DJI Mavic Air Investigations

Mavic microSD card Expert Witness/Encase format

Obtain the microSD image

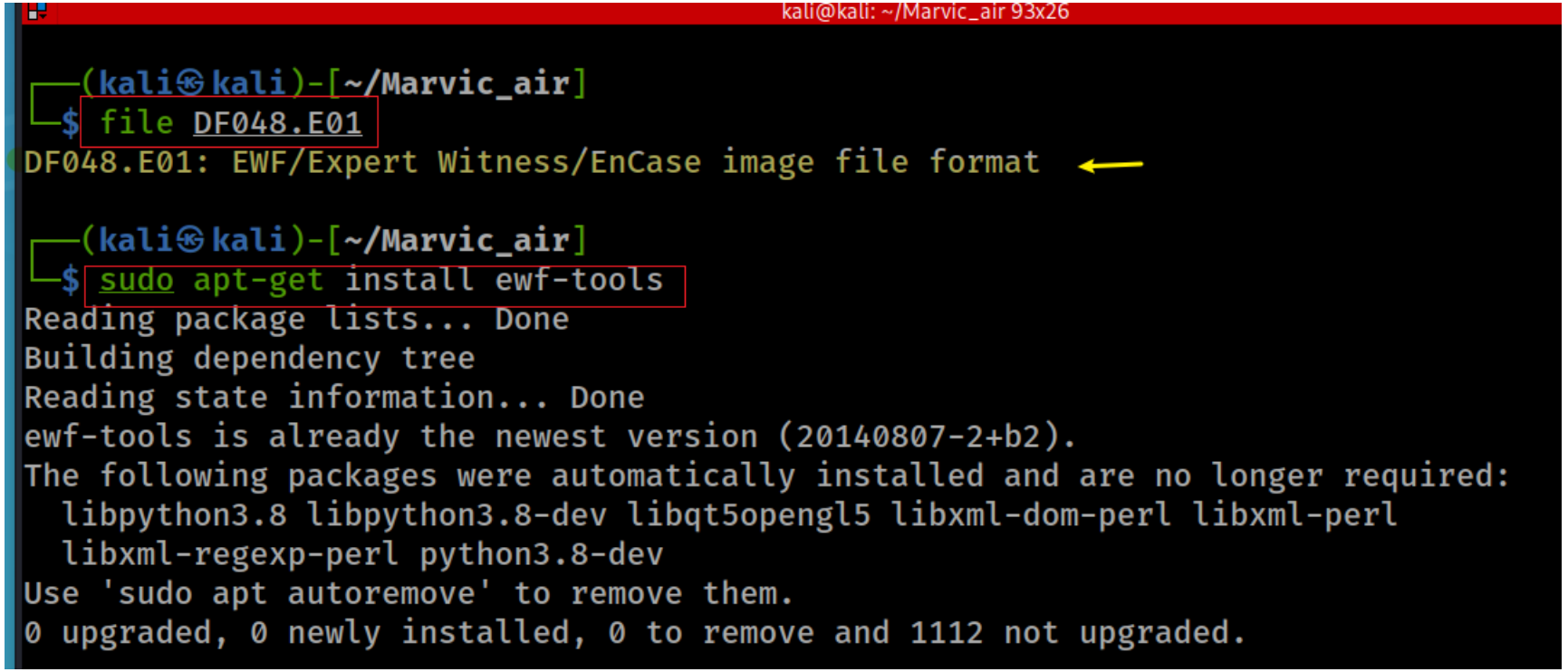
Download microSD card image

```
kali@kali: ~/Marvic_air 109x36

┌──(kali㉿kali)-[~/Marvic_air]
└─$ wget https://www.dropbox.com/s/3srna99g65poavo/DF048.E01
--2021-05-08 09:50:29--  https://www.dropbox.com/s/3srna99g65poavo/DF048.E01
Resolving www.dropbox.com (www.dropbox.com)... 162.125.6.18, 2620:100:601c:18::a27d:612
Connecting to www.dropbox.com (www.dropbox.com)|162.125.6.18|:443... connected.
HTTP request sent, awaiting response... 301 Moved Permanently
Location: /s/raw/3srna99g65poavo/DF048.E01 [following]
--2021-05-08 09:50:29--  https://www.dropbox.com/s/raw/3srna99g65poavo/DF048.E01
Reusing existing connection to www.dropbox.com:443.
```

Verify hash code

```
┌──(kali㉿kali)-[~/Marvic_air]
└─$ md5sum DF048.E01
d1651cfacd5b1827e337ad0a826002ae  DF048.E01
```

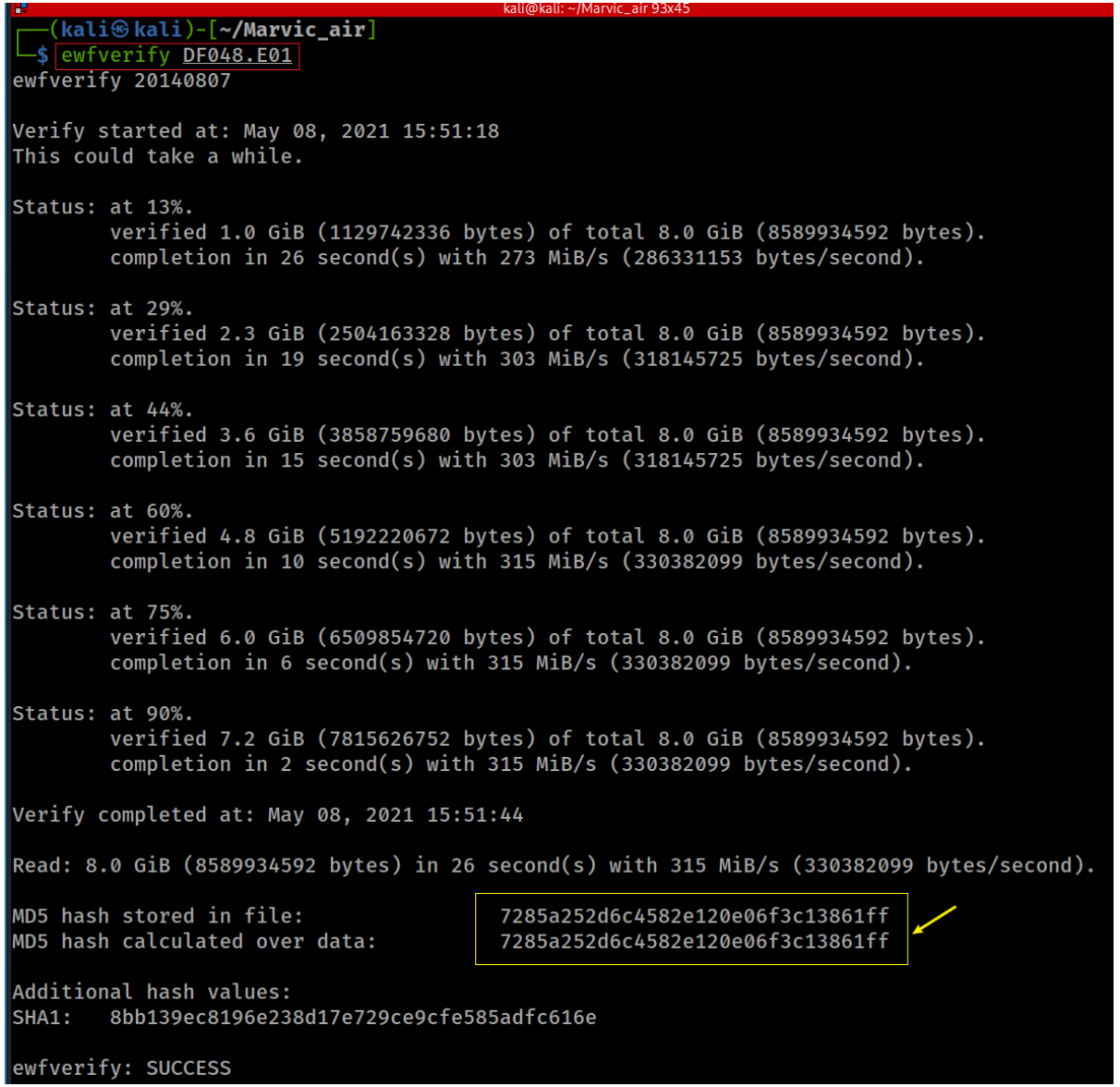
Find the format of Mavic microSD



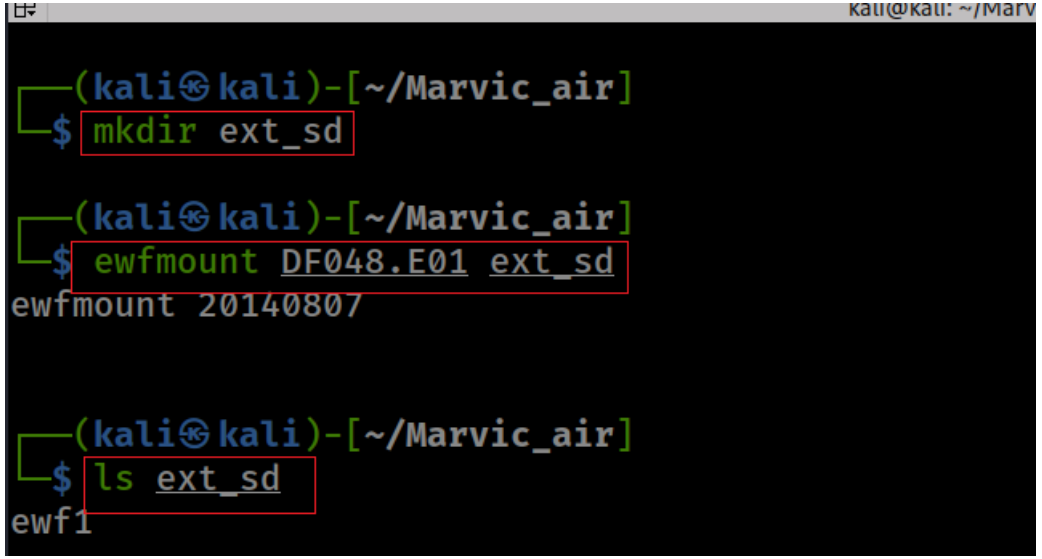
Show image information

```
┌──(kali㉿kali)-[~/Marvic_air]
└─$ ewfinfo DF048.E01
ewfinfo 20140807

Acquiry information
        Case number:            DF048
        Description:            untitled
        Examiner name:
        Evidence number:        DJI Mavic Air
        Notes:
        Acquisition date:       Thu Jun 28 15:59:48 2018
        System date:            Thu Jun 28 15:59:48 2018
        Operating system used:  Win 201x
        Software version used:  ADI3.4.0.1
        Password:               N/A

EWF information
        File format:            FTK Imager
        Sectors per chunk:      64
        Compression method:     deflate
        Compression level:      no compression

Media information
        Media type:             fixed disk
        Is physical:            yes
        Bytes per sector:       512
        Number of sectors:      16777216
        Media size:             8.0 GiB (8589934592 bytes)

Digest hash information
        MD5:                    7285a252d6c4582e120e06f3c13861ff
        SHA1:                   8bb139ec8196e238d17e729ce9cfe585adfc616e
```

Verify image hash

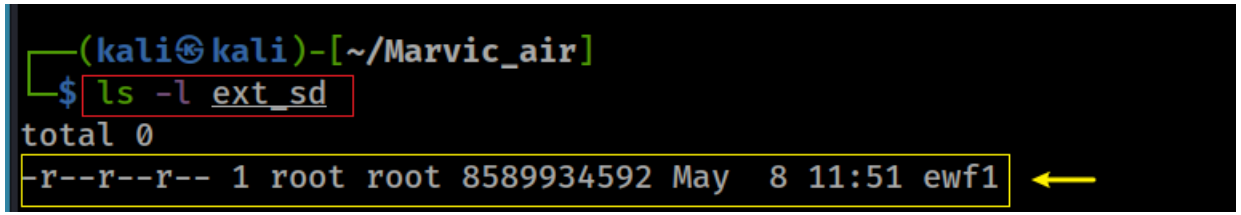


Mount an Expert Witness Compression Format (EWF) image file

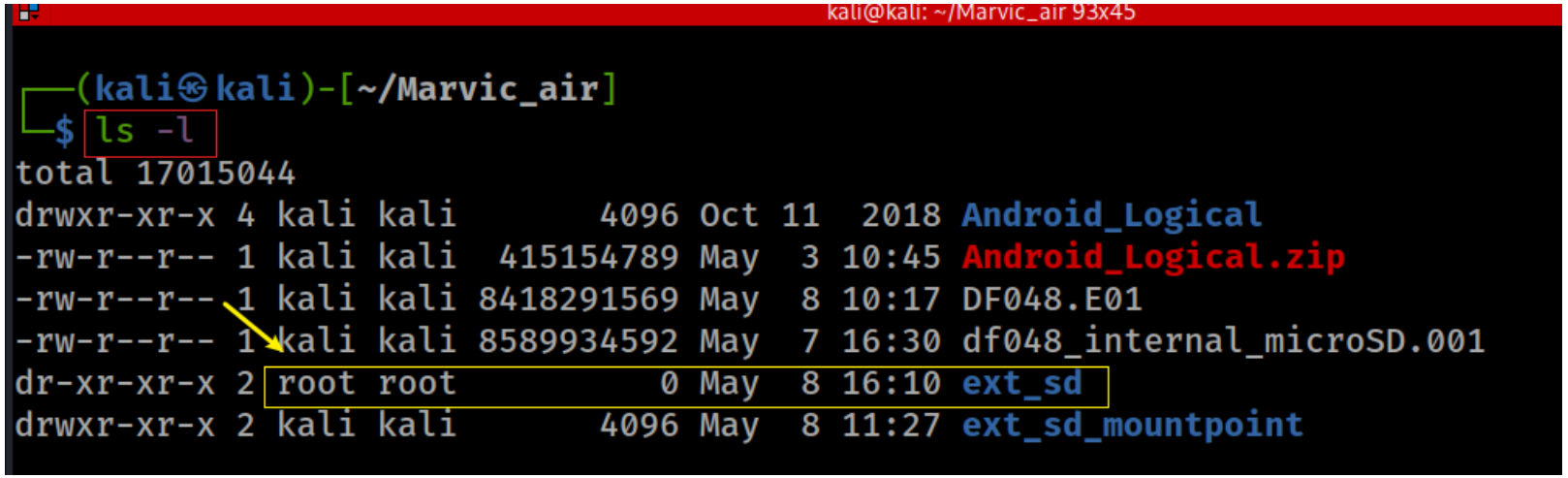


usage: ***ewfmount*** *image mount_point*

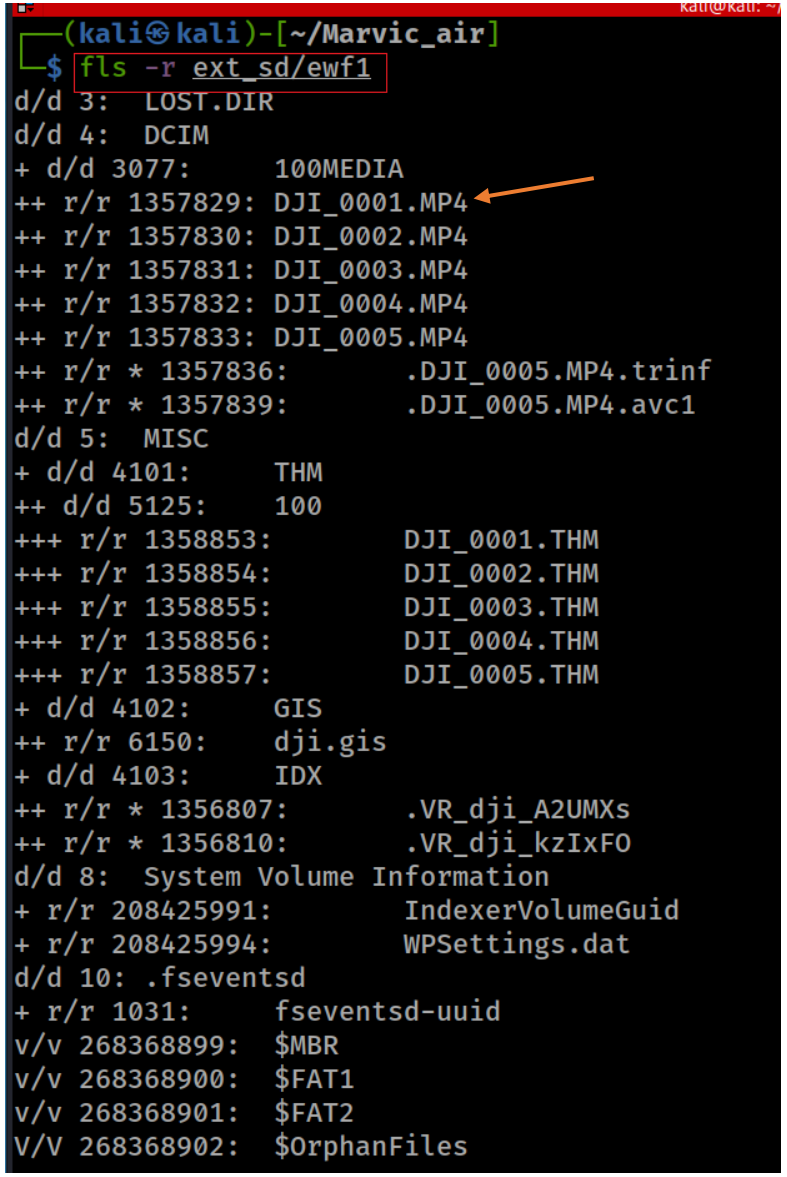
- *image: an Expert Witness Compression Format (EWF) image file*
- *mount_point: the directory to serve as mount point*



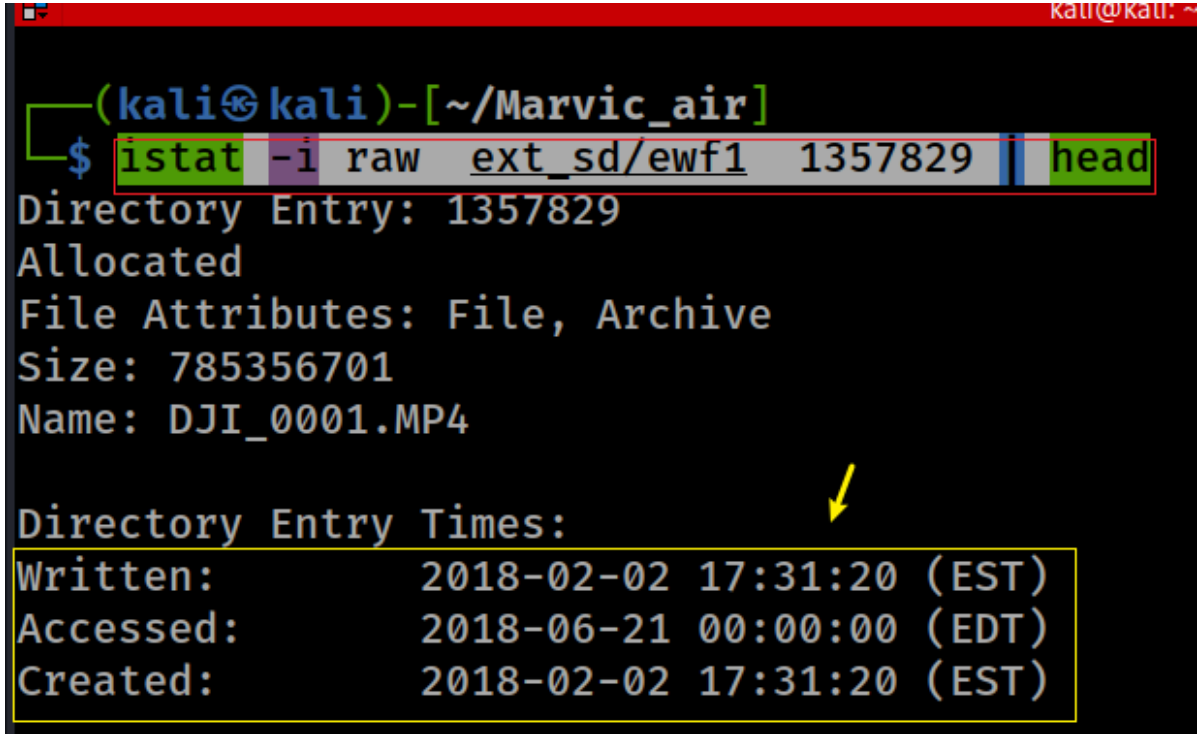
Note: the permission and owner have been changed



Show all files

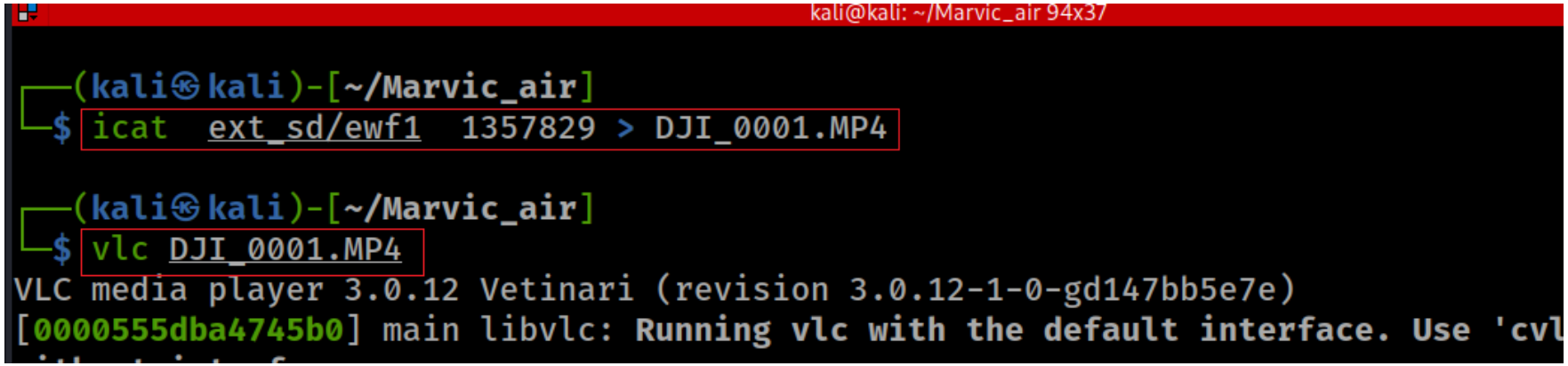


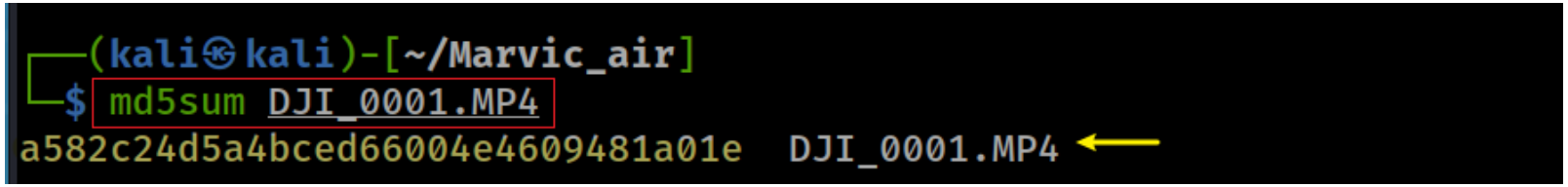
Where was the first video taken?



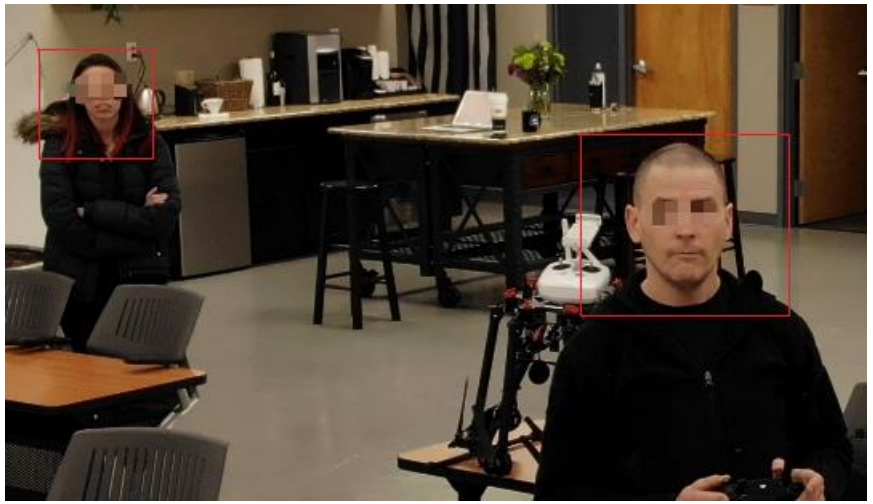
2018-02-02T17:31:20 EST

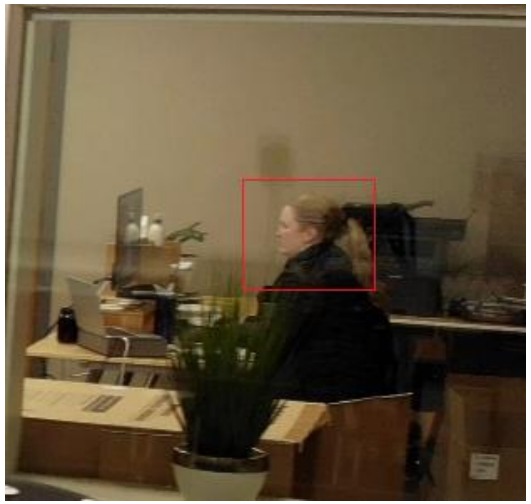
How to play the video?





How many people were shown on the first video?



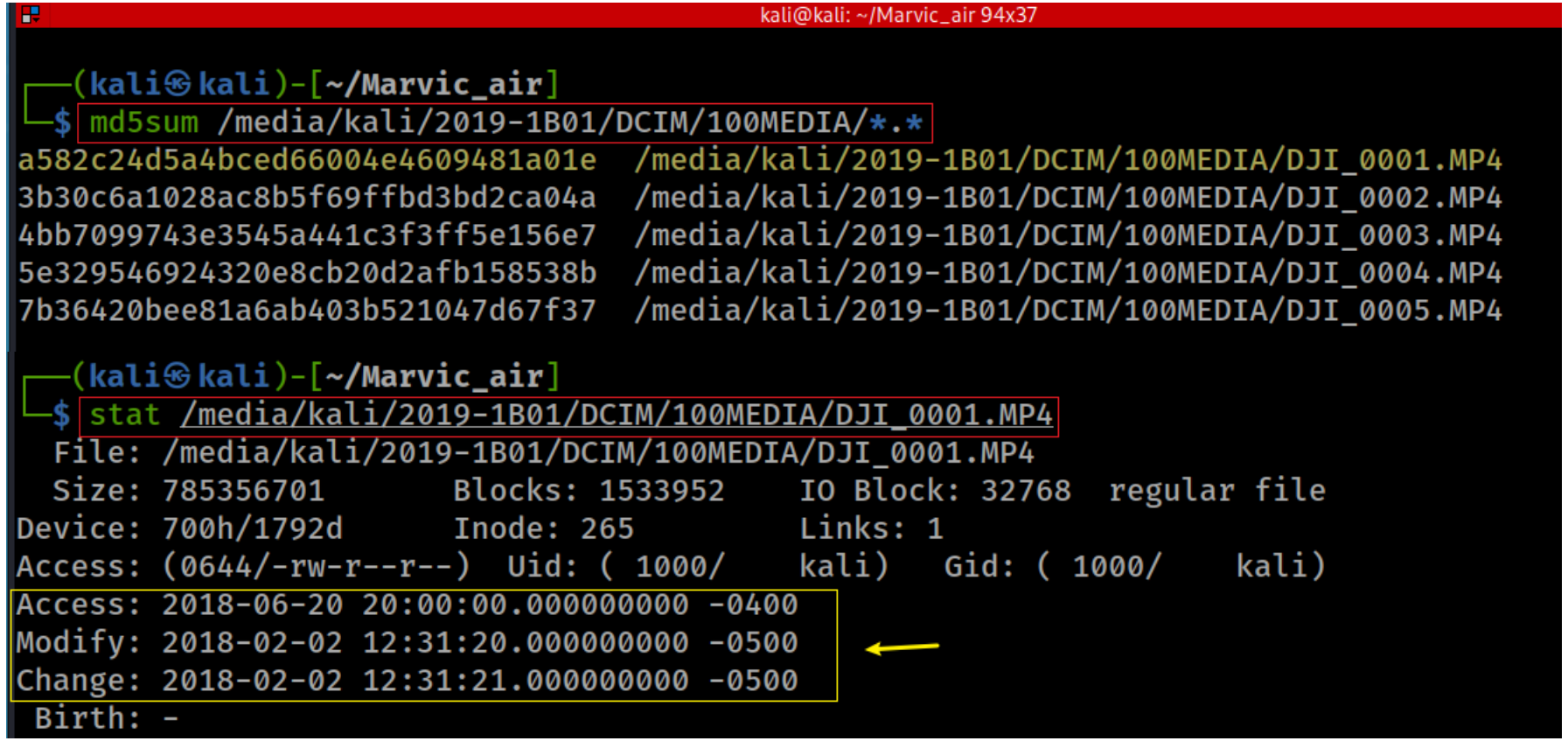


DJI_0001.MP4

three

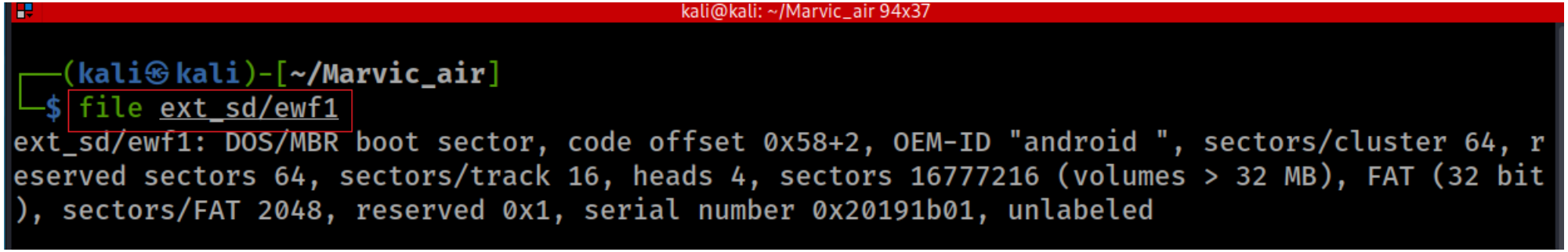
Is this video same as the video in internal microSD card?

recall the hashes/timestamps of videos in internal microSD card



same

Verify the serial number of the image



It turns out the microSD card is the same as internal microSD card