```
Practice Datasets\\world_happiness.csv"'
PS C:\Users\Ritu> & "C:/Program Files/Python312/python.exe" c:/Users/Ritu/Desktop/Untitled-29.py
--------------------------------

---Main Menu---
1.Load Dataset
2.Explore data
3.handing missing value
4.Performing DataFrame Operation
5.Data Visulization
6.Subplots
7.Exit

Enter your choice:1
Enter CSV file path: "C:\Users\Ritu\Desktop\DATA_ANAYLIST\Practice Datasets-20250813T151928Z-1-001 (1)\Practice Datasets\world_happiness.csv"


File loaded successfully...
--------------------------------

---Main Menu---
1.Load Dataset
2.Explore data
3.handing missing value
4.Performing DataFrame Operation
5.Data Visulization
6.Subplots
7.Exit

Enter your choice:2
--------------------------------
1.Display first 5 row
2.Display last 5 row
3.Display columns name
4.Display data type
5.Display basic information
6.Go Back
Enter your choice:1
   OverallRank       Country  Score  ...  Freedom to make life choices  Generosity  Perceptions of corruption
```

```
   OverallRank       Country  Score  ...  Freedom to make life choices  Generosity  Perceptions of corruption
0          145   Afghanistan  3.632  ...                         0.085       0.191                      0.036
1          112       Albania  4.586  ...                         0.419       0.149                      0.032
2           84       Algeria  5.295  ...                         0.077       0.055                      0.135
3          142        Angola  3.795  ...                         0.000       0.079                      0.061
4           29     Argentina  6.388  ...                         0.570       0.062                      0.054

[5 rows x 9 columns]
--------------------------------
1.Display first 5 row
2.Display last 5 row
3.Display columns name
4.Display data type
5.Display basic information
6.Go Back
Enter your choice:2
     OverallRank     Country  Score  ...  Freedom to make life choices  Generosity  Perceptions of corruption
151          102   Venezuela  4.806  ...                         0.133       0.056                      0.052
152           95     Vietnam  5.103  ...                         0.618       0.177                      0.079
153          152       Yemen  3.355  ...                         0.244       0.083                      0.064
154          125      Zambia  4.377  ...                         0.503       0.221                      0.082
155          144    Zimbabwe  3.692  ...                         0.406       0.132                      0.099

[5 rows x 9 columns]
--------------------------------
1.Display first 5 row
2.Display last 5 row
3.Display columns name
4.Display data type
5.Display basic information
6.Go Back
Enter your choice:3
Index(['OverallRank', 'Country', 'Score', 'GDP per capita', 'Social support',
       'Healthy life expectancy', 'Freedom to make life choices', 'Generosity',
       'Perceptions of corruption'],
      dtype='object')
--------------------------------
1.Display first 5 row
2.Display last 5 row
```

```
1.Display first 5 row
2.Display last 5 row
3.Display columns name
4.Display data type
5.Display basic information
6.Go Back
Enter your choice:4
OverallRank                      int64
Country                         object
Score                          float64
GDP per capita                 float64
Social support                 float64
Healthy life expectancy        float64
Freedom to make life choices   float64
Generosity                     float64
Perceptions of corruption      float64
dtype: object
--------------------------------
1.Display first 5 row
2.Display last 5 row
3.Display columns name
4.Display data type
5.Display basic information
6.Go Back
Enter your choice:5
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 156 entries, 0 to 155
Data columns (total 9 columns):
 #   Column                        Non-Null Count  Dtype
---  ------                        --------------  -----
 0   OverallRank                   156 non-null    int64
 1   Country                       156 non-null    object
 2   Score                         156 non-null    float64
 3   GDP per capita                156 non-null    float64
 4   Social support                156 non-null    float64
 5   Healthy life expectancy       156 non-null    float64
 6   Freedom to make life choices  156 non-null    float64
 7   Generosity                    156 non-null    float64
 8   Perceptions of corruption     155 non-null    float64
```

```
 8   Perceptions of corruption     155 non-null    float64
dtypes: float64(7), int64(1), object(1)
memory usage: 11.1+ KB
None
--------------------------------
1.Display first 5 row
2.Display last 5 row
3.Display columns name
4.Display data type
5.Display basic information
6.Go Back
Enter your choice:6
--------------------------------

---Main Menu---
1.Load Dataset
2.Explore data
3.handing missing value
4.Performing DataFrame Operation
5.Data Visulization
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7.Exit

Enter your choice:3
--------------------------------

1.Display Rows with missing value
2.Fill missing value with mean
3.Check Duplicated value
4.Drop column
5.Replace missing value with specific value
6.Go back

Enter your choice:1
OverallRank                    0
Country                        0
Score                          0
GDP per capita                 0
Social support                 0
```

```
Social support                0
Healthy life expectancy       0
Freedom to make life choices  0
Generosity                    0
Perceptions of corruption     1
dtype: int64
--------------------------------

1.Display Rows with missing value
2.Fill missing value with mean
3.Check Duplicated value
4.Drop column
5.Replace missing value with specific value
6.Go back

Enter your choice:2
OverallRank                   0
Country                       0
Score                         0
GDP per capita                0
Social support                0
Healthy life expectancy       0
Freedom to make life choices  0
Generosity                    0
Perceptions of corruption     0
dtype: int64
--------------------------------

1.Display Rows with missing value
2.Fill missing value with mean
3.Check Duplicated value
4.Drop column
5.Replace missing value with specific value
6.Go back

Enter your choice:3
0
--------------------------------
```

```
Enter your choice:3
0
--------------------------------

1.Display Rows with missing value
2.Fill missing value with mean
3.Check Duplicated value
4.Drop column
5.Replace missing value with specific value
6.Go back

Enter your choice:4
Index(['OverallRank', 'Country', 'Score', 'GDP per capita', 'Social support',
       'Healthy life expectancy', 'Freedom to make life choices', 'Generosity',
       'Perceptions of corruption'],
      dtype='object')
Enter columns name:Social support

Columns Social support Dropped successfully...

Index(['OverallRank', 'Country', 'Score', 'GDP per capita',
       'Healthy life expectancy', 'Freedom to make life choices', 'Generosity',
       'Perceptions of corruption'],
      dtype='object')
--------------------------------

1.Display Rows with missing value
2.Fill missing value with mean
3.Check Duplicated value
4.Drop column
5.Replace missing value with specific value
6.Go back

Enter your choice:6
--------------------------------

---Main Menu---
1.Load Dataset
2.Explore data
```

```
2.Explore data
3.handing missing value
4.Performing DataFrame Operation
5.Data Visulization
6.Subplots
7.Exit

Enter your choice:4
--------------------------------
1.Convert DataFrame to Numpy Array
2.Indexing and Slicing
3.mathmetical operation
4.Statistical_Operations
5.Search data
6.sort data
7.filter data
8.aggrigation_function
9.Go back
Enter your choice:1
--------------------------------
Index(['OverallRank', 'Country', 'Score', 'GDP per capita',
       'Healthy life expectancy', 'Freedom to make life choices', 'Generosity',
       'Perceptions of corruption'],
      dtype='object')
Enter column names to convert to NumPy (comma-separated, or leave blank for all): Generosity,GDP per capita,OverallRank
[[1.91e-01 3.32e-01 1.45e+02]
 [1.49e-01 9.16e-01 1.12e+02]
 [5.50e-02 9.79e-01 8.40e+01]
 [7.90e-02 7.30e-01 1.42e+02]]

Data successfully converted into a NumPy array.
--------------------------------
1.Convert DataFrame to Numpy Array
2.Indexing and Slicing
3.mathmetical operation
4.Statistical_Operations
5.Search data
6.sort data
7.filter data
```

```
8.aggrigation_function
9.Go back
Enter your choice:2
--------------------------------
Enter index:1
Element : [  0.149   0.916 112.   ]
Enter start index:2
Enter end index:3
Slice: [[5.50e-02 9.79e-01 8.40e+01]]
--------------------------------
1.Convert DataFrame to Numpy Array
2.Indexing and Slicing
3.mathmetical operation
4.Statistical_Operations
5.Search data
6.sort data
7.filter data
8.aggrigation_function
9.Go back
Enter your choice:3
--------------------------------

Addition : [[  3.191   3.332 148.   ]
 [  3.149   3.916 115.   ]
 [  3.055   3.979  87.   ]
 [  3.079   3.73  145.   ]
 [  3.062   4.073  32.   ]]

Subtract : [[ -1.809  -1.668 143.   ]
 [ -1.851  -1.084 110.   ]
 [ -1.945  -1.021  82.   ]
 [ -1.921  -1.27  140.   ]
 [ -1.938  -0.927  27.   ]]

multiplication : [[3.820e-01 6.640e-01 2.900e+02]
 [2.980e-01 1.832e+00 2.240e+02]
 [1.100e-01 1.958e+00 1.680e+02]
 [1.580e-01 1.460e+00 2.840e+02]
 [1.240e-01 2.146e+00 5.800e+01]]
```

```
divide : [[9.550e-02 1.660e-01 7.250e+01]
 [7.450e-02 4.580e-01 5.600e+01]
 [2.750e-02 4.895e-01 4.200e+01]
 [3.950e-02 3.650e-01 7.100e+01]
 [3.100e-02 5.365e-01 1.450e+01]]
--------------------------------
1.Convert DataFrame to Numpy Array
2.Indexing and Slicing
3.mathmetical operation
4.Statistical_Operations
5.Search data
6.sort data
7.filter data
8.aggrigation_function
9.Go back
Enter your choice:4
--------------------------------
1.Mean
2.Medain
3.Mode
4.Correlation
5.Standard Deviation
6.Variance
7.Exit
Enter your choice1
OverallRank                    78.500000
Score                           5.375917
GDP per capita                  0.891449
Healthy life expectancy         0.597346
Freedom to make life choices    0.454506
Generosity                      0.180942
Perceptions of corruption       0.112000
dtype: float64
--------------------------------
1.Mean
2.Medain
3.Mode
4.Correlation
```

```
5.Standard Deviation
6.Variance
7.Exit
Enter your choice2
OverallRank                    78.5000
Score                           5.3780
GDP per capita                  0.9495
Healthy life expectancy         0.6440
Freedom to make life choices    0.4870
Generosity                      0.1740
Perceptions of corruption       0.0820
dtype: float64
--------------------------------
1.Mean
2.Medain
3.Mode
4.Correlation
5.Standard Deviation
6.Variance
7.Exit
Enter your choice3
Enter Categorical columns:Score
0    5.358
1    5.483
Name: Score, dtype: float64
--------------------------------
1.Mean
2.Medain
3.Mode
4.Correlation
5.Standard Deviation
6.Variance
7.Exit
Enter your choice4
                        OverallRank     Score  GDP per capita  ...  Freedom to make life choices  Generosity  Perceptions of corruption
OverallRank                1.000000 -0.991749       -0.804466  ...                     -0.530786   -0.102489                -0.369107
Score                     -0.991749  1.000000        0.800976  ...                      0.544280    0.134519                 0.403234
GDP per capita            -0.804466  0.800976        1.000000  ...                      0.321775   -0.014150                 0.301054
Healthy life expectancy   -0.777837  0.775122        0.844273  ...                      0.349144    0.018685                 0.310313
```

```
Healthy life expectancy         -0.777837  0.775122        0.844273  ...                  0.349144    0.018685                0.310313
Freedom to make life choices    -0.530786  0.544280        0.321775  ...                  1.000000    0.297106                0.460788
Generosity                      -0.102489  0.134519       -0.014150  ...                  0.297106    1.000000                0.360370
Perceptions of corruption       -0.369107  0.403234        0.301054  ...                  0.460788    0.360370                1.000000

[7 rows x 7 columns]
--------------------------------
1.Mean
2.Medain
3.Mode
4.Correlation
5.Standard Deviation
6.Variance
7.Exit
Enter your choice5
OverallRank                    45.177428
Score                           1.119506
GDP per capita                  0.391921
Healthy life expectancy         0.247579
Freedom to make life choices    0.162424
Generosity                      0.098460
Perceptions of corruption       0.096180
dtype: float64
--------------------------------
1.Mean
2.Medain
3.Mode
4.Correlation
5.Standard Deviation
6.Variance
7.Exit
Enter your choice6
OverallRank                    2041.000000
Score                             1.253293
GDP per capita                    0.153602
Healthy life expectancy           0.061295
Freedom to make life choices      0.026382
Generosity                        0.009694
Perceptions of corruption         0.009251
```

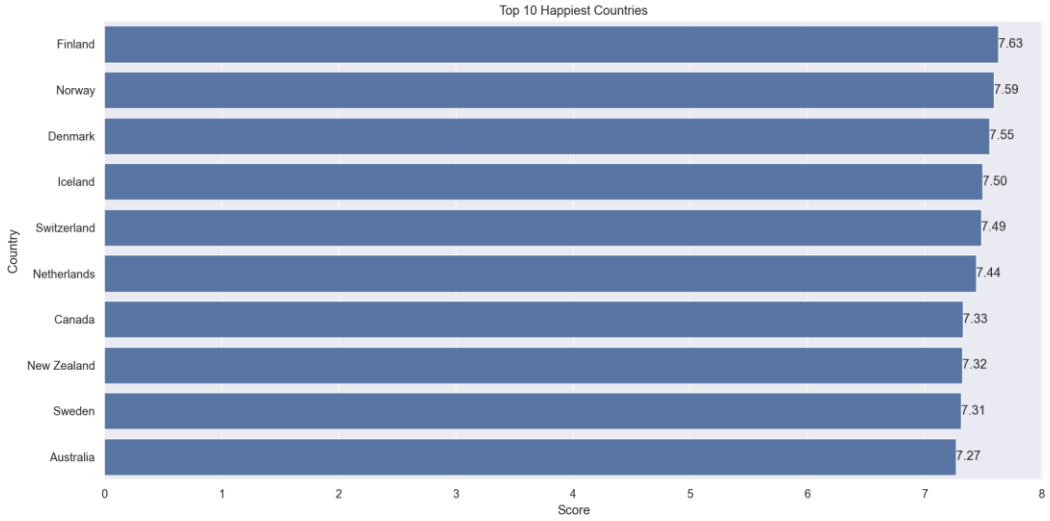
```
1.Mean
2.Medain
3.Mode
4.Correlation
5.Standard Deviation
6.Variance
7.Exit
Enter your choice7
--------------------------------
1.Convert DataFrame to Numpy Array
2.Indexing and Slicing
3.mathmetical operation
4.Statistical_Operations
5.Search data
6.sort data
7.filter data
8.aggrigation_function
9.Go back
Enter your choice:5
--------------------------------
Enter value to search: 85
Value found: [85.]
--------------------------------
1.Convert DataFrame to Numpy Array
2.Indexing and Slicing
3.mathmetical operation
4.Statistical_Operations
5.Search data
6.sort data
7.filter data
8.aggrigation_function
9.Go back
Enter your choice:8
--------------------------------

--- Grouping Operations ---
1. Country-wise Average Happiness Score
2. Country-wise Score Statistics (Mean / Max / Min)
3. Country-wise Average GDP
```

```
3. Country-wise Average GDP
4. Country vs Happiness Score (Pivot Table)
5. Country-wise GDP vs Happiness Score
6. Exit
Enter choice: 1
Country
 Afghanistan     3.632
 Albania         4.586
 Algeria         5.295
 Angola          3.795
 Argentina       6.388
                 ...
 Yemen           3.355
 Zambia          4.377
 Zimbabwe        3.692
  Switzerland    7.487
   Nepal         4.880
Name: Score, Length: 156, dtype: float64
--------------------------------

--- Grouping Operations ---
1. Country-wise Average Happiness Score
2. Country-wise Score Statistics (Mean / Max / Min)
3. Country-wise Average GDP
4. Country vs Happiness Score (Pivot Table)
5. Country-wise GDP vs Happiness Score
6. Exit
Enter choice: 2
                mean    max    min
Country
 Afghanistan   3.632  3.632  3.632
 Albania       4.586  4.586  4.586
 Algeria       5.295  5.295  5.295
 Angola        3.795  3.795  3.795
 Argentina     6.388  6.388  6.388
...              ...    ...    ...
 Yemen         3.355  3.355  3.355
 Zambia        4.377  4.377  4.377
 Zimbabwe      3.692  3.692  3.692
  Switzerland  7.487  7.487  7.487
   Nepal       4.880  4.880  4.880

[156 rows x 3 columns]
--------------------------------

--- Grouping Operations ---
1. Country-wise Average Happiness Score
2. Country-wise Score Statistics (Mean / Max / Min)
3. Country-wise Average GDP
4. Country vs Happiness Score (Pivot Table)
5. Country-wise GDP vs Happiness Score
6. Exit
Enter choice: 3
Country
 Afghanistan     0.332
 Albania         0.916
 Algeria         0.979
 Angola          0.730
 Argentina       1.073
                 ...
 Yemen           0.442
 Zambia          0.562
 Zimbabwe        0.357
  Switzerland    1.420
   Nepal         0.425
Name: GDP per capita, Length: 156, dtype: float64
--------------------------------

--- Grouping Operations ---
1. Country-wise Average Happiness Score
2. Country-wise Score Statistics (Mean / Max / Min)
3. Country-wise Average GDP
4. Country vs Happiness Score (Pivot Table)
5. Country-wise GDP vs Happiness Score
6. Exit
Enter choice: 4
Country       Afghanistan   Albania   Algeria   Angola   Argentina   Armenia ...   Vietnam   Yemen   Zambia   Zimbabwe   Switzerland     Ne
pal
```

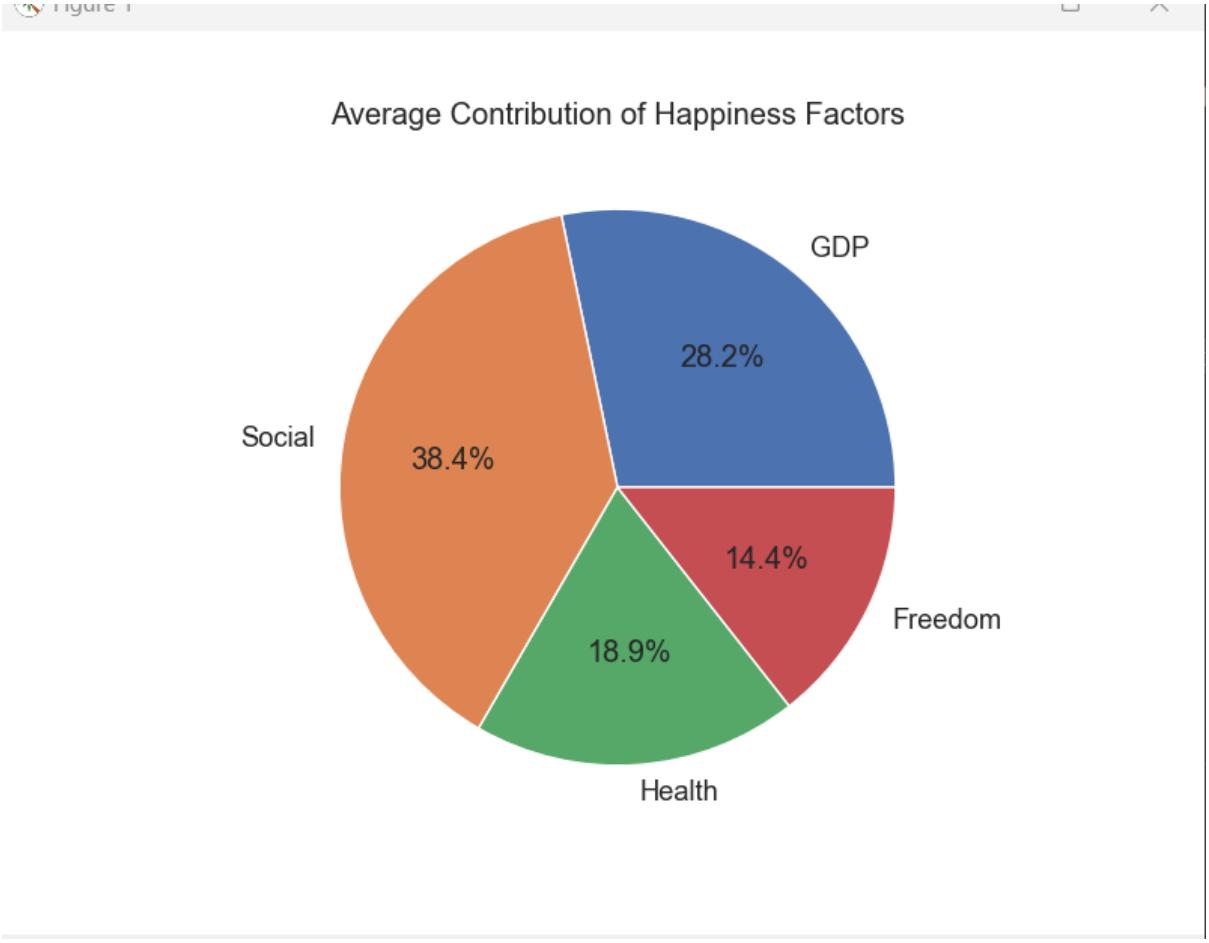
```
OverallRank                                                    ...
1                  NaN       NaN       NaN       NaN       NaN       NaN  ...       NaN       NaN       NaN       NaN       NaN
NaN
2                  NaN       NaN       NaN       NaN       NaN       NaN  ...       NaN       NaN       NaN       NaN       NaN
NaN
3                  NaN       NaN       NaN       NaN       NaN       NaN  ...       NaN       NaN       NaN       NaN       NaN
NaN
4                  NaN       NaN       NaN       NaN       NaN       NaN  ...       NaN       NaN       NaN       NaN       NaN
NaN
5                  NaN       NaN       NaN       NaN       NaN       NaN  ...       NaN       NaN       NaN       NaN     7.487
NaN
...                ...       ...       ...       ...       ...       ...  ...       ...       ...       ...       ...       ...
...
152                NaN       NaN       NaN       NaN       NaN       NaN  ...       NaN     3.355       NaN       NaN       NaN
NaN
153                NaN       NaN       NaN       NaN       NaN       NaN  ...       NaN       NaN       NaN       NaN       NaN
NaN
154                NaN       NaN       NaN       NaN       NaN       NaN  ...       NaN       NaN       NaN       NaN       NaN
NaN
155                NaN       NaN       NaN       NaN       NaN       NaN  ...       NaN       NaN       NaN       NaN       NaN
NaN
156                NaN       NaN       NaN       NaN       NaN       NaN  ...       NaN       NaN       NaN       NaN       NaN
NaN

[156 rows x 156 columns]
--------------------------------

--- Grouping Operations ---
1. Country-wise Average Happiness Score
2. Country-wise Score Statistics (Mean / Max / Min)
3. Country-wise Average GDP
4. Country vs Happiness Score (Pivot Table)
5. Country-wise GDP vs Happiness Score
6. Exit
Enter choice: 5
             Score  GDP per capita
Country
 Afghanistan   3.632           0.332
```

```
Country
 Afghanistan   3.632           0.332
 Albania       4.586           0.916
 Algeria       5.295           0.979
 Angola        3.795           0.730
 Argentina     6.388           1.073
...              ...             ...
 Yemen         3.355           0.442
 Zambia        4.377           0.562
 Zimbabwe      3.692           0.357
  Switzerland  7.487           1.420
   Nepal       4.880           0.425

[156 rows x 2 columns]
--------------------------------

--- Grouping Operations ---
1. Country-wise Average Happiness Score
2. Country-wise Score Statistics (Mean / Max / Min)
3. Country-wise Average GDP
4. Country vs Happiness Score (Pivot Table)
5. Country-wise GDP vs Happiness Score
6. Exit
Enter choice: 6
Exit successful.
--------------------------------
1.Convert DataFrame to Numpy Array
2.Indexing and Slicing
3.mathmetical operation
4.Statistical_Operations
5.Search data
6.sort data
7.filter data
8.aggrigation_function
9.Go back
Enter your choice:9
--------------------------------

---Main Menu---
```

```
---Main Menu---
1.Load Dataset
2.Explore data
3.handing missing value
4.Performing DataFrame Operation
5.Data Visulization
6.Subplots
7.Exit

Enter your choice:5
--------------------------------
1.Bar plot
2.Pie Plot
3.Line plot
4.Scatter plot
5.Histogram plot
6.Heat Map
7.Box Plot
8.Go back
Enter your choice:1
--------------------------------
```




```
--------------------------------
1.Bar plot
2.Pie Plot
3.Line plot
4.Scatter plot
5.Histogram plot
6.Heat Map
7.Box Plot
8.Go back
Enter your choice:2
--------------------------------
```

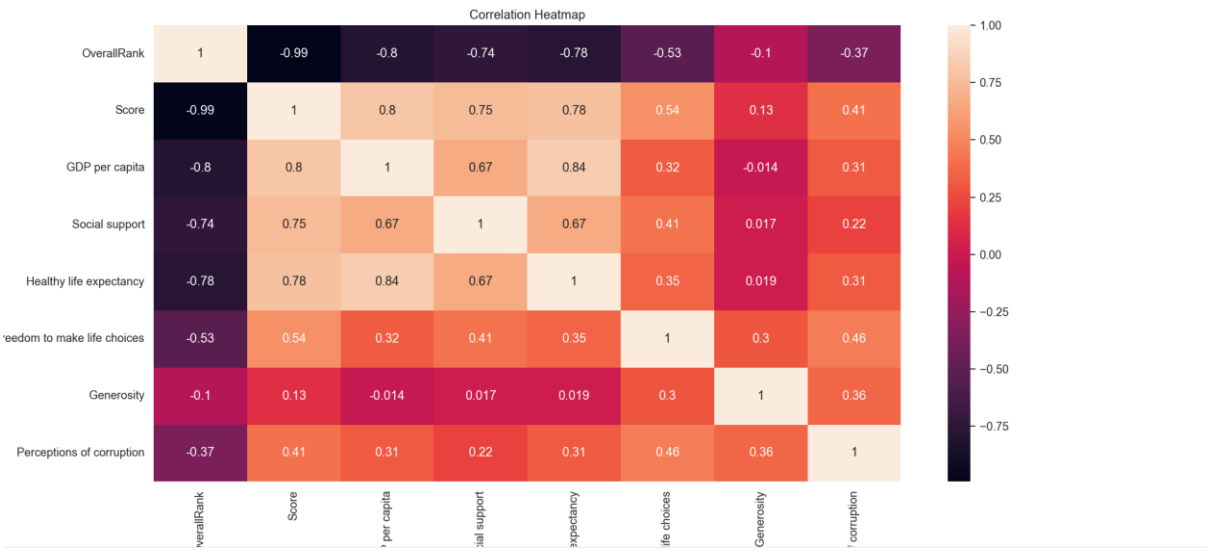



```
---------------------------------
1.Bar plot
2.Pie Plot
3.Line plot
4.Scatter plot
5.Histogram plot
6.Heat Map
7.Box Plot
8.Go back
Enter your choice:3
```


```
1.Bar plot
2.Pie Plot
3.Line plot
4.Scatter plot
5.Histogram plot
6.Heat Map
7.Box Plot
8.Go back
Enter your choice:4
```

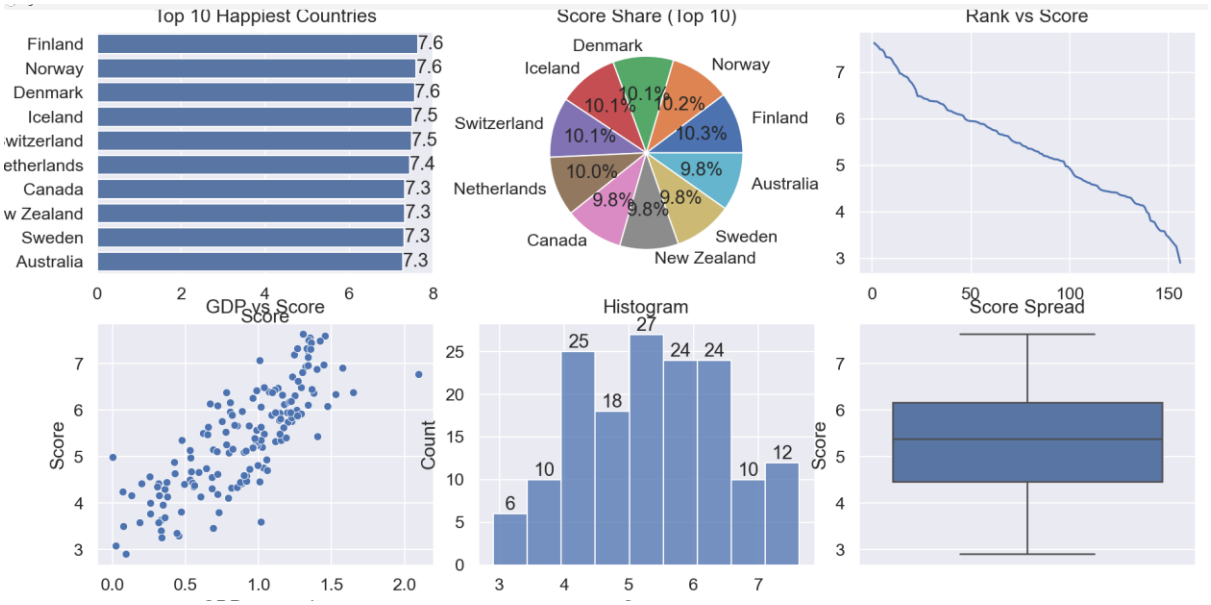

```
1.Bar plot
2.Pie Plot
3.Line plot
4.Scatter plot
5.Histogram plot
6.Heat Map
7.Box Plot
8.Go back
Enter your choice:5
```


```
1.Bar plot
2.Pie Plot
3.Line plot
4.Scatter plot
5.Histogram plot
6.Heat Map
7.Box Plot
8.Go back
Enter your choice:6
```



```
------------------------------
1.Bar plot
2.Pie Plot
3.Line plot
4.Scatter plot
5.Histogram plot
6.Heat Map
7.Box Plot
8.Go back
Enter your choice:7
```


```
---Main Menu---
1.Load Dataset
2.Explore data
3.handing missing value
4.Performing DataFrame Operation
5.Data Visulization
6.Subplots
7.Exit

Enter your choice:6
```




```
1.Load Dataset
2.Explore data
3.handing missing value
4.Performing DataFrame Operation
5.Data Visulization
6.Subplots
7.Exit

Enter your choice:7
Exiting the program. Goodbye!
PS C:\Users\Ritu>
```