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Class: Fundamentals of Digital Forensics
Prof: Dan Nutting
Assignment: Program 1- FAT File Recovery

To start I began by hashing the exam.image file I downloaded from canvas to ensure the integrity of the disk image. Next the python script attached to this submission was used to extract files from the downloaded disk image. The files were extracted in the .dat format into a local folder on my computer. The script managed to extract quite a few files with most of them being the size of 4KB or less. I opened the files that were more than 4KB in a hex editor and looked at the headers for each file. I then googled any file headers with which I was unfamiliar. After identifying what type each of the larger files were I then changed the extension from .dat to .jpg, .mp3, or .mp4 depending on the type of file I identified it to be.
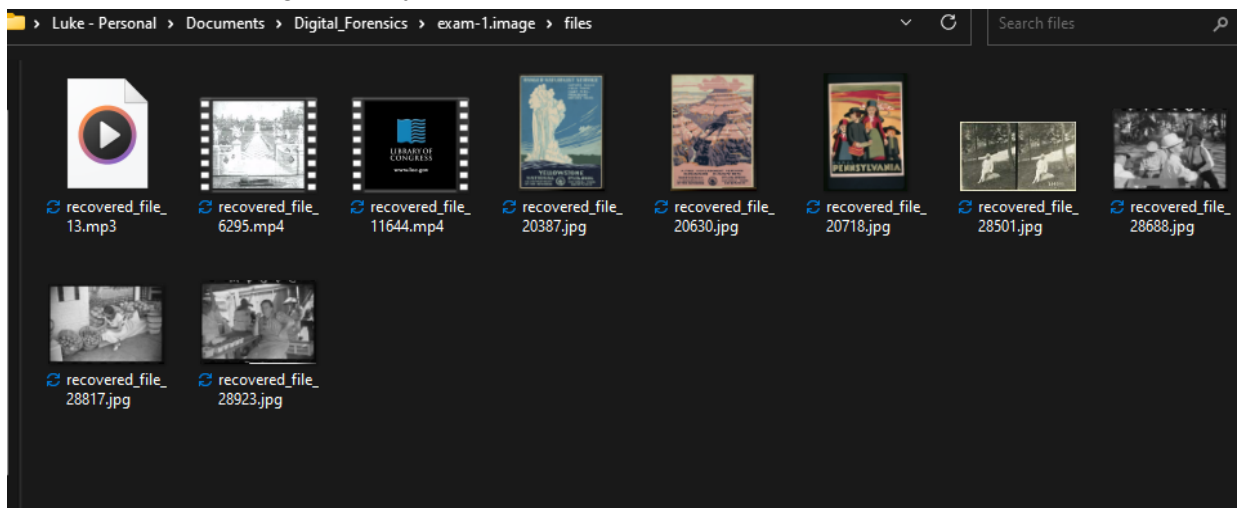
Above is a picture of the files that were recovered

Here is a list of the file hashes

SHA1 hash of exam.image:
78fe810294fbaee3c99d5a0af7661fb5580d41fe
Size: **57.2 MB (60,031,488 bytes)**

SHA1 hash of recovered_file_13.mp3:
4e5e861e2bc8af6f5f642762098aae9fb63107b4
Size: **7.52 MB (7,892,992 bytes)**

SHA1 hash of Recovered_file_6295.mp4:
C036771db7cc3e3965f29d91e46496212c7dee98
Size: **10.4 MB (10,952,704 bytes)**

SHA1 hash of Recovered_file_11644.mp4:
6fdab8f64a5c9ee9b34685cc192d8b09f9b6b0c3
Size: **37.2 MB (39,069,696 bytes)**

SHA1 hash of Recovered_file_20387.jpg:
Eecefda112762e9f5f5b0657b537170da168c581
Size: **136 KB (139,264 bytes)**

SHA1 hash of Recovered_file_20630.jpg:
8a12ec5cf0e88558e19813613b47d511b21313ec
Size: **168 KB (172,032 bytes)**

SHA1 hash of Recovered_file_20718.jpg:
3c00cf64f23921fa86a9a354f20165164ef3a71a
Size: **160 KB (163,840 bytes)**

SHA1 hash of Recovered_file_28501.jpg:
457a20d1eb236aa55175a853b84a266a79b16841
Size: **364 KB (372,736 bytes)**

SHA1 hash of Recovered_file_28688.jpg:
2072e5ef411687a960a73158c85d84021619959a
Size: **250 KB (256,000 bytes)**

SHA1 hash of Recovered_file_28817.jpg:
79f38a68c0eccf0f9df81d444d2995cb17201eb9
Size: **204 KB (208,896 bytes)**

SHA1 hash of Recovered_file_28923.jpg:
38f0256c5957ffa225833fed1aaa190982949391
Size: **238 KB (243,712 bytes)**