Data set 1

In [1]:

```python
import numpy as np
import pandas as pd
```

In [2]:

```python
a=pd.read_csv(r"C:\Users\user\Downloads\2015 - 2015.csv")
```
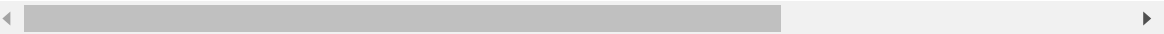
To print top rows:

In [3]:

```python
a.head()
```

Out[3]:

	Country	Region	Happiness Rank	Happiness Score	Standard Error	Economy (GDP per Capita)	Family	Health (Life Expectancy)	Fr
0	Switzerland	Western Europe	1	7.587	0.03411	1.39651	1.34951	0.94143	0
1	Iceland	Western Europe	2	7.561	0.04884	1.30232	1.40223	0.94784	0
2	Denmark	Western Europe	3	7.527	0.03328	1.32548	1.36058	0.87464	0
3	Norway	Western Europe	4	7.522	0.03880	1.45900	1.33095	0.88521	0
4	Canada	North America	5	7.427	0.03553	1.32629	1.32261	0.90563	0

To print Last rows:

In [4]:

```
a.tail()
```

Out[4]:

	Country	Region	Happiness Rank	Happiness Score	Standard Error	Economy (GDP per Capita)	Family	Health (Life Expectancy)	Fr
153	Rwanda	Sub-Saharan Africa	154	3.465	0.03464	0.22208	0.77370	0.42864	0
154	Benin	Sub-Saharan Africa	155	3.340	0.03656	0.28665	0.35386	0.31910	0
155	Syria	Middle East and Northern Africa	156	3.006	0.05015	0.66320	0.47489	0.72193	0
156	Burundi	Sub-Saharan Africa	157	2.905	0.08658	0.01530	0.41587	0.22396	0
157	Togo	Sub-Saharan Africa	158	2.839	0.06727	0.20868	0.13995	0.28443	0

Statistical Summary:

In [5]:

```
a.describe()
```

Out[5]:

	Happiness Rank	Happiness Score	Standard Error	Economy (GDP per Capita)	Family	Health (Life Expectancy)	Freedom
count	158.000000	158.000000	158.000000	158.000000	158.000000	158.000000	158.000000
mean	79.493671	5.375734	0.047885	0.846137	0.991046	0.630259	0.428615
std	45.754363	1.145010	0.017146	0.403121	0.272369	0.247078	0.150693
min	1.000000	2.839000	0.018480	0.000000	0.000000	0.000000	0.000000
25%	40.250000	4.526000	0.037268	0.545808	0.856823	0.439185	0.328330
50%	79.500000	5.232500	0.043940	0.910245	1.029510	0.696705	0.435515
75%	118.750000	6.243750	0.052300	1.158448	1.214405	0.811013	0.549092
max	158.000000	7.587000	0.136930	1.690420	1.402230	1.025250	0.669730

To print no of rows and columns

In [6]:

```
a.shape
```

Out[6]:

```
(158, 12)
```

To print no of elements

In [7]:

```
a.size
```

Out[7]:

```
1896
```

Missing no of values

In [8]:

```
pd.isna(a)
```

Out[8]:

	Country	Region	Happiness Rank	Happiness Score	Standard Error	Economy (GDP per Capita)	Family	Health (Life Expectancy)	Free
0	False	False	False	False	False	False	False	False	F
1	False	False	False	False	False	False	False	False	F
2	False	False	False	False	False	False	False	False	F
3	False	False	False	False	False	False	False	False	F
4	False	False	False	False	False	False	False	False	F
...	...	...	...	...	...	...	...	...	
153	False	False	False	False	False	False	False	False	F
154	False	False	False	False	False	False	False	False	F
155	False	False	False	False	False	False	False	False	F
156	False	False	False	False	False	False	False	False	F
157	False	False	False	False	False	False	False	False	F

158 rows × 12 columns

In [9]:

```python
a.fillna(value=3)
```

Out[9]:

	Country	Region	Happiness Rank	Happiness Score	Standard Error	Economy (GDP per Capita)	Family	Health (Life Expectancy)
0	Switzerland	Western Europe	1	7.587	0.03411	1.39651	1.34951	0.94143
1	Iceland	Western Europe	2	7.561	0.04884	1.30232	1.40223	0.94784
2	Denmark	Western Europe	3	7.527	0.03328	1.32548	1.36058	0.87464
3	Norway	Western Europe	4	7.522	0.03880	1.45900	1.33095	0.88521
4	Canada	North America	5	7.427	0.03553	1.32629	1.32261	0.90563
...	...	...	...	...	...	...	...	...
153	Rwanda	Sub-Saharan Africa	154	3.465	0.03464	0.22208	0.77370	0.42864
154	Benin	Sub-Saharan Africa	155	3.340	0.03656	0.28665	0.35386	0.31910
155	Syria	Middle East and Northern Africa	156	3.006	0.05015	0.66320	0.47489	0.72193
156	Burundi	Sub-Saharan Africa	157	2.905	0.08658	0.01530	0.41587	0.22396
157	Togo	Sub-Saharan Africa	158	2.839	0.06727	0.20868	0.13995	0.28443

158 rows × 12 columns

In [10]:

```
conda install matplotlib
```

Collecting package metadata (current_repodata.json): ...working... done
Solving environment: ...working... done

All requested packages already installed.

Note: you may need to restart the kernel to use updated packages.

==> WARNING: A newer version of conda exists. <==
  current version: 4.10.1
  latest version: 23.5.2

Please update conda by running

    $ conda update -n base -c defaults conda

In [11]:

```
import matplotlib.pyplot as pp
```

In [12]:

```
b=a[['Happiness Rank','Family']]
b
```

Out[12]:

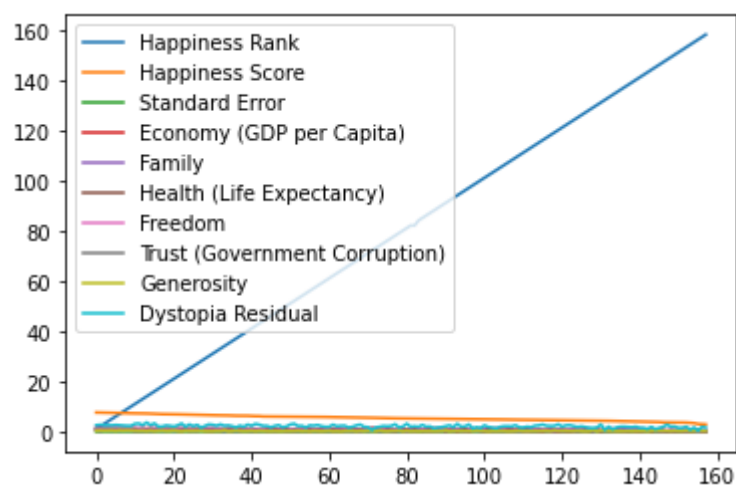|	Happiness Rank	Family
0	1	1.34951
1	2	1.40223
2	3	1.36058
3	4	1.33095
4	5	1.32261
...	...	...
153	154	0.77370
154	155	0.35386
155	156	0.47489
156	157	0.41587
157	158	0.13995

158 rows × 2 columns

In [13]:

```
a.plot.line()
```

Out[13]:

<AxesSubplot:>
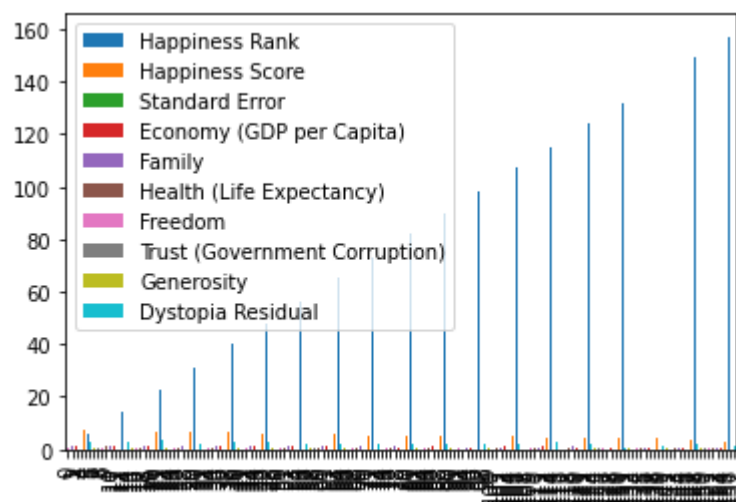

In [14]:

```
a.plot.bar()
```

Out[14]:

<AxesSubplot:>
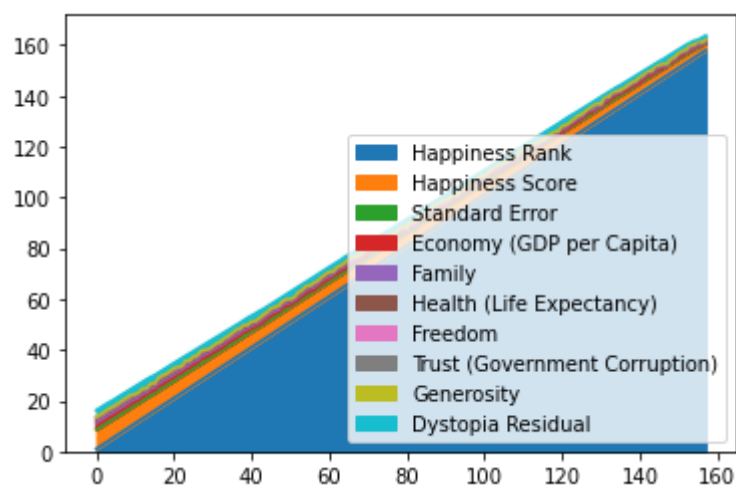
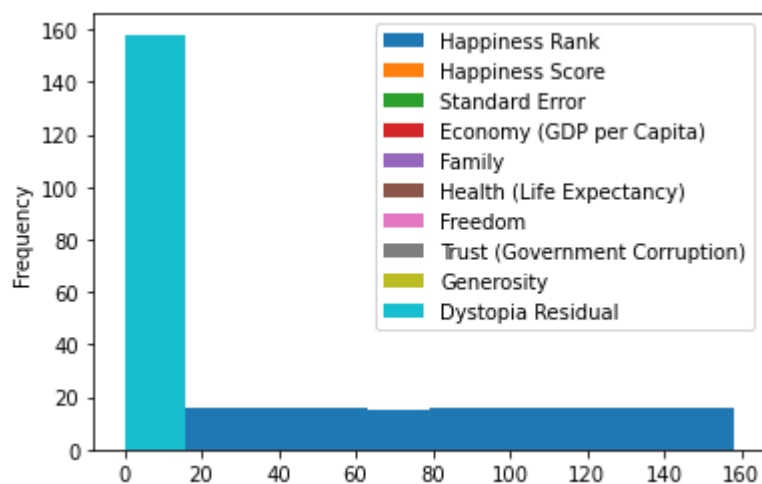In [15]:

```
a.plot.area()
```

Out[15]:

<AxesSubplot:>

In [16]:

```
a.plot.hist()
```
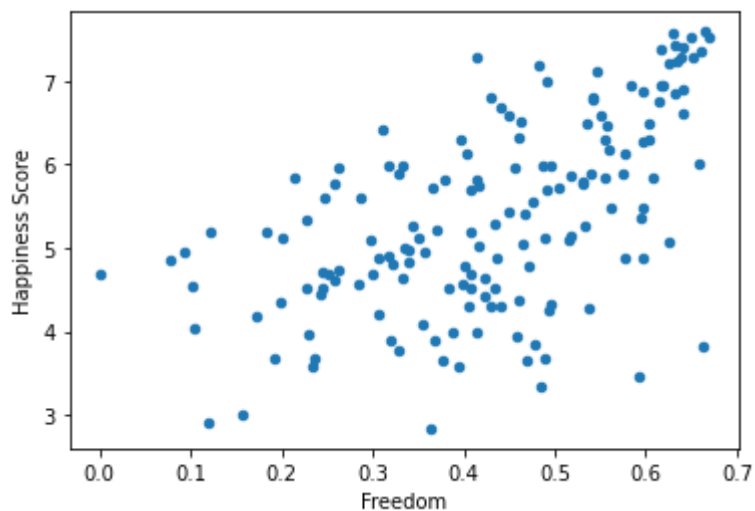
Out[16]:

<AxesSubplot:ylabel='Frequency'>

In [17]:

```
a.plot.box()
```

Out[17]:

`<AxesSubplot:>`

In [18]:

```
a.plot.pie(y='Standard Error',figsize=(10,10))
```

In [19]:

```python
a.plot.scatter(x='Freedom',y='Happiness Score')
```

Out[19]:

```
<AxesSubplot:xlabel='Freedom', ylabel='Happiness Score'>
```


In [ ]: