

In [1]: `import pandas as pd`

In [2]: `df=pd.read_csv(r"C:\Users\Chinenye Claire\Desktop\Hamoye Internship\Africa Food Production.csv")`

In [3]: `df.head()`

Out[3]:

	Country	Item	Year	Value
0	Algeria	Wheat and products	2004	2731
1	Algeria	Wheat and products	2005	2415
2	Algeria	Wheat and products	2006	2688
3	Algeria	Wheat and products	2007	2319
4	Algeria	Wheat and products	2008	1111

In [4]: `df1=pd.read_csv(r"C:\Users\Chinenye Claire\Desktop\Hamoye Internship\Africa Food Production.csv")`

In [5]: `df1.head()`

Out[5]:

	Country	Year	Value
0	Algeria	2004	2987
1	Algeria	2005	2958
2	Algeria	2006	3047
3	Algeria	2007	3041
4	Algeria	2008	3048

In [6]: `df.isnull().sum()`

Out[6]: Country 0
Item 0
Year 0
Value 0
dtype: int64

In [7]: `df1.isnull().sum()`

Out[7]: Country 0
Year 0
Value 0
dtype: int64

```
In [8]: #Which country produced the highest amount of oats in 2010?
options = ['Oats']
rslt_df = df[(df['Year'] == 2010) &
             df['Item'].isin(options)]

print('\nResult dataframe :\n',
      rslt_df)
```

Result dataframe :

	Country	Item	Year	Value
46	Algeria	Oats	2010	88
6406	Ethiopia	Oats	2010	48
7746	Ghana	Oats	2010	0
9286	Kenya	Oats	2010	3
10026	Lesotho	Oats	2010	0
13186	Morocco	Oats	2010	37
17816	South Africa	Oats	2010	34
20056	Tunisia	Oats	2010	2
22516	Zimbabwe	Oats	2010	1

```
In [9]: #What three countries have produced the highest total quantity of rice from 2000
df2=df.query("Item == 'Rice (Milled Equivalent)'")
df2.nlargest(15, 'Value')
```

Out[9]:

	Country	Item	Year	Value
5674	Egypt	Rice (Milled Equivalent)	2008	4838
5673	Egypt	Rice (Milled Equivalent)	2007	4587
5672	Egypt	Rice (Milled Equivalent)	2006	4506
5670	Egypt	Rice (Milled Equivalent)	2004	4237
5671	Egypt	Rice (Milled Equivalent)	2005	4086
5678	Egypt	Rice (Milled Equivalent)	2012	3943
5679	Egypt	Rice (Milled Equivalent)	2013	3818
5677	Egypt	Rice (Milled Equivalent)	2011	3785
5675	Egypt	Rice (Milled Equivalent)	2009	3682
15398	Nigeria	Rice (Milled Equivalent)	2012	3224
10656	Madagascar	Rice (Milled Equivalent)	2010	3160
15399	Nigeria	Rice (Milled Equivalent)	2013	3135
15397	Nigeria	Rice (Milled Equivalent)	2011	3046
10658	Madagascar	Rice (Milled Equivalent)	2012	3035
10655	Madagascar	Rice (Milled Equivalent)	2009	3028

```
In [10]: #Which three countries had the lowest food supply between 2004 and 2006 respec  
df3=df1[(df1['Year'] <= 2006)]  
df3.nsmallest(15, 'Value')
```

Out[10]:

	Country	Year	Value
432	Zambia	2006	1838
430	Zambia	2004	1866
431	Zambia	2005	1873
130	Ethiopia	2004	1882
132	Ethiopia	2006	1967
320	Rwanda	2004	1969
131	Ethiopia	2005	1978
220	Madagascar	2004	1980
70	Central African Republic	2004	1989
82	Chad	2006	2022
190	Kenya	2004	2022
350	Sierra Leone	2004	2024
441	Zimbabwe	2005	2025
71	Central African Republic	2005	2026
80	Chad	2004	2026