

Appendix 2**Table 2. The overall generated and collected dataset from ransomware samples**

No	Ransomware	Data Processing Opcodes	Process Opcodes	Arithmetic Opcodes	Logic Opcodes	Control Flow Opcodes	Total
1	cerber.exe	27087	5423	24903	16281	155477	229171
2	cryptowall.exe	21993	1505	50955	13102	16373	103928
3	locky.exe	15425	5158	16462	10435	12260	59740
4	mamba.exe	233132	53856	232065	154467	133771	807291
5	matsnu.exe	9755	2653	13174	4838	5824	36244
6	petrwrap 1.exe	42976	8020	21662	19668	22007	114333
7	petrwrap 2.exe	60185	8278	103806	34585	41059	247913
8	petrwrap.exe	42976	8020	21662	19668	22007	114333
9	petya 1.exe	96530	23008	54206	35338	45482	254564
10	petya 2.exe	32682	6592	17918	10897	13303	81392
11	petya.exe	96530	23008	54206	35338	42333	251415
12	radaman_UPX.ViR.exe	0	0	0	1	0	1
13	satana.exe	8538	443	9593	3906	4516	26996
14	teslacrypt 1.exe	26309	5063	21494	10583	13831	77280
15	teslacrypt 2.exe	40067	9083	15219	14111	18316	96796
16	teslacrypt 3.exe	26848	5073	21489	10788	14089	78287
17	vipasana 1.exe	55799	10582	25264	26035	22068	139748
18	vipasana 2.exe	55622	10551	25397	26058	22199	139827
19	vipasana 3.exe	51241	9714	22437	22000	19819	125211
20	wannacry+.exe	294313	49985	167374	134839	160103	806614
21	wannacry.exe	393909	68355	205262	179467	211577	1058570
22	wannacryPlus.exe	294313	49985	167374	134839	160103	806614
Total		1926230	364355	1291922	917244	1156517	5656268