Analyse using two given datasets

In [1]:
```python
import numpy as np
import pandas as pd
```

In [3]:
```python
data=pd.read_csv(r"E:\New folder\2015.csv")
data
```

Out[3]:

	Country	Region	Happiness Rank	Happiness Score	Standard Error	Economy (GDP per Capita)	Family	Health (Life Expectancy)	Freedom	Trust (Government Corruption)	Generosity	Dystopia Residual
0	Switzerland	Western Europe	1	7.587	0.03411	1.39651	1.34951	0.94143	0.66557	0.41978	0.29678	2.51738
1	Iceland	Western Europe	2	7.561	0.04884	1.30232	1.40223	0.94784	0.62877	0.14145	0.43630	2.70201
2	Denmark	Western Europe	3	7.527	0.03328	1.32548	1.36058	0.87464	0.64938	0.48357	0.34139	2.49204
3	Norway	Western Europe	4	7.522	0.03880	1.45900	1.33095	0.88521	0.66973	0.36503	0.34699	2.46531
4	Canada	North America	5	7.427	0.03553	1.32629	1.32261	0.90563	0.63297	0.32957	0.45811	2.45176
...	...	...	...	...	...	...	...	...	...	...	...	...
153	Rwanda	Sub-Saharan Africa	154	3.465	0.03464	0.22208	0.77370	0.42864	0.59201	0.55191	0.22628	0.67042
154	Benin	Sub-Saharan Africa	155	3.340	0.03656	0.28665	0.35386	0.31910	0.48450	0.08010	0.18260	1.63328
155	Syria	Middle East and Northern Africa	156	3.006	0.05015	0.66320	0.47489	0.72193	0.15684	0.18906	0.47179	0.32858
156	Burundi	Sub-Saharan Africa	157	2.905	0.08658	0.01530	0.41587	0.22396	0.11850	0.10062	0.19727	1.83302
157	Togo	Sub-Saharan Africa	158	2.839	0.06727	0.20868	0.13995	0.28443	0.36453	0.10731	0.16681	1.56726

158 rows × 12 columns

In [4]:
```python
data.head(10)
```

Out[4]:

	Country	Region	Happiness Rank	Happiness Score	Standard Error	Economy (GDP per Capita)	Family	Health (Life Expectancy)	Freedom	Trust (Government Corruption)	Generosity	Dystopia Residual
0	Switzerland	Western Europe	1	7.587	0.03411	1.39651	1.34951	0.94143	0.66557	0.41978	0.29678	2.51738
1	Iceland	Western Europe	2	7.561	0.04884	1.30232	1.40223	0.94784	0.62877	0.14145	0.43630	2.70201
2	Denmark	Western Europe	3	7.527	0.03328	1.32548	1.36058	0.87464	0.64938	0.48357	0.34139	2.49204
3	Norway	Western Europe	4	7.522	0.03880	1.45900	1.33095	0.88521	0.66973	0.36503	0.34699	2.46531
4	Canada	North America	5	7.427	0.03553	1.32629	1.32261	0.90563	0.63297	0.32957	0.45811	2.45176
5	Finland	Western Europe	6	7.406	0.03140	1.29025	1.31826	0.88911	0.64169	0.41372	0.23351	2.61955
6	Netherlands	Western Europe	7	7.378	0.02799	1.32944	1.28017	0.89284	0.61576	0.31814	0.47610	2.46570
7	Sweden	Western Europe	8	7.364	0.03157	1.33171	1.28907	0.91087	0.65980	0.43844	0.36262	2.37119
8	New Zealand	Australia and New Zealand	9	7.286	0.03371	1.25018	1.31967	0.90837	0.63938	0.42922	0.47501	2.26425
9	Australia	Australia and New Zealand	10	7.284	0.04083	1.33358	1.30923	0.93156	0.65124	0.35637	0.43562	2.26646

In [6]: `data.tail(30)`

Out[6]:

	Country	Region	Happiness Rank	Happiness Score	Standard Error	Economy (GDP per Capita)	Family	Health (Life Expectancy)	Freedom	Trust (Government Corruption)	Generosity	Dystopia Residual
128	Myanmar	Southeastern Asia	129	4.307	0.04351	0.27108	0.70905	0.48246	0.44017	0.19034	0.79588	1.41805
129	Georgia	Central and Eastern Europe	130	4.297	0.04221	0.74190	0.38562	0.72926	0.40577	0.38331	0.05547	1.59541
130	Malawi	Sub-Saharan Africa	131	4.292	0.06130	0.01604	0.41134	0.22562	0.43054	0.06977	0.33128	2.80791
131	Sri Lanka	Southern Asia	132	4.271	0.03751	0.83524	1.01905	0.70806	0.53726	0.09179	0.40828	0.67108
132	Cameroon	Sub-Saharan Africa	133	4.252	0.04678	0.42250	0.88767	0.23402	0.49309	0.05786	0.20618	1.95071
133	Bulgaria	Central and Eastern Europe	134	4.218	0.04828	1.01216	1.10614	0.76649	0.30587	0.00872	0.11921	0.89991
134	Egypt	Middle East and Northern Africa	135	4.194	0.03260	0.88180	0.74700	0.61712	0.17288	0.06324	0.11291	1.59927
135	Yemen	Middle East and Northern Africa	136	4.077	0.04367	0.54649	0.68093	0.40064	0.35571	0.07854	0.09131	1.92313
136	Angola	Sub-Saharan Africa	137	4.033	0.04758	0.75778	0.86040	0.16683	0.10384	0.07122	0.12344	1.94939
137	Mali	Sub-Saharan Africa	138	3.995	0.05602	0.26074	1.03526	0.20583	0.38857	0.12352	0.18798	1.79293
138	Congo (Brazzaville)	Sub-Saharan Africa	139	3.989	0.06682	0.67866	0.66290	0.31051	0.41466	0.11686	0.12388	1.68135
139	Comoros	Sub-Saharan Africa	140	3.956	0.04797	0.23906	0.79273	0.36315	0.22917	0.19900	0.17441	1.95812
140	Uganda	Sub-Saharan Africa	141	3.931	0.04317	0.21102	1.13299	0.33861	0.45727	0.07267	0.29066	1.42766
141	Senegal	Sub-Saharan Africa	142	3.904	0.03608	0.36498	0.97619	0.43540	0.36772	0.10713	0.20843	1.44395
142	Gabon	Sub-Saharan Africa	143	3.896	0.04547	1.06024	0.90528	0.43372	0.31914	0.11091	0.06822	0.99895
143	Niger	Sub-Saharan Africa	144	3.845	0.03602	0.06940	0.77265	0.29707	0.47692	0.15639	0.19387	1.87877
144	Cambodia	Southeastern Asia	145	3.819	0.05069	0.46038	0.62736	0.61114	0.66246	0.07247	0.40359	0.98195
145	Tanzania	Sub-Saharan Africa	146	3.781	0.05061	0.28520	1.00268	0.38215	0.32878	0.05747	0.34377	1.38079
146	Madagascar	Sub-Saharan Africa	147	3.681	0.03633	0.20824	0.66801	0.46721	0.19184	0.08124	0.21333	1.85100
147	Central African Republic	Sub-Saharan Africa	148	3.678	0.06112	0.07850	0.00000	0.06699	0.48879	0.08289	0.23835	2.72230
148	Chad	Sub-Saharan Africa	149	3.667	0.03830	0.34193	0.76062	0.15010	0.23501	0.05269	0.18386	1.94296
149	Guinea	Sub-Saharan Africa	150	3.656	0.03590	0.17417	0.46475	0.24009	0.37725	0.12139	0.28657	1.99172
150	Ivory Coast	Sub-Saharan Africa	151	3.655	0.05141	0.46534	0.77115	0.15185	0.46866	0.17922	0.20165	1.41723
151	Burkina Faso	Sub-Saharan Africa	152	3.587	0.04324	0.25812	0.85188	0.27125	0.39493	0.12832	0.21747	1.46494
152	Afghanistan	Southern Asia	153	3.575	0.03084	0.31982	0.30285	0.30335	0.23414	0.09719	0.36510	1.95210
153	Rwanda	Sub-Saharan Africa	154	3.465	0.03464	0.22208	0.77370	0.42864	0.59201	0.55191	0.22628	0.67042
154	Benin	Sub-Saharan Africa	155	3.340	0.03656	0.28665	0.35386	0.31910	0.48450	0.08010	0.18260	1.63328
155	Syria	Middle East and Northern Africa	156	3.006	0.05015	0.66320	0.47489	0.72193	0.15684	0.18906	0.47179	0.32858
156	Burundi	Sub-Saharan Africa	157	2.905	0.08658	0.01530	0.41587	0.22396	0.11850	0.10062	0.19727	1.83302
157	Togo	Sub-Saharan Africa	158	2.839	0.06727	0.20868	0.13995	0.28443	0.36453	0.10731	0.16681	1.56726

In [7]: `data.describe()`

Out[7]:

	Happiness Rank	Happiness Score	Standard Error	Economy (GDP per Capita)	Family	Health (Life Expectancy)	Freedom	Trust (Government Corruption)	Generosity	Dystopia Residual
count	158.000000	158.000000	158.000000	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	0.143422	0.237296	2.098977
std	45.754363	1.145010	0.017146	0.403121	0.272369	0.247078	0.150693	0.120034	0.126685	0.553550
min	1.000000	2.839000	0.018480	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.328580
25%	40.250000	4.526000	0.037268	0.545808	0.856823	0.439185	0.328330	0.061675	0.150553	1.759410
50%	79.500000	5.232500	0.043940	0.910245	1.029510	0.696705	0.435515	0.107220	0.216130	2.095415
75%	118.750000	6.243750	0.052300	1.158448	1.214405	0.811013	0.549092	0.180255	0.309883	2.462415
max	158.000000	7.587000	0.136930	1.690420	1.402230	1.025250	0.669730	0.551910	0.795880	3.602140

In [8]: `data.shape`

Out[8]: `(158, 12)`

In [9]: `data.size`

Out[9]: 1896

In [10]: `data.isna()`

Out[10]:

	Country	Region	Happiness Rank	Happiness Score	Standard Error	Economy (GDP per Capita)	Family	Health (Life Expectancy)	Freedom	Trust (Government Corruption)	Generosity	Dystopia Residual
0	False	False	False	False	False	False	False	False	False	False	False	False
1	False	False	False	False	False	False	False	False	False	False	False	False
2	False	False	False	False	False	False	False	False	False	False	False	False
3	False	False	False	False	False	False	False	False	False	False	False	False
4	False	False	False	False	False	False	False	False	False	False	False	False
...	...	...	...	...	...	...	...	...	...	...	...	...
153	False	False	False	False	False	False	False	False	False	False	False	False
154	False	False	False	False	False	False	False	False	False	False	False	False
155	False	False	False	False	False	False	False	False	False	False	False	False
156	False	False	False	False	False	False	False	False	False	False	False	False
157	False	False	False	False	False	False	False	False	False	False	False	False

158 rows × 12 columns

In [12]: `data.fillna(value=20)`

Out[12]:

	Country	Region	Happiness Rank	Happiness Score	Standard Error	Economy (GDP per Capita)	Family	Health (Life Expectancy)	Freedom	Trust (Government Corruption)	Generosity	Dystopia Residual
0	Switzerland	Western Europe	1	7.587	0.03411	1.39651	1.34951	0.94143	0.66557	0.41978	0.29678	2.51738
1	Iceland	Western Europe	2	7.561	0.04884	1.30232	1.40223	0.94784	0.62877	0.14145	0.43630	2.70201
2	Denmark	Western Europe	3	7.527	0.03328	1.32548	1.36058	0.87464	0.64938	0.48357	0.34139	2.49204
3	Norway	Western Europe	4	7.522	0.03880	1.45900	1.33095	0.88521	0.66973	0.36503	0.34699	2.46531
4	Canada	North America	5	7.427	0.03553	1.32629	1.32261	0.90563	0.63297	0.32957	0.45811	2.45176
...	...	...	...	...	...	...	...	...	...	...	...	...
153	Rwanda	Sub-Saharan Africa	154	3.465	0.03464	0.22208	0.77370	0.42864	0.59201	0.55191	0.22628	0.67042
154	Benin	Sub-Saharan Africa	155	3.340	0.03656	0.28665	0.35386	0.31910	0.48450	0.08010	0.18260	1.63328
155	Syria	Middle East and Northern Africa	156	3.006	0.05015	0.66320	0.47489	0.72193	0.15684	0.18906	0.47179	0.32858
156	Burundi	Sub-Saharan Africa	157	2.905	0.08658	0.01530	0.41587	0.22396	0.11850	0.10062	0.19727	1.83302
157	Togo	Sub-Saharan Africa	158	2.839	0.06727	0.20868	0.13995	0.28443	0.36453	0.10731	0.16681	1.56726

158 rows × 12 columns

In [14]: `data.dropna(axis=1,how='any')`

Out[14]:

	Country	Region	Happiness Rank	Happiness Score	Standard Error	Economy (GDP per Capita)	Family	Health (Life Expectancy)	Freedom	Trust (Government Corruption)	Generosity	Dystopia Residual
0	Switzerland	Western Europe	1	7.587	0.03411	1.39651	1.34951	0.94143	0.66557	0.41978	0.29678	2.51738
1	Iceland	Western Europe	2	7.561	0.04884	1.30232	1.40223	0.94784	0.62877	0.14145	0.43630	2.70201
2	Denmark	Western Europe	3	7.527	0.03328	1.32548	1.36058	0.87464	0.64938	0.48357	0.34139	2.49204
3	Norway	Western Europe	4	7.522	0.03880	1.45900	1.33095	0.88521	0.66973	0.36503	0.34699	2.46531
4	Canada	North America	5	7.427	0.03553	1.32629	1.32261	0.90563	0.63297	0.32957	0.45811	2.45176
...	...	...	...	...	...	...	...	...	...	...	...	...
153	Rwanda	Sub-Saharan Africa	154	3.465	0.03464	0.22208	0.77370	0.42864	0.59201	0.55191	0.22628	0.67042
154	Benin	Sub-Saharan Africa	155	3.340	0.03656	0.28665	0.35386	0.31910	0.48450	0.08010	0.18260	1.63328
155	Syria	Middle East and Northern Africa	156	3.006	0.05015	0.66320	0.47489	0.72193	0.15684	0.18906	0.47179	0.32858
156	Burundi	Sub-Saharan Africa	157	2.905	0.08658	0.01530	0.41587	0.22396	0.11850	0.10062	0.19727	1.83302
157	Togo	Sub-Saharan Africa	158	2.839	0.06727	0.20868	0.13995	0.28443	0.36453	0.10731	0.16681	1.56726

158 rows × 12 columns

In [ ]: