

Univariate analysis

Finding countries with the highest and lowest life expectancy

```
In [11]: import pandas as pd
```

```
In [12]: lifeExpectancy = pd.read_csv('lifeExpectancyAtBirth.csv', sep=',')
```

```
In [13]: lifeExpectancy.head()
```

```
Out[13]:
```

	Location	Period	Indicator	Dim1	First Tooltip
0	Afghanistan	2019	Life expectancy at birth (years)	Both sexes	63.21
1	Afghanistan	2019	Life expectancy at birth (years)	Male	63.29
2	Afghanistan	2019	Life expectancy at birth (years)	Female	63.16
3	Afghanistan	2015	Life expectancy at birth (years)	Both sexes	61.65
4	Afghanistan	2015	Life expectancy at birth (years)	Male	61.04

```
In [14]: filteredData = lifeExpectancy[(lifeExpectancy['Period'] == 2019) & (lifeExpectancy['Dim1
```

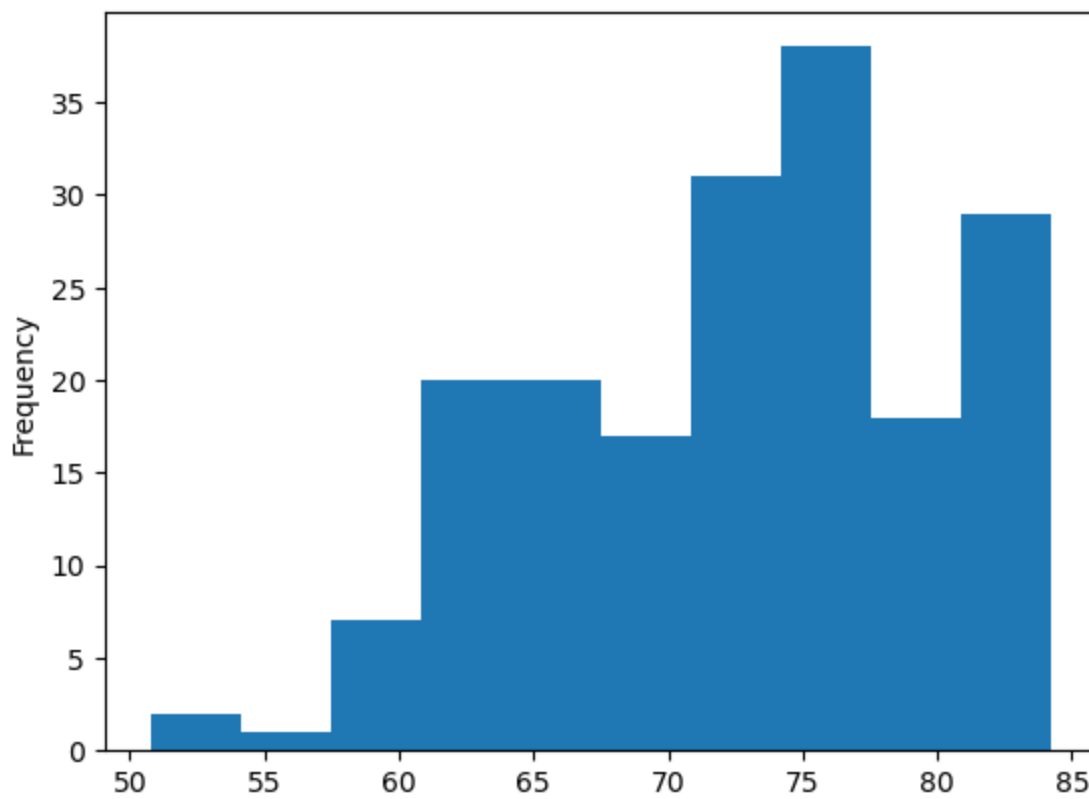
```
In [16]: column = 'First Tooltip'
data = filteredData[column]
```

```
In [17]: print("Minimum: " + str(data.min()))
print("Maximum: " + str(data.max()))
print("Mean: " + str(data.mean()))
print('Median: ' + str(data.median()))
print('Standard deviation: ' + str(data.std()))
```

```
Minimum: 50.75
Maximum: 84.26
Mean: 72.54049180327873
Median: 73.74
Standard deviation: 7.129956404370866
```

```
In [18]: data.plot(kind='hist', bins = 10)
```

```
Out[18]: <AxesSubplot:ylabel='Frequency'>
```



```
In [19]: data.sort_values()
```

```
Out[19]: 1117    50.75
373      53.10
1801     56.47
661      57.73
1333     58.14
...
1837     83.22
1753     83.22
1573     83.30
1897     83.45
997      84.26
Name: First Tooltip, Length: 183, dtype: float64
```

```
In [20]: filteredData.sort_values(column)
```

```
Out[20]:
```

	Location	Period	Indicator	Dim1	First Tooltip
1117	Lesotho	2019	Life expectancy at birth (years)	Both sexes	50.75
373	Central African Republic	2019	Life expectancy at birth (years)	Both sexes	53.10
1801	Somalia	2019	Life expectancy at birth (years)	Both sexes	56.47
661	Eswatini	2019	Life expectancy at birth (years)	Both sexes	57.73
1333	Mozambique	2019	Life expectancy at birth (years)	Both sexes	58.14
...
1837	Spain	2019	Life expectancy at birth (years)	Both sexes	83.22
1753	Singapore	2019	Life expectancy at birth (years)	Both sexes	83.22
1573	Republic of Korea	2019	Life expectancy at birth (years)	Both sexes	83.30
1897	Switzerland	2019	Life expectancy at birth (years)	Both sexes	83.45
997	Japan	2019	Life expectancy at birth (years)	Both sexes	84.26

183 rows × 5 columns

Countries with the highest life expectancy:

```
In [27]: filteredData.sort_values(column)[:5]
```

Out[27]:

	Location	Period	Indicator	Dim1	First Tooltip
1117	Lesotho	2019	Life expectancy at birth (years)	Both sexes	50.75
373	Central African Republic	2019	Life expectancy at birth (years)	Both sexes	53.10
1801	Somalia	2019	Life expectancy at birth (years)	Both sexes	56.47
661	Eswatini	2019	Life expectancy at birth (years)	Both sexes	57.73
1333	Mozambique	2019	Life expectancy at birth (years)	Both sexes	58.14

Countries with the lowest life expectancy:

```
In [29]: filteredData.sort_values(column)[-5:]
```

Out[29]:

	Location	Period	Indicator	Dim1	First Tooltip
1837	Spain	2019	Life expectancy at birth (years)	Both sexes	83.22
1753	Singapore	2019	Life expectancy at birth (years)	Both sexes	83.22
1573	Republic of Korea	2019	Life expectancy at birth (years)	Both sexes	83.30
1897	Switzerland	2019	Life expectancy at birth (years)	Both sexes	83.45
997	Japan	2019	Life expectancy at birth (years)	Both sexes	84.26