In [4]:

```
import numpy as np
import pandas as pd

ipl18 = pd.DataFrame({'Team': ['SRH', 'CSK', 'KKR', 'RR', 'MI', 'RCB', 'KXIP', 'DD'],
                      'Matches': [14, 14, 14, 14, 14, 14, 14, 14],
                      'Won': [9, 9, 8, 7, 6, 6, 6, 5],
                      'Lost': [5, 5, 6, 7, 8, 8, 8, 9],
                      'Tied': [0, 0, 0, 0, 0, 0, 0, 0],
                      'N/R': [0, 0, 0, 0, 0, 0, 0, 0],
                      'Points': [18, 18, 16, 14, 12, 12, 12, 10],
                      'NRR': [0.284, 0.253, -0.070, -0.250, 0.317, 0.129, -0.502, -0.222
                      'For': [2230, 2488, 2363, 2130, 2380, 2322, 2210, 2297],
                      'Against': [2193, 2433, 2425, 2141, 2282, 2383, 2259, 2304]},
                      index = range(1,9)
                    )

ipl18

ipl17 = pd.DataFrame({'Team': ['MI', 'RPS', 'SRH', 'KKR', 'KXIP', 'DD', 'GL', 'RCB'],
                      'Matches': [14, 14, 14, 14, 14, 14, 14, 14],
                      'Won': [10, 9, 8, 8, 7, 6, 4, 3],
                      'Lost': [4, 5, 5, 6, 7, 8, 10, 10],
                      'Tied': [0, 0, 0, 0, 0, 0, 0, 0],
                      'N/R': [0, 0, 1, 0, 0, 0, 0, 1],
                      'Points': [20, 18, 17, 16, 14, 12, 8, 7],
                      'NRR': [0.784, 0.176, 0.469, 0.641, 0.123, -0.512, -0.412, -1.299]
                      'For': [2407, 2180, 2221, 2329, 2207, 2219, 2406, 1845],
                      'Against': [2242, 2165, 2118, 2300, 2229, 2255, 2472, 2033]},
                      index = range(1,9)
                    )

ipl17

"""Question-1: Suppose in 'ipl18', you want to filter out the teams that have an NRR greate
and for which the 'For' score exceeds the 'Against' score, i.e. both the conditions should
Which teams will be left after you perform the above filtration ?

a) CSK, MI b) SRH,CSK, MI c) SRH,CSK, RCB d) SRK,CSK, MI,RCB
"""

#Solution of Question 1
ipl18[(ipl18['NRR'] > 0) & (ipl18['For'] > ipl18['Against'])]
```

Out[4]:

| | Team | Matches | Won | Lost | Tied | N/R | Points | NRR | For | Against |
|---|---|---|---|---|---|---|---|---|---|---|
| **1** | SRH | 14 | 9 | 5 | 0 | 0 | 18 | 0.284 | 2230 | 2193 |
| **2** | CSK | 14 | 9 | 5 | 0 | 0 | 18 | 0.253 | 2488 | 2433 |
| **5** | MI | 14 | 6 | 8 | 0 | 0 | 12 | 0.317 | 2380 | 2282 |

In [ ]:

```
Answer = b) SRH, CSK, MI
```

In [1]:
```
import numpy as np
import pandas as pd

ipl18 = pd.DataFrame({'Team': ['SRH', 'CSK', 'KKR', 'RR', 'MI', 'RCB', 'KXIP', 'DD'],
                          'Matches': [14, 14, 14, 14, 14, 14, 14, 14],
                          'Won': [9, 9, 8, 7, 6, 6, 6, 5],
                          'Lost': [5, 5, 6, 7, 8, 8, 8, 9],
                          'Tied': [0, 0, 0, 0, 0, 0, 0, 0],
                          'N/R': [0, 0, 0, 0, 0, 0, 0, 0],
                          'Points': [18, 18, 16, 14, 12, 12, 12, 10],
                          'NRR': [0.284, 0.253, -0.070, -0.250, 0.317, 0.129, -0.502, -0.222],
                          'For': [2230, 2488, 2363, 2130, 2380, 2322, 2210, 2297],
                          'Against': [2193, 2433, 2425, 2141, 2282, 2383, 2259, 2304]},
                          index = range(1,9)
                      )

ipl18
ipl17 = pd.DataFrame({'Team': ['MI', 'RPS', 'SRH', 'KKR', 'KXIP', 'DD', 'GL', 'RCB'],
                          'Matches': [14, 14, 14, 14, 14, 14, 14, 14],
                          'Won': [10, 9, 8, 8, 7, 6, 4, 3],
                          'Lost': [4, 5, 5, 6, 7, 8, 10, 10],
                          'Tied': [0, 0, 0, 0, 0, 0, 0, 0],
                          'N/R': [0, 0, 1, 0, 0, 0, 0, 1],
                          'Points': [20, 18, 17, 16, 14, 12, 8, 7],
                          'NRR': [0.784, 0.176, 0.469, 0.641, 0.123, -0.512, -0.412, -1.299],
                          'For': [2407, 2180, 2221, 2329, 2207, 2219, 2406, 1845],
                          'Against': [2242, 2165, 2118, 2300, 2229, 2255, 2472, 2033]},
                          index = range(1,9)
                      )

ipl17

"""
Q2. If all the stats are taken for both ‘ipl17’ and ‘ipl18’,
which team with its total points greater than 25 will have the highest win percentage
"""
#Solution of Question 2
combined_table = pd.concat([ipl17,ipl18]).groupby('Team').sum().sort_values('Points', ascending=False)
df= combined_table.loc[(combined_table['Points'] > 25)]
print([(df['Won'] / df['Matches'] * 100)])
```

```
[Team
SRH     60.714286
KKR     57.142857
MI      57.142857
KXIP    46.428571
dtype: float64]
```

In [ ]:
```
Answer = SRH
```

In [9]:

```
import pandas as pd
reviews = pd.read_csv("winemag.csv")

"""Question 1
Look at an overview of your data.
"""
#Solution
reviews.head()
```

Out[9]:

| | Unnamed: 0 | country | description | designation | points | price | province | region_1 | region_2 |
|---|---|---|---|---|---|---|---|---|---|
| **0** | 0 | Italy | Aromas include tropical fruit, broom, brimston... | Vulkà Bianco | 87 | NaN | Sicily & Sardinia | Etna | NaN |
| **1** | 1 | Portugal | This is ripe and fruity, a wine that is smooth... | Avidagos | 87 | 15.0 | Douro | NaN | NaN |
| **2** | 2 | US | Tart and snappy, the flavors of lime flesh and... | NaN | 87 | 14.0 | Oregon | Willamette Valley | Willamette Valley |
| **3** | 3 | US | Pineapple rind, lemon pith and orange blossom ... | Reserve Late Harvest | 87 | 13.0 | Michigan | Lake Michigan Shore | NaN |
| **4** | 4 | US | Much like the regular bottling from 2012, this... | Vintner's Reserve Wild Child Block | 87 | 65.0 | Oregon | Willamette Valley | Willamette Valley |

In [13]:

```
"""Question 2
Select the `description` column from `reviews` and assign the result to the variable `desc`
"""
#Solution
desc = reviews['description']
desc
```

```
0         Aromas include tropical fruit, broom, brimston...
1         This is ripe and fruity, a wine that is smooth...
2         Tart and snappy, the flavors of lime flesh and...
3         Pineapple rind, lemon pith and orange blossom ...
4         Much like the regular bottling from 2012, this...
                                ...
129966    Notes of honeysuckle and cantaloupe sweeten th...
129967    Citation is given as much as a decade of bottl...
129968    Well-drained gravel soil gives this wine its c...
129969    A dry style of Pinot Gris, this is crisp with ...
129970    Big, rich and off-dry, this is powered by inte...
Name: description, Length: 129971, dtype: object
```

In [16]:

```
"""Question 3
Select the first value from the description column of `reviews`, assigning it to variable `
"""
#Solution
first_description = reviews.loc[0,'description']
first_description
```

Out[16]:

```
"Aromas include tropical fruit, broom, brimstone and dried herb. The palate
isn't overly expressive, offering unripened apple, citrus and dried sage alo
ngside brisk acidity."
```

In [19]:

```
"""Question 4
Select the first row of data (the first record) from `reviews`, assigning it to the variabl
"""
#Solution
first_row = reviews.iloc[0]
first_row
```

Out[19]:

```
Unnamed: 0                                                          0
country                                                         Italy
description             Aromas include tropical fruit, broom, brimston...
designation                                                Vulkà Bianco
points                                                             87
price                                                             NaN
province                                              Sicily & Sardinia
region_1                                                          Etna
region_2                                                          NaN
taster_name                                                Kerin O’Keefe
taster_twitter_handle                                      @kerinokeefe
title                                 Nicosia 2013 Vulkà Bianco  (Etna)
variety                                                    White Blend
winery                                                         Nicosia
Name: 0, dtype: object
```

In [22]:

```
"""Question 5
Select the first 10 values from the `description` column in `reviews`, assigning the result
"""
#Solution
first_descriptions = reviews['description']
first_descriptions.head(10)
```

Out[22]:

```
0    Aromas include tropical fruit, broom, brimston...
1    This is ripe and fruity, a wine that is smooth...
2    Tart and snappy, the flavors of lime flesh and...
3    Pineapple rind, lemon pith and orange blossom ...
4    Much like the regular bottling from 2012, this...
5    Blackberry and raspberry aromas show a typical...
6    Here's a bright, informal red that opens with ...
7    This dry and restrained wine offers spice in p...
8    Savory dried thyme notes accent sunnier flavor...
9    This has great depth of flavor with its fresh ...
Name: description, dtype: object
```

In [23]:

```
"""Question 6
Select the records with index labels `1`, `2`, `3`, `5`, and `8`, assigning the result to t
"""
#Solution
sample_reviews = reviews.iloc[[1,2,3,5,8]]
sample_reviews
```

Out[23]:

| | Unnamed: 0 | country | description | designation | points | price | province | region_1 | reg |
|---|---|---|---|---|---|---|---|---|---|
| **1** | 1 | Portugal | This is ripe and fruity, a wine that is smooth... | Avidagos | 87 | 15.0 | Douro | NaN | |
| **2** | 2 | US | Tart and snappy, the flavors of lime flesh and... | NaN | 87 | 14.0 | Oregon | Willamette Valley | Will |
| **3** | 3 | US | Pineapple rind, lemon pith and orange blossom ... | Reserve Late Harvest | 87 | 13.0 | Michigan | Lake Michigan Shore | |
| **5** | 5 | Spain | Blackberry and raspberry aromas show a typical... | Ars In Vitro | 87 | 15.0 | Northern Spain | Navarra | |
| **8** | 8 | Germany | Savory dried thyme notes accent sunnier flavor... | Shine | 87 | 12.0 | Rheinhessen | NaN | |

In [25]:

```
"""Question 7
Create a variable `df` containing the `country`, `province`, `region_1`, and `region_2`
columns of the records with the index labels `0`, `1`, `10`, and `100`.
"""
#Solution
df = reviews.loc[[0,1,10,100],['country','province','region_1','region_2']]
df
```

Out[25]:

| | country | province | region_1 | region_2 |
|---|---|---|---|---|
| **0** | Italy | Sicily & Sardinia | Etna | NaN |
| **1** | Portugal | Douro | NaN | NaN |
| **10** | US | California | Napa Valley | Napa |
| **100** | US | New York | Finger Lakes | Finger Lakes |

In [28]:

```
"""Question 8
 Create a variable `df` containing the `country` and `variety` columns of the first 100 rec
"""
#Solution
df = reviews.iloc[0:100][['country','variety']]
df
```

Out[28]:

| | country | variety |
|---|---|---|
| **0** | Italy | White Blend |
| **1** | Portugal | Portuguese Red |
| **2** | US | Pinot Gris |
| **3** | US | Riesling |
| **4** | US | Pinot Noir |
| **...** | ... | ... |
| **95** | France | Gamay |
| **96** | France | Gamay |
| **97** | US | Riesling |
| **98** | Italy | Sangiovese |
| **99** | US | Bordeaux-style Red Blend |

100 rows × 2 columns

In [30]:

```
"""Question 9
Create a DataFrame `italian_wines` containing reviews of wines made in `Italy`.
"""
#Solution
italian_wines = reviews.loc[reviews.country=='Italy']
italian_wines
```

Out[30]:

| | Unnamed: 0 | country | description | designation | points | price | province | region_1 | re |
|---|---|---|---|---|---|---|---|---|---|
| **0** | 0 | Italy | Aromas include tropical fruit, broom, brimston... | Vulkà Bianco | 87 | NaN | Sicily & Sardinia | Etna | |
| **6** | 6 | Italy | Here's a bright, informal red that opens with ... | Belsito | 87 | 16.0 | Sicily & Sardinia | Vittoria | |
| **13** | 13 | Italy | This is dominated by oak and oak-driven aromas... | Rosso | 87 | NaN | Sicily & Sardinia | Etna | |
| **22** | 22 | Italy | Delicate aromas recall white flower and citrus... | Ficiligno | 87 | 19.0 | Sicily & Sardinia | Sicilia | |
| **24** | 24 | Italy | Aromas of prune, blackcurrant, toast and oak c... | Aynat | 87 | 35.0 | Sicily & Sardinia | Sicilia | |
| **...** | ... | ... | ... | ... | ... | ... | ... | ... | |
| **129929** | 129929 | Italy | This luminous sparkler has a sweet, fruit-forw... | NaN | 91 | 38.0 | Veneto | Prosecco Superiore di Cartizze | |
| **129943** | 129943 | Italy | A blend of Nero d'Avola and Syrah, this convey... | Adènzia | 90 | 29.0 | Sicily & Sardinia | Sicilia | |
| **129947** | 129947 | Italy | A blend of 65% Cabernet Sauvignon, 30% Merlot ... | Symposio | 90 | 20.0 | Sicily & Sardinia | Terre Siciliane | |

| | Unnamed: 0 | country | description | designation | points | price | province | region_1 | re |
|---|---|---|---|---|---|---|---|---|---|
| **129961** | 129961 | Italy | Intense aromas of wild cherry, baking spice, t... | NaN | 90 | 30.0 | Sicily & Sardinia | Sicilia | |
| **129962** | 129962 | Italy | Blackberry, cassis, grilled herb and toasted a... | Sàgana Tenuta San Giacomo | 90 | 40.0 | Sicily & Sardinia | Sicilia | |

19540 rows × 14 columns

In [ ]: