

```
In [2]: import numpy as np
import pandas as pd
```

Q1 - Look at an overview of data

```
In [3]: reviews = pd.read_csv(r"F:\stige projects\pandas stige\wine\winemag-data-130k-v2.csv",
print(reviews.head(10))
```

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

	designation	points	price	province	\
0	Vulkà Bianco	87	NaN	Sicily & Sardinia	
1	Avidagos	87	15.0	Douro	
2		87	14.0	Oregon	
3	Reserve Late Harvest	87	13.0	Michigan	
4	Vintner's Reserve Wild Child Block	87	65.0	Oregon	
5		87	15.0	Northern Spain	
6	Belsito	87	16.0	Sicily & Sardinia	
7		87	24.0	Alsace	
8	Shine	87	12.0	Rheinhessen	
9	Les Natures	87	27.0	Alsace	

	region_1	region_2	taster_name	\
0	Etna	NaN	Kerin O'Keefe	
1	NaN	NaN	Roger Voss	
2	Willamette Valley	Willamette Valley	Paul Gregutt	
3	Lake Michigan Shore		Alexander Peartree	
4	Willamette Valley	Willamette Valley	Paul Gregutt	
5	Navarra	NaN	Michael Schachner	
6	Vittoria	NaN	Kerin O'Keefe	
7	Alsace	NaN	Roger Voss	
8	NaN	NaN	Anna Lee C. Iijima	
9	Alsace	NaN	Roger Voss	

	taster_twitter_handle	title	\
0	@kerinokeefe	Nicosia 2013 Vulkà Bianco (Etna)	
1	@vossroger	Quinta dos Avidagos 2011 Avidagos Red (Douro)	
2	@paulgwine	Rainstorm 2013 Pinot Gris (Willamette Valley)	
3	NaN	St. Julian 2013 Reserve Late Harvest Riesling ...	
4	@paulgwine	Sweet Cheeks 2012 Vintner's Reserve Wild Child...	
5	@wineschach	Tandem 2011 Ars In Vitro Tempranillo-Merlot (N...	
6	@kerinokeefe	Terre di Giurfo 2013 Belsito Frappato (Vittoria)	
7	@vossroger	Trimbach 2012 Gewürztraminer (Alsace)	
8	NaN	Heinz Eifel 2013 Shine Gewürztraminer (Rheinhe...	
9	@vossroger	Jean-Baptiste Adam 2012 Les Natures Pinot Gris...	

	variety	winery
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0	White Blend	Nicosia
1	Portuguese Red	Quinta dos Avidagos
2	Pinot Gris	Rainstorm
3	Riesling	St. Julian
4	Pinot Noir	Sweet Cheeks
5	Tempranillo-Merlot	Tandem
6	Frappato	Terre di Giurfo
7	Gewürztraminer	Trimbach
8	Gewürztraminer	Heinz Eifel
9	Pinot Gris	Jean-Baptiste Adam

Q2 - Select the description column from reviews and assign the result to the variable desc .

```
In [4]: desc = reviews['description']
desc
```

```
Out[4]: 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
```

Q3 - Select the first value from the description column of reviews , assigning it to variable first_description .

```
In [5]: first_description = desc[0]
first_description
```

```
Out[5]: "Aromas include tropical fruit, broom, brimstone and dried herb. The palate isn't overly expressive, offering unripened apple, citrus and dried sage alongside brisk acidity."
```

Select the first row of data (the first record) from reviews , assigning it to the variable first_row

```
In [6]: first_row = reviews.loc[[0]]
first_row
```

	country	description	designation	points	price	province	region_1	region_2	taster_name	taster_tv
0	Italy	Aromas include tropical fruit, broom, brimston...	Vulkà Bianco	87	NaN	Sicily & Sardinia	Etna	NaN	Kerin O'Keefe	

Q5 - Select the first 10 values from the description column in reviews , assigning the result to variable first_descriptions

```
In [7]: first_descriptions = desc.head(10)
print(first_descriptions)
```

```
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
```

Q6 - Select the records with index labels 1 , 2 , 3 , 5 , and 8 , assigning the result to the variable sample_reviews

```
In [9]: sample_reviews = reviews.iloc[[1,3,5,8]]
print(sample_reviews)
```

	country	description	\
1	Portugal	This is ripe and fruity, a wine that is smooth...	
3	US	Pineapple rind, lemon pith and orange blossom ...	
5	Spain	Blackberry and raspberry aromas show a typical...	
8	Germany	Savory dried thyme notes accent sunnier flavor...	

	designation	points	price	province	region_1	\
1	Avidagos	87	15.0	Douro		NaN
3	Reserve Late Harvest	87	13.0	Michigan	Lake Michigan Shore	
5	Ars In Vitro	87	15.0	Northern Spain		Navarra
8	Shine	87	12.0	Rheinhessen		NaN

	region_2	taster_name	taster_twitter_handle	\
1	NaN	Roger Voss	@vossroger	
3	NaN	Alexander Peartree		NaN
5	NaN	Michael Schachner	@wineschach	
8	NaN	Anna Lee C. Iijima		NaN

	title	variety	\
1	Quinta dos Avidagos 2011 Avidagos Red (Douro)	Portuguese Red	
3	St. Julian 2013 Reserve Late Harvest Riesling ...	Riesling	
5	Tandem 2011 Ars In Vitro Tempranillo-Merlot (N...	Tempranillo-Merlot	
8	Heinz Eifel 2013 Shine Gewürztraminer (Rheinhe...	Gewürztraminer	

	winery
1	Quinta dos Avidagos
3	St. Julian
5	Tandem
8	Heinz Eifel

Q7 - 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 .

```
In [10]: df = reviews.loc[[0,1,10,100], ['country', 'province', 'region_1', 'region_2']]
df
```

Out[10]:

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

Q8 - Create a variable df containing the country and variety columns of the first 100 records.

```
In [11]: df = reviews.loc[0:99, ['country', 'variety']]
df
```

	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

Q9 - Create a DataFrame italian_wines containing reviews of wines made in Italy .

```
In [12]: italian_wines = reviews.loc[(reviews['country'] == "Italy")]
print(italian_wines)
```

	country	description \
0	Italy	Aromas include tropical fruit, broom, brimston...
6	Italy	Here's a bright, informal red that opens with ...
13	Italy	This is dominated by oak and oak-driven aromas...
22	Italy	Delicate aromas recall white flower and citrus...
24	Italy	Aromas of prune, blackcurrant, toast and oak c...
...
129929	Italy	This luminous sparkler has a sweet, fruit-forw...
129943	Italy	A blend of Nero d'Avola and Syrah, this convey...
129947	Italy	A blend of 65% Cabernet Sauvignon, 30% Merlot ...
129961	Italy	Intense aromas of wild cherry, baking spice, t...
129962	Italy	Blackberry, cassis, grilled herb and toasted a...

designation	points	price	province \
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0	Vulkà Bianco	87	NaN	Sicily & Sardinia
6	Belsito	87	16.0	Sicily & Sardinia
13	Rosso	87	NaN	Sicily & Sardinia
22	Ficiligno	87	19.0	Sicily & Sardinia
24	Aynat	87	35.0	Sicily & Sardinia
...
129929	NaN	91	38.0	Veneto
129943	Adènzia	90	29.0	Sicily & Sardinia
129947	Symposio	90	20.0	Sicily & Sardinia
129961	NaN	90	30.0	Sicily & Sardinia
129962	Sàgana Tenuta San Giacomo	90	40.0	Sicily & Sardinia

		region_1	region_2	taster_name	\
0		Etna	NaN	Kerin O'Keefe	
6		Vittoria	NaN	Kerin O'Keefe	
13		Etna	NaN	Kerin O'Keefe	
22		Sicilia	NaN	Kerin O'Keefe	
24		Sicilia	NaN	Kerin O'Keefe	
...	
129929	Prosecco Superiore di Cartizze		NaN		NaN
129943		Sicilia	NaN	Kerin O'Keefe	
129947	Terre Siciliane		NaN	Kerin O'Keefe	
129961		Sicilia	NaN	Kerin O'Keefe	
129962		Sicilia	NaN	Kerin O'Keefe	

		taster_twitter_handle	\
0		@kerinokeefe	
6		@kerinokeefe	
13		@kerinokeefe	
22		@kerinokeefe	
24		@kerinokeefe	
...		...	
129929		NaN	
129943		@kerinokeefe	
129947		@kerinokeefe	
129961		@kerinokeefe	
129962		@kerinokeefe	

		title	variety	\
0	Nicosia 2013	Vulkà Bianco (Etna)	White Blend	
6	Terre di Giurfo 2013	Belsito Frappato (Vittoria)	Frappato	
13	Masseria Setteporte 2012	Rosso (Etna)	Nerello Mascalese	
22	Baglio di Pianetto 2007	Ficiligno White (Sicilia)	White Blend	
24	Canicattì 2009	Aynat Nero d'Avola (Sicilia)	Nero d'Avola	
...	
129929	Col Vetoraz Spumanti NV	Prosecco Superiore di...	Prosecco	
129943	Baglio del Cristo di Campobello 2012	Adènzia R...	Red Blend	
129947	Feudo Principi di Butera 2012	Symposio Red (Te...	Red Blend	
129961	COS 2013	Frappato (Sicilia)	Frappato	
129962	Cusumano 2012	Sàgana Tenuta San Giacomo Nero d...	Nero d'Avola	

		winery
0		Nicosia
6		Terre di Giurfo
13		Masseria Setteporte
22		Baglio di Pianetto
24		Canicattì
...		...
129929		Col Vetoraz Spumanti
129943		Baglio del Cristo di Campobello

129947	Feudo Principi di Butera
129961	COS
129962	Cusumano

[19540 rows x 13 columns]