```
In [1]: import pandas as pd
```

```
In [5]: #1: loading data
        data_DF=pd.read_csv('report.csv')
```

```
In [6]: data_DF.head()
```

Out[6]:

	Indicator type	Indicator	Description
0	FileHash-SHA256	a1390a78533c47e55cc364e97af431117126d04a7faed4...	NaN
1	FileHash-SHA1	d6d205922e61635472efb13c2bb92c9ac6cb96da	NaN
2	FileHash-SHA1	c6a5b345cef4eb795866ba81dcac9bd933fdd86d	NaN
3	FileHash-SHA1	96b95edc1a917912a3181d5105fd5bfad1344de0	NaN
4	FileHash-MD5	fbe295e5a1acfbd0a6271898f885fe6a	NaN

```
In [8]: #2: Pulling Ip address
        print(pd.unique(data_DF['Indicator type']))

['FileHash-SHA256' 'FileHash-SHA1' 'FileHash-MD5' 'IPv4'
 'SSLCertFingerprint' 'domain']
```

```
In [12]: data_DF[data_DF['Indicator type']=='IPv4']
```

Out[12]:

	Indicator type	Indicator	Description
11	IPv4	5.188.86.18	CC=IE ASN=AS49453 Global Layer B.V.
18	IPv4	139.60.160.166	CC=US ASN=AS395839 HOSTKEY-USA
19	IPv4	45.182.189.71	CC=PA ASN=AS207688 DataHome S.A.
20	IPv4	81.19.135.30	CC=RU ASN=AS209588 Flyservers S.A.
21	IPv4	92.118.36.199	CC=RO ASN=AS209132 Alviva Holding Limited

```
In [13]: #3: Pulling Hash values : MD5
         data_DF[data_DF['Indicator type']=='FileHash-MD5']
```

Out[13]:

	Indicator type	Indicator	Descript
4	FileHash-MD5	fbe295e5a1acfbd0a6271898f885fe6a	N
6	FileHash-MD5	f33734dfbbff29f68bcde052e523c287	N
7	FileHash-MD5	f176ba63b4d68e576b5ba345bec2c7b7	N
8	FileHash-MD5	f14f2862ee2df5d0f63a88b60c8eee56	N
9	FileHash-MD5	a0e9f5d64349fb13191bc781f81f42e1	N
10	FileHash-MD5	72a589da586844d7f0818ce684948eea	N
12	FileHash-MD5	12011c44955fd6631113f68a99447515	MD5 4f4f8cf0f9b47d0ad95d159201fe7e72fbc844
13	FileHash-MD5	2dc57a3836e4393d4d16c4eb04bf9c7e	N
14	FileHash-MD5	6164e9d297d29aa8682971259da06848	MD5 96b95edc1a917912a3181d5105fd5bfad1344d

```
In [14]:  #  Pulling Hash values : SHA256
          data_DF[data_DF['Indicator type']=='FileHash-SHA256']
```

Out[14]:

	Indicator type	Indicator	
0	FileHash-SHA256	a1390a78533c47e55cc364e97af431117126d04a7faed4...	
15	FileHash-SHA256	121a1f64fff22c4bfcef3f11a23956ed403cdeb9bdb803...	
16	FileHash-SHA256	717beedcd2431785a0f59d194e47970e9544fbf398d462...	96b95edc1a917912a3181d5
17	FileHash-SHA256	c92c158d7c37fea795114fa6491fe5f145ad2f8c08776b...	4f4f8cf0f9b47d0ad95d15

```
In [15]:  #  Pulling Hash values : SHA1
          data_DF[data_DF['Indicator type']=='FileHash-SHA1']
```

Out[15]:

	Indicator type	Indicator	Description
1	FileHash-SHA1	d6d205922e61635472efb13c2bb92c9ac6cb96da	NaN
2	FileHash-SHA1	c6a5b345cef4eb795866ba81dcac9bd933fdd86d	NaN
3	FileHash-SHA1	96b95edc1a917912a3181d5105fd5bfad1344de0	NaN
5	FileHash-SHA1	4f4f8cf0f9b47d0ad95d159201fe7e72fbc8448d	NaN

In [26]:
```
#4: Deduplicating Hash values
#data_DF[data_DF['Indicator type'].isin (['FileHash-SHA256','FileHash-SHA1','FileHa
```

In [22]:
```
data_DF[data_DF['Indicator type'].isin (['FileHash-SHA256','FileHash-SHA1','FileHas
```

Out[22]:

Indicator type	Indicator	Description

In [25]:
```
#no duplicated value is present in the giver DIFR
```

In [ ]: