```python
In [1]: import pandas as pd
        olympic_data=pd.read_csv("https://raw.githubusercontent.com/svkarthik86/Advance-Python-Numpy/main/olympics.csv",skiprows=4)
```

```python
In [2]: olympic_data.index.values
```
```
Out[2]: array([    0,     1,     2, ..., 29213, 29214, 29215], dtype=int64)
```

```python
In [3]: olympic_data.columns.values
```
```
Out[3]: array(['City', 'Edition', 'Sport', 'Discipline', 'Athlete', 'NOC',
        'Gender', 'Event', 'Event_gender', 'Medal'], dtype=object)
```

```python
In [4]: olympic_data.index.hasnans
```
```
Out[4]: False
```

```python
In [5]: olympic_data.columns.hasnans
```
```
Out[5]: False
```

```python
In [6]: olympic_data.index.has_duplicates
```
```
Out[6]: False
```

```python
In [7]: olympic_data.columns.has_duplicates
```
```
Out[7]: False
```

```python
In [8]: olympic_data.columns.nbytes
```
```
Out[8]: 80
```

```python
In [9]: olympic_data.index.nbytes
```
```
Out[9]: 128
```

```python
In [10]: olympic_data.query("(Medal=='Gold')and(Gender=='Men')and(Event=='singles')and(Discipline=='Badminton')").sort_values(by=['Athlete'])
```

Out[10]:

	City	Edition	Sport	Discipline	Athlete	NOC	Gender	Event	Event_gender	Medal
20045	Barcelona	1992	Badminton	Badminton	BUDI KUSUMA, Alan	INA	Men	singles	M	Gold
25734	Athens	2004	Badminton	Badminton	HIDAYAT, Taufik	INA	Men	singles	M	Gold
21787	Atlanta	1996	Badminton	Badminton	HOYER-LARSEN, Poul Erik	DEN	Men	singles	M	Gold
23717	Sydney	2000	Badminton	Badminton	JI, Xinpeng	CHN	Men	singles	M	Gold
27741	Beijing	2008	Badminton	Badminton	LIN, Dan	CHN	Men	singles	M	Gold

```python
In [11]: olympic_data.query("Athlete.str.contains('OWENS, Jesse')").Event
```
```
Out[11]: 6427            100m
         6439            200m
         6456     4x100m relay
         6523       long jump
         Name: Event, dtype: object
```

```python
In [12]: olympic_data.query("(Medal=='Gold')and(Event=='100m')and(Discipline=='Athletics')and(Gender=='Men')")
```

Out[12]:

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

```python
In [13]: olympic_data.query("(Medal=='Gold')and(Event=='100m')and(Discipline=='Athletics')and(Gender=='Men')")
```

Out[13]:

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

```python
In [14]: data_1984_2008=olympic_data.set_index(['Edition']).loc[1984:2009]
         data_1984_2008.NOC.value_counts()[:3]
```
```
Out[14]: USA    1837
         AUS     762
         GER     691
         Name: NOC, dtype: int64
```

```python
In [15]: olympic_data.query("(Medal=='Gold')and(Gender=='Men')and(Event=='singles')and(Discipline=='Badminton')").sort_values(by=['Athlete']).NOC.value_counts()
```
```
Out[15]: INA    2
         CHN    2
         DEN    1
         Name: NOC, dtype: int64
```

```python
In [16]: olympic_data.query("(Medal=='Gold')and(Event=='100m')and(Discipline=='Athletics')and(Gender=='Men')").sort_values(['Edition'],ascending=False)
```

Out[16]:

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

```python
In [ ]:
```