1.Importing libraries

In [1]:
```
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
```

2. importing dataset

In [2]:
```
data=pd.read_csv(r"C:\Users\user\Downloads\VE.CSV.csv")
data
```

Out[2]:

	Country	Region	Happiness Rank	Happiness Score	Standard Error	Economy (GDP per Capita)	Family	Health (Life Expectancy)	Freedom
0	Switzerland	Western Europe	1	7.587	0.03411	1.39651	1.34951	0.94143	0.66557
1	Iceland	Western Europe	2	7.561	0.04884	1.30232	1.40223	0.94784	0.62877
2	Denmark	Western Europe	3	7.527	0.03328	1.32548	1.36058	0.87464	0.64938
3	Norway	Western Europe	4	7.522	0.03880	1.45900	1.33095	0.88521	0.66973
4	Canada	North America	5	7.427	0.03553	1.32629	1.32261	0.90563	0.63297
...	...	...	...	...	...	...	...	...	...
153	Rwanda	Sub-Saharan Africa	154	3.465	0.03464	0.22208	0.77370	0.42864	0.59201
154	Benin	Sub-Saharan Africa	155	3.340	0.03656	0.28665	0.35386	0.31910	0.48450
155	Syria	Middle East and Northern Africa	156	3.006	0.05015	0.66320	0.47489	0.72193	0.15684
156	Burundi	Sub-Saharan Africa	157	2.905	0.08658	0.01530	0.41587	0.22396	0.11850
157	Togo	Sub-Saharan Africa	158	2.839	0.06727	0.20868	0.13995	0.28443	0.36453

158 rows × 12 columns

3.head()

In [3]:
```
data.head(7)
```

Out[3]:

	Country	Region	Happiness Rank	Happiness Score	Standard Error	Economy (GDP per Capita)	Family	Health (Life Expectancy)	Freedom	(G C
0	Switzerland	Western Europe	1	7.587	0.03411	1.39651	1.34951	0.94143	0.66557	
1	Iceland	Western Europe	2	7.561	0.04884	1.30232	1.40223	0.94784	0.62877	
2	Denmark	Western Europe	3	7.527	0.03328	1.32548	1.36058	0.87464	0.64938	
3	Norway	Western Europe	4	7.522	0.03880	1.45900	1.33095	0.88521	0.66973	
4	Canada	North America	5	7.427	0.03553	1.32629	1.32261	0.90563	0.63297	
5	Finland	Western Europe	6	7.406	0.03140	1.29025	1.31826	0.88911	0.64169	
6	Netherlands	Western Europe	7	7.378	0.02799	1.32944	1.28017	0.89284	0.61576	

4.tail()

In [4]:
```
data.tail(8)
```

Out[4]:

	Country	Region	Happiness Rank	Happiness Score	Standard Error	Economy (GDP per Capita)	Family	Health (Life Expectancy)	Freedom
150	Ivory Coast	Sub-Saharan Africa	151	3.655	0.05141	0.46534	0.77115	0.15185	0.46866
151	Burkina Faso	Sub-Saharan Africa	152	3.587	0.04324	0.25812	0.85188	0.27125	0.39493
152	Afghanistan	Southern Asia	153	3.575	0.03084	0.31982	0.30285	0.30335	0.23414
153	Rwanda	Sub-Saharan Africa	154	3.465	0.03464	0.22208	0.77370	0.42864	0.59201
154	Benin	Sub-Saharan Africa	155	3.340	0.03656	0.28665	0.35386	0.31910	0.48450

	Country	Region	Happiness Rank	Happiness Score	Standard Error	Economy (GDP per Capita)	Family	Health (Life Expectancy)	Freedom
155	Syria	Middle East and Northern Africa	156	3.006	0.05015	0.66320	0.47489	0.72193	0.15684
156	Burundi	Sub-Saharan Africa	157	2.905	0.08658	0.01530	0.41587	0.22396	0.11850
157	Togo	Sub-Saharan Africa	158	2.839	0.06727	0.20868	0.13995	0.28443	0.36453

5.describe()

In [5]:
```
data.describe()
```

Out[5]:

	Happiness Rank	Happiness Score	Standard Error	Economy (GDP per Capita)	Family	Health (Life Expectancy)	Freedom	Trus (Governmer Corruptior
count	158.000000	158.000000	158.000000	158.000000	158.000000	158.000000	158.000000	158.00000
mean	79.493671	5.375734	0.047885	0.846137	0.991046	0.630259	0.428615	0.14342
std	45.754363	1.145010	0.017146	0.403121	0.272369	0.247078	0.150693	0.12003
min	1.000000	2.839000	0.018480	0.000000	0.000000	0.000000	0.000000	0.00000
25%	40.250000	4.526000	0.037268	0.545808	0.856823	0.439185	0.328330	0.06167
50%	79.500000	5.232500	0.043940	0.910245	1.029510	0.696705	0.435515	0.10722
75%	118.750000	6.243750	0.052300	1.158448	1.214405	0.811013	0.549092	0.18025
max	158.000000	7.587000	0.136930	1.690420	1.402230	1.025250	0.669730	0.55191

6.shape

In [6]:
```
np.shape(data)
```

Out[6]:
```
(158, 12)
```

7.size

In [7]:
```
np.size(data)
```

Out[7]: 1896

8.isna()

In [8]:
```
data.isna()
```

Out[8]:

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

158 rows × 12 columns

9.dropna

In [9]:
```
data.dropna()
```

Out[9]:

	Country	Region	Happiness Rank	Happiness Score	Standard Error	Economy (GDP per Capita)	Family	Health (Life Expectancy)	Freedom
0	Switzerland	Western Europe	1	7.587	0.03411	1.39651	1.34951	0.94143	0.66557
1	Iceland	Western Europe	2	7.561	0.04884	1.30232	1.40223	0.94784	0.62877
2	Denmark	Western Europe	3	7.527	0.03328	1.32548	1.36058	0.87464	0.64938
3	Norway	Western Europe	4	7.522	0.03880	1.45900	1.33095	0.88521	0.66973
4	Canada	North America	5	7.427	0.03553	1.32629	1.32261	0.90563	0.63297

	Country	Region	Happiness Rank	Happiness Score	Standard Error	Economy (GDP per Capita)	Family	Health (Life Expectancy)	Freedom
...	...	...	...	...	...	...	...	...	...
153	Rwanda	Sub-Saharan Africa	154	3.465	0.03464	0.22208	0.77370	0.42864	0.59201
154	Benin	Sub-Saharan Africa	155	3.340	0.03656	0.28665	0.35386	0.31910	0.48450
155	Syria	Middle East and Northern Africa	156	3.006	0.05015	0.66320	0.47489	0.72193	0.15684
156	Burundi	Sub-Saharan Africa	157	2.905	0.08658	0.01530	0.41587	0.22396	0.11850
157	Togo	Sub-Saharan Africa	158	2.839	0.06727	0.20868	0.13995	0.28443	0.36453

158 rows × 12 columns

10. selecting specific columns

In [10]:
```
da=data[["Happiness Rank","Family"]]
da
```

Out[10]:

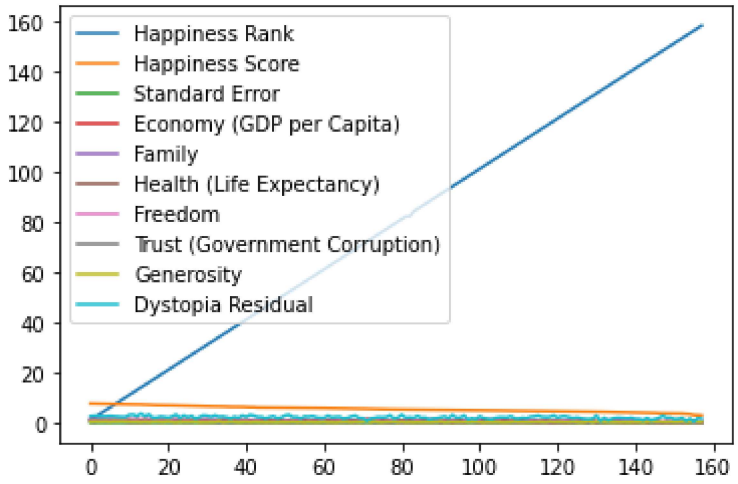
	Happiness Rank	Family
0	1	1.34951
1	2	1.40223
2	3	1.36058
3	4	1.33095
4	5	1.32261
...	...	...
153	154	0.77370
154	155	0.35386
155	156	0.47489
156	157	0.41587
157	158	0.13995

158 rows × 2 columns

11.line plot

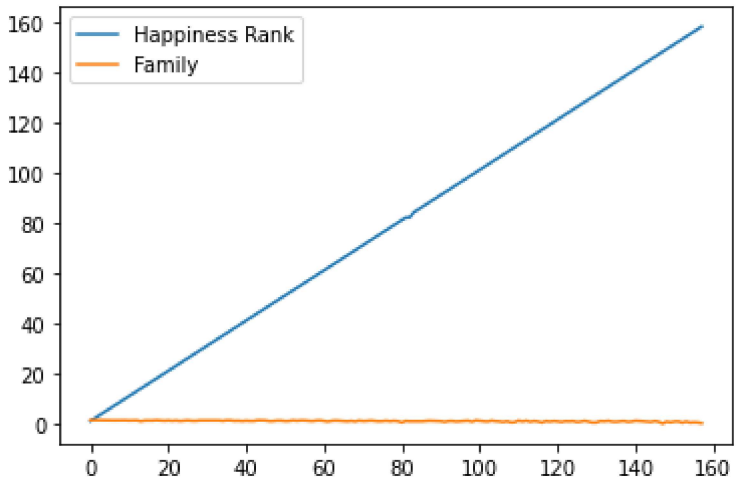
In [11]:
```
data.plot.line()
```

Out[11]: <AxesSubplot:>



In [12]:
```
da.plot.line()
```

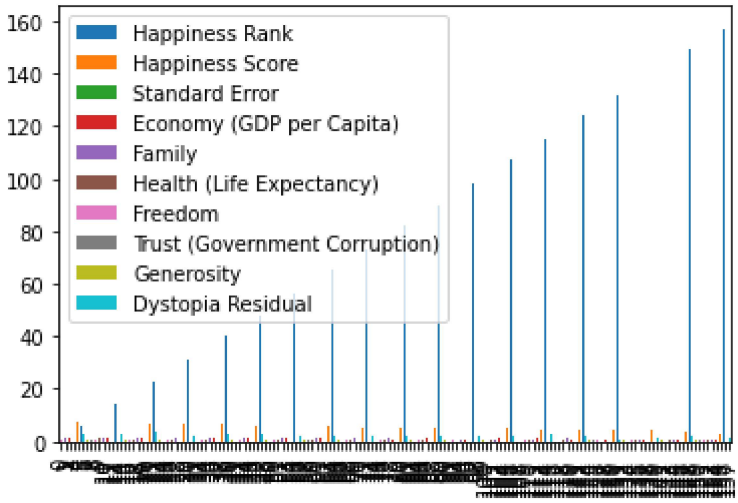
Out[12]: <AxesSubplot:>



12.bar plot

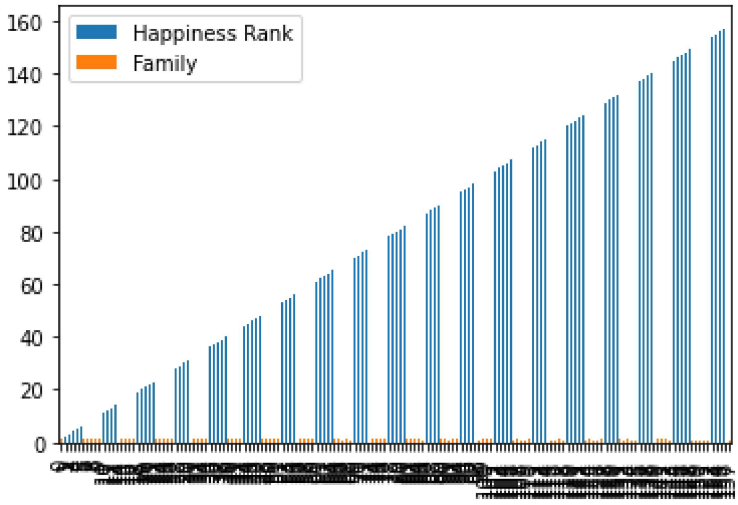
In [13]:
```
data.plot.bar()
```

Out[13]: <AxesSubplot:>



In [14]:
```
da.plot.bar()
```

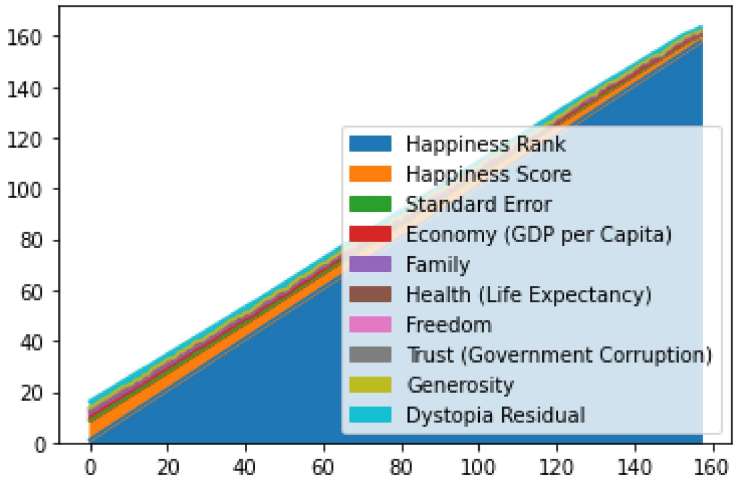
