

```
In [39]: import numpy as nd
import pandas as pd

olympic_data=pd.read_csv("https://raw.githubusercontent.com/svkarthik86/Advance-Python-N
olympic_data
```

Out[39]:

	Available_City	Edition_year	Sport_name	Discipline	Athlete	NOC	Gender	Event	Event_ger
0	Athens	1896	Aquatics	Swimming	HAJOS, Alfred	HUN	Men	100m freestyle	
1	Athens	1896	Aquatics	Swimming	HERSCHMANN, Otto	AUT	Men	100m freestyle	
2	Athens	1896	Aquatics	Swimming	DRIVAS, Dimitrios	GRE	Men	100m freestyle for sailors	
3	Athens	1896	Aquatics	Swimming	MALOKINIS, Ioannis	GRE	Men	100m freestyle for sailors	
4	Athens	1896	Aquatics	Swimming	CHASAPIS, Spiridon	NaN	Men	100m freestyle for sailors	
...	
29211	Beijing	2008	Wrestling	Wrestling Gre-R	ENGLISH, Mirko	GER	Men	84 - 96kg	
29212	Beijing	2008	Wrestling	Wrestling Gre-R	MIZGAITIS, Mindaugas	LTU	Men	96 - 120kg	
29213	Beijing	2008	Wrestling	Wrestling Gre-R	PATRIKEEV, Yuri	ARM	Men	96 - 120kg	
29214	Beijing	2008	Wrestling	Wrestling Gre-R	LOPEZ, Mijain	CUB	Men	96 - 120kg	
29215	Beijing	2008	Wrestling	Wrestling Gre-R	BAROEV, Khasan	RUS	Men	96 - 120kg	

29216 rows × 10 columns

```
In [11]: olympic_data.head(5)
```

Out[11]:

	Athens	1896	Aquatics	Swimming	MALOKINIS, Ioannis	GRE	Men	100m freestyle for sailors	M	Unnamed: 9
0	Athens	1896	Aquatics	Swimming	CHASAPIS, Spiridon	NaN	Men	100m freestyle for sailors	M	Silver
1	Athens	1896	NaN	Swimming	CHOROPHAS, Efstathios	GRE	Men	1200m freestyle	M	Bronze
2	Athens	1896	Aquatics	NaN	HAJOS, Alfred	HUN	Men	1200m freestyle	M	Gold
3	Athens	1896	Aquatics	Swimming	ANDREOU, Joannis	GRE	Men	1200m freestyle	M	Silver
4	NaN	1896	Aquatics	Swimming	CHOROPHAS, Efstathios	GRE	Men	400m freestyle	M	Bronze

```
In [14]: olympic_data.columns
```

```
Out[14]: Index(['Athens', '1896', 'Aquatics', 'Swimming', 'MALOKINIS, Ioannis', 'GRE',  
          'Men', '100m freestyle for sailors', 'M', 'Unnamed: 9'],  
          dtype='object')
```

```
In [19]: olympic_data.shape
```

```
Out[19]: (29212, 10)
```

```
In [66]: olympic.index
```

```
Out[66]: Int64Index([ 13, 231, 737, 1191, 2022, 2996, 4236, 5095, 5806,  
                    6427, 7302, 8121, 9009, 9924, 10823, 11865, 12902, 14069,  
                    15374, 16794, 18284, 19859, 21598, 23521, 25539, 27552],  
                    dtype='int64')
```

```
In [67]: olympic.size
```

```
Out[67]: 260
```

```
In [68]: olympic.shape
```

```
Out[68]: (26, 10)
```

```
In [73]: olympic_data.groupby("NOC")["Edition_year"].agg([min,max,])
```

```
Out[73]:
```

	min	max
NOC		
AFG	2008	2008
AHO	1988	1988
ALG	1984	2008
ANZ	1908	1912
ARG	1924	2008
...
VIE	2000	2008
YUG	1924	2000
ZAM	1984	1996
ZIM	1980	2008
ZZX	1896	1904

138 rows × 2 columns

```
In [78]: olympic_data[(olympic_data.Medal=='Silver')&(olympic_data.Edition_year=='2008')].sort_va
```

```
Out[78]:
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Available_City	Edition_year	Sport_name	Discipline	Athlete	NOC	Gender	Event	Event_gender	Medal
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In [82]: import pandas as pd  
olympic_data=pd.read_csv("https://raw.githubusercontent.com/svkarthik86/Advance-Python-N  
olympic_data")
```

Out [82]:

	Available_City	Edition_year	Sport_name	Discipline	Athlete	NOC	Gender	Event	Event_ger
0	Athens	1896	Aquatics	Swimming	HAJOS, Alfred	HUN	Men	100m freestyle	
1	Athens	1896	Aquatics	Swimming	HERSCHMANN, Otto	AUT	Men	100m freestyle	
2	Athens	1896	Aquatics	Swimming	DRIVAS, Dimitrios	GRE	Men	100m freestyle for sailors	
3	Athens	1896	Aquatics	Swimming	MALOKINIS, Ioannis	GRE	Men	100m freestyle for sailors	
4	Athens	1896	Aquatics	Swimming	CHASAPIS, Spiridon	NaN	Men	100m freestyle for sailors	
...	
29211	Beijing	2008	Wrestling	Wrestling Gre-R	ENGLISH, Mirko	GER	Men	84 - 96kg	
29212	Beijing	2008	Wrestling	Wrestling Gre-R	MIZGAITIS, Mindaugas	LTU	Men	96 - 120kg	
29213	Beijing	2008	Wrestling	Wrestling Gre-R	PATRIKEEV, Yuri	ARM	Men	96 - 120kg	
29214	Beijing	2008	Wrestling	Wrestling Gre-R	LOPEZ, Mijain	CUB	Men	96 - 120kg	
29215	Beijing	2008	Wrestling	Wrestling Gre-R	BAROEV, Khasan	RUS	Men	96 - 120kg	

29216 rows × 10 columns

In [85]:

olympic_data.dropna()

Out[85]:

	Available_City	Edition_year	Sport_name	Discipline	Athlete	NOC	Gender	Event	Event_ger
0	Athens	1896	Aquatics	Swimming	HAJOS, Alfred	HUN	Men	100m freestyle	
1	Athens	1896	Aquatics	Swimming	HERSCHMANN, Otto	AUT	Men	100m freestyle	
2	Athens	1896	Aquatics	Swimming	DRIVAS, Dimitrios	GRE	Men	100m freestyle for sailors	
7	Athens	1896	Aquatics	Swimming	ANDREOU, Joannis	GRE	Men	1200m freestyle	
9	Athens	1896	Aquatics	Swimming	NEUMANN, Paul	AUT	Men	400m freestyle	
...	
29211	Beijing	2008	Wrestling	Wrestling Gre-R	ENGLISH, Mirko	GER	Men	84 - 96kg	
29212	Beijing	2008	Wrestling	Wrestling Gre-R	MIZGAITIS, Mindaugas	LTU	Men	96 - 120kg	
29213	Beijing	2008	Wrestling	Wrestling Gre-R	PATRIKEEV, Yuri	ARM	Men	96 - 120kg	
29214	Beijing	2008	Wrestling	Wrestling Gre-R	LOPEZ, Mijain	CUB	Men	96 - 120kg	
29215	Beijing	2008	Wrestling	Wrestling Gre-R	BAROEV, Khasan	RUS	Men	96 - 120kg	

29205 rows × 10 columns

In [89]:

olympic_data[(olympic_data.Edition_year>=1984)&(olympic_data.Edition_year<=2008)]["NOC"]

Out[89]:

USA 1837
AUS 762
GER 691
Name: NOC, dtype: int64

In [90]:

olympic_data[(olympic_data.Medal=='Gold')]["Athlete"].value_counts()

Out[90]:

PHELPS, Michael 14
LATYNINA, Larisa 9
SPITZ, Mark 9
NURMI, Paavo 9
LEWIS, Carl 9
..
LISENKO-SHEVTSOVA, Lyudmila 1
THOMPSON, Donald James 1
HALBERG, Murray Gordon 1
YOUNG, Earl Verdelle 1
LOPEZ, Mijain 1
Name: Athlete, Length: 7840, dtype: int64

In [91]:

olympic_d1=olympic_data[(olympic_data.Medal=='Gold')&(olympic_data.Gender=='Men')&(olympic_d1

Out[91]:

	Available_City	Edition_year	Sport_name	Discipline	Athlete	NOC	Gender	Event	Event_gender
13	Athens	1896	Athletics	Athletics	BURKE, Thomas	USA	Men	100m	M
231	Paris	1900	Athletics	Athletics	JARVIS, Francis	USA	Men	100m	M
737	St Louis	1904	Athletics	Athletics	HAHN, Archie	USA	Men	100m	M
1191	London	1908	Athletics	Athletics	WALKER, Reginald	RSA	Men	100m	M
2022	Stockholm	1912	Athletics	Athletics	CRAIG, Ralph	USA	Men	100m	M
2996	Antwerp	1920	Athletics	Athletics	PADDOCK, Charles	USA	Men	100m	M
4236	Paris	1924	Athletics	Athletics	ABRAHAMAS, Harold	GBR	Men	100m	M
5095	Amsterdam	1928	Athletics	Athletics	WILLIAMS, Percy	CAN	Men	100m	M
5806	Los Angeles	1932	Athletics	Athletics	TOLAN, Eddie	USA	Men	100m	M
6427	Berlin	1936	Athletics	Athletics	OWENS, Jesse	USA	Men	100m	M
7302	London	1948	Athletics	Athletics	DILLARD, Harrison	USA	Men	100m	M
8121	Helsinki	1952	Athletics	Athletics	REMIGINO, Lindy	USA	Men	100m	M
9009	Melbourne / Stockholm	1956	Athletics	Athletics	MORROW, Robert Joseph	USA	Men	100m	M
9924	Rome	1960	Athletics	Athletics	HARY, Armin	EUA	Men	100m	M
10823	Tokyo	1964	Athletics	Athletics	HAYES, Robert	USA	Men	100m	M
11865	Mexico	1968	Athletics	Athletics	HINES, James Ray	USA	Men	100m	M
12902	Munich	1972	Athletics	Athletics	BORZOV, Valery	URS	Men	100m	M
14069	Montreal	1976	Athletics	Athletics	CRAWFORD, Hasely	TRI	Men	100m	M
15374	Moscow	1980	Athletics	Athletics	WELLS, Allan	GBR	Men	100m	M
16794	Los Angeles	1984	Athletics	Athletics	LEWIS, Carl	USA	Men	100m	M
18284	Seoul	1988	Athletics	Athletics	LEWIS, Carl	USA	Men	100m	M
19859	Barcelona	1992	Athletics	Athletics	CHRISTIE, Linford	GBR	Men	100m	M
21598	Atlanta	1996	Athletics	Athletics	BAILEY, Donovan	CAN	Men	100m	M
23521	Sydney	2000	Athletics	Athletics	GREENE, Maurice	USA	Men	100m	M
25539	Athens	2004	Athletics	Athletics	GATLIN, Justin	USA	Men	100m	M
27552	Beijing	2008	Athletics	Athletics	BOLT, Usain	JAM	Men	100m	M

```
In [93]: olympic_data[(olympic_data.Edition_year>=1984)&(olympic_data.Edition_year<=2008)][ "NOC"]

Out[93]: USA      1837
AUS       762
GER       691
Name: NOC, dtype: int64

In [94]: olympic_data.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 29216 entries, 0 to 29215
Data columns (total 10 columns):
#   Column          Non-Null Count  Dtype
---  -
0   Available_City  29214 non-null  object
1   Edition_year    29216 non-null  int64
2   Sport_name     29213 non-null  object
3   Discipline     29215 non-null  object
4   Athlete        29215 non-null  object
5   NOC            29215 non-null  object
6   Gender         29214 non-null  object
7   Event          29216 non-null  object
8   Event_gender   29216 non-null  object
9   Medal          29215 non-null  object
dtypes: int64(1), object(9)
memory usage: 2.2+ MB
```

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In [ ]:
```