (8)
		6.2. Hardware (3)
Restriction	138 (74.6%)	7. Environment (4)
Mandatory	91 (49.2%)	8. Usage patterns (2)
		1. Server (29)
		2. Alternate entry (14)
		3.1. Equipment (10)
		3.2. Information (12)
		4.1. Disabled for app version (9)
		4.2. Disabled for all end-users (1)
		5. Error handling (15)
		6.1. Software (7)
Discretionary	47 (25.4%)	6.2. Hardware (5)
		7. Environment (5)
		1. Server (6)
		3.1. Equipment (3)
		3.2. Information (2)
		4.1. Disabled for app version (16)
		4.2. Disabled for all end-users (9)
		5. Error handling (5)
4. Data	143 (77.3%)	6.1. Software (4)
Type	143 (77.3%)	6.2. Hardware (5)
Parameters	123 (66.5%)	7. Environment (3)
		8. Usage patterns (3)
		1. Server (39)
		2. Alternate entry (35)
		3.1. Equipment (5)
		3.2. Information (15)
		4.1. Disabled for app version (12)
		4.2. Disabled for all end-users (2)
		5. Error handling (15)
Execution Dependencies	52 (28.1%)	6.1. Software (8)
		6.2. Hardware (3)
		7. Environment (4)
		8. Usage patterns (2)
		1. Server (10)
		2. Alternate entry (12)
		3.1. Equipment (11)
		3.2. Information (5)
Format	143 (77.3%)	4.1. Disabled for app version (5)
Primitive	107 (57.8%)	4.2. Disabled for all end-users (2)
		5. Error handling (11)
		6.1. Software (5)
		6.2. Hardware (3)
		7. Environment (2)
		1. Server (30)
		2. Alternate entry (29)
		3.1. Equipment (8)
		3.2. Information (14)
Strings	69 (37.3%)	4.1. Disabled for app version (13)
		4.2. Disabled for all end-users (2)
		5. Error handling (14)
		6.1. Software (7)
		6.2. Hardware (2)
		7. Environment (5)
		1. Server (23)
		2. Alternate entry (27)
Objects	86 (46.5%)	3.1. Equipment (2)
		3.2. Information (6)
		4.1. Disabled for app version (6)
		4.2. Disabled for all end-users (2)
		5. Error handling (5)
		6.1. Software (6)
		6.2. Hardware (1)
		7. Environment (4)
		1. Server (28)
		2. Alternate entry (14)
		3.1. Equipment (11)
		3.2. Information (8)
		4.1. Disabled for app version (9)
		4.2. Disabled for all end-users (3)
		5. Error handling (15)
		6.1. Software (5)
		6.2. Hardware (4)
		7. Environment (1)
		8. Usage patterns (2)