Out[14]: <AxesSubplot:>



13.area plot

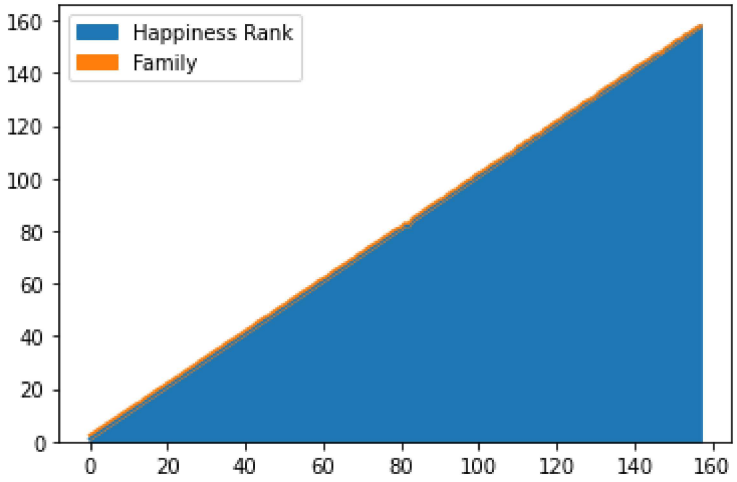
In [15]:
```
data.plot.area()
```

Out[15]: <AxesSubplot:>



In [16]:
```
da.plot.area()
```

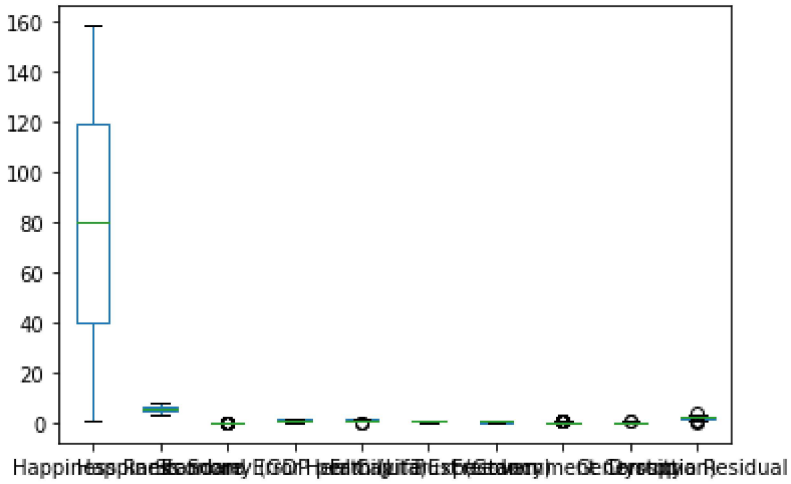
Out[16]: <AxesSubplot:>



14.BOX plot

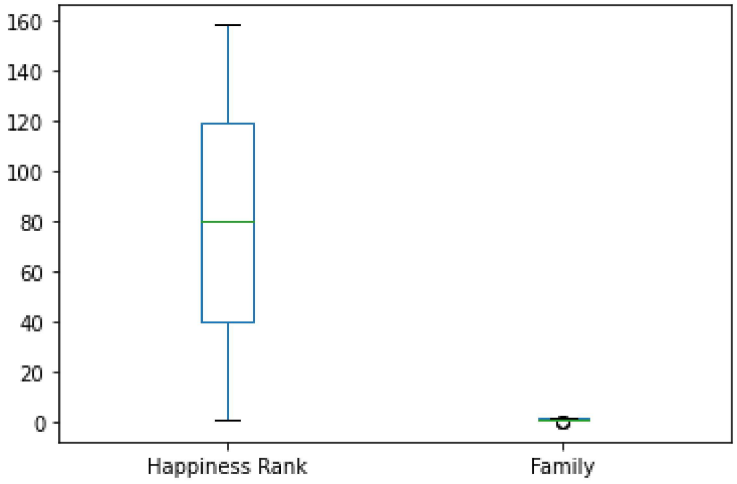
In [17]:
```
data.plot.box()
```

Out[17]: <AxesSubplot:>



In [18]:
```
da.plot.box()
```

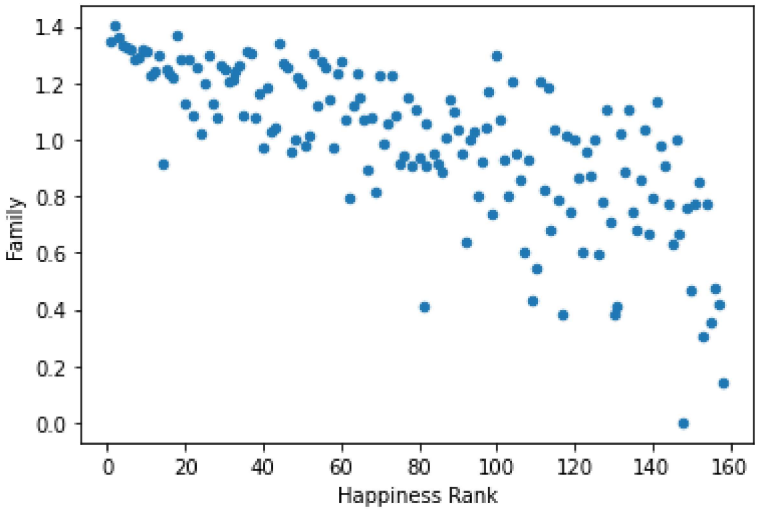
Out[18]: <AxesSubplot:>



15.scatter plot

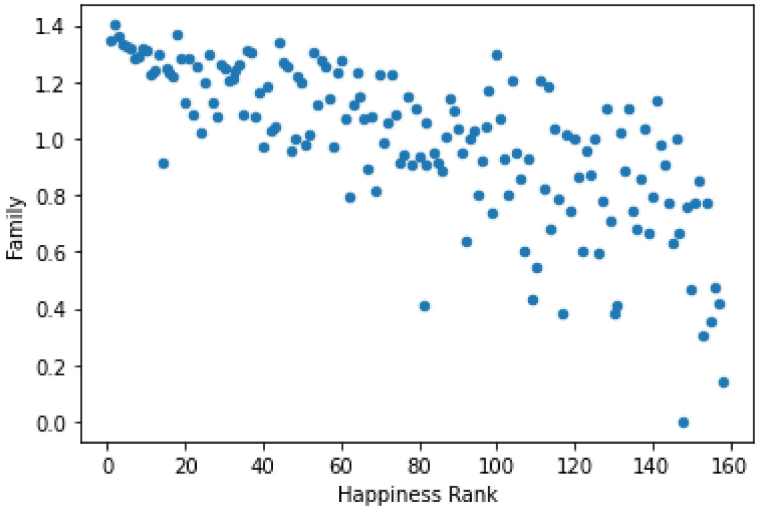
In [20]:
```
data.plot.scatter(x="Happiness Rank",y="Family")
```

Out[20]: <AxesSubplot:xlabel='Happiness Rank', ylabel='Family'>



In [21]:
```
da.plot.scatter(x="Happiness Rank",y="Family")
```

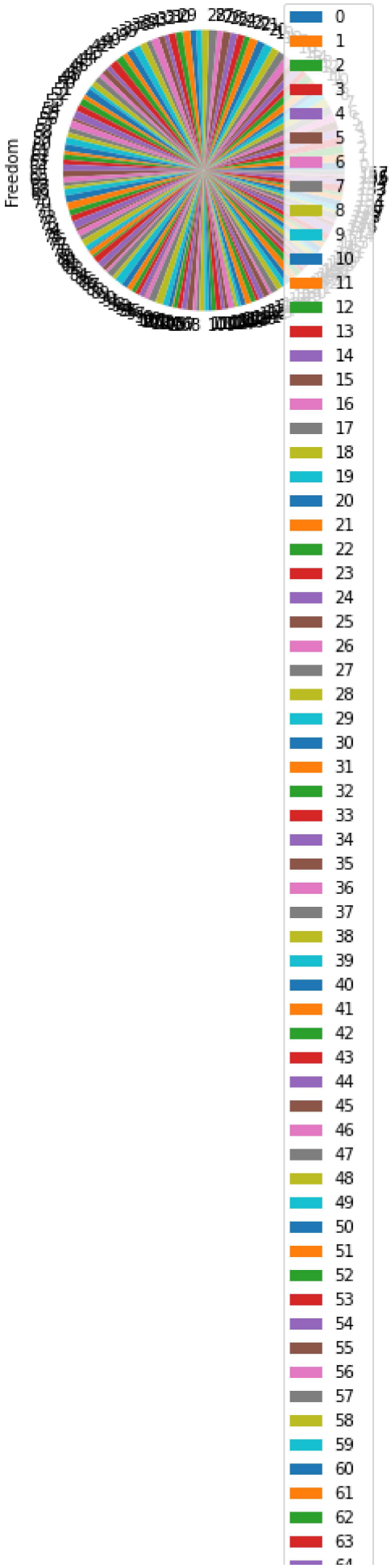
Out[21]: <AxesSubplot:xlabel='Happiness Rank', ylabel='Family'>



16.pie chart

In [22]:
```
data.plot.pie(x="Standard Error",y="Freedom")
```

Out[22]: <AxesSubplot:ylabel='Freedom'>


Freedom
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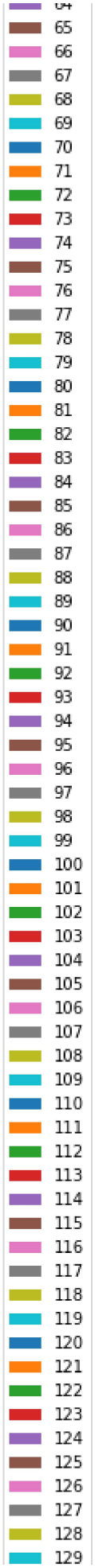
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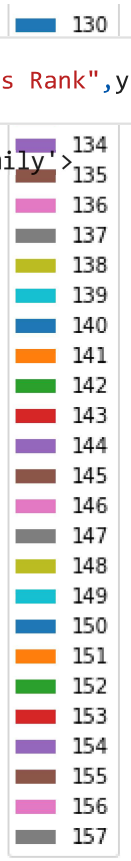
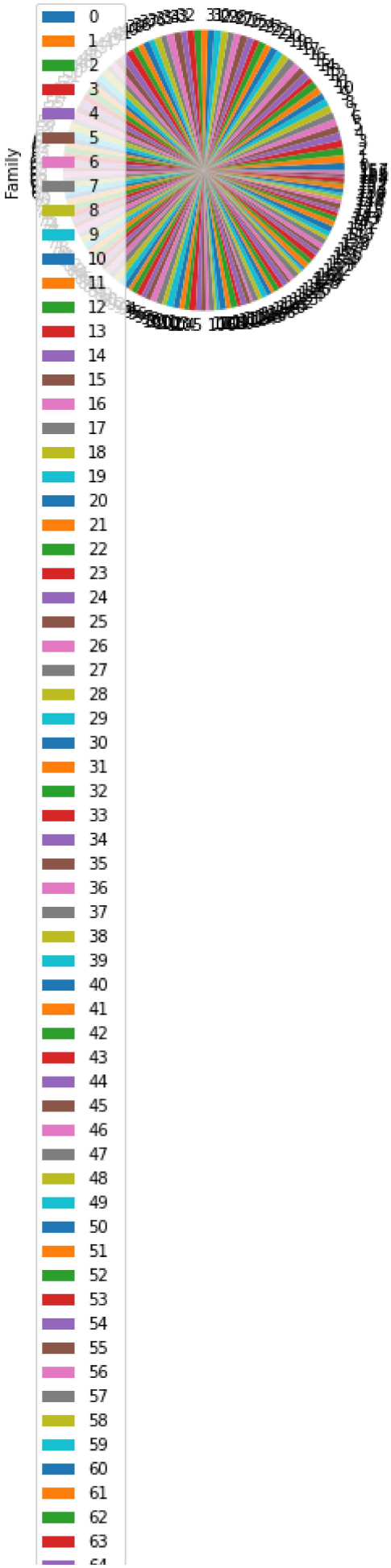
In [23]:
```
da.plot.pie(x="Happiness Rank",y="Family")
```

Out[23]: <AxesSubplot:ylabel='Family'>




Family
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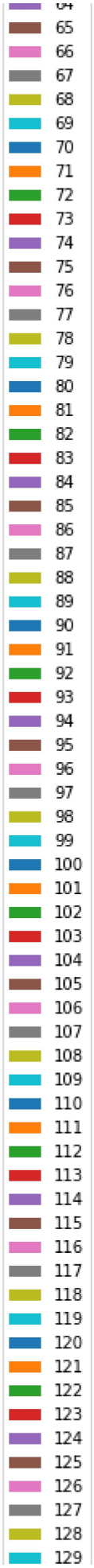
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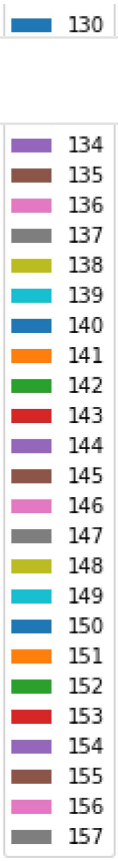
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In [ ]: