

```
In [63]: """
Techniques Used
- Boolean Indexing
- Pivot Table
"""

import numpy as np
import pandas as pd
```

```
In [64]: df = pd.read_csv('data/sales-funnel.csv')
```

In [65]: df

Out[65]:

	Account	Name	Rep	Manager	Product	Quantity	Price	Status
0	714466	Trantow-Barrows	Craig Booker	Debra Henley	CPU	1	30000	presented
1	714466	Trantow-Barrows	Craig Booker	Debra Henley	Software	1	10000	presented
2	714466	Trantow-Barrows	Craig Booker	Debra Henley	Maintenance	2	5000	pending
3	737550	Fritsch, Russel and Anderson	Craig Booker	Debra Henley	CPU	1	35000	declined
4	146832	Kiehn-Spinka	Daniel Hilton	Debra Henley	CPU	2	65000	won
5	218895	Kulas Inc	Daniel Hilton	Debra Henley	CPU	2	40000	pending
6	218895	Kulas Inc	Daniel Hilton	Debra Henley	Software	1	10000	presented
7	412290	Jerde-Hilpert	John Smith	Debra Henley	Maintenance	2	5000	pending
8	740150	Barton LLC	John Smith	Debra Henley	CPU	1	35000	declined
9	141962	Herman LLC	Cedric Moss	Fred Anderson	CPU	2	65000	won
10	163416	Purdy-Kunde	Cedric Moss	Fred Anderson	CPU	1	30000	presented
11	239344	Stokes LLC	Cedric Moss	Fred Anderson	Maintenance	1	5000	pending
12	239344	Stokes LLC	Cedric Moss	Fred Anderson	Software	1	10000	presented
13	307599	Kassulke, Ondricka and Metz	Wendy Yule	Fred Anderson	Maintenance	3	7000	won
14	688981	Keeling LLC	Wendy Yule	Fred Anderson	CPU	5	100000	won
15	729833	Koepp Ltd	Wendy Yule	Fred Anderson	CPU	2	65000	declined
16	729833	Koepp Ltd	Wendy Yule	Fred Anderson	Monitor	2	5000	presented

```
In [66]: # How many rows have a price greater than $8,000?
len(df[df['Price'] > 8000])
```

Out[66]: 12

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In [67]: # How many rows are pending AND have a price greater than $8,000?
len(df[(df['Status'] == 'pending') & (df['Price'] > 8000)])
```

Out[67]: 1

```
In [68]: # How many rows are pending OR have a price greater than $8,000?
len(df[(df['Status'] == 'pending') | (df['Price'] > 8000)])
```

Out[68]: 15

```
In [69]: # Create an amount column that's equal to price * quantity. What's the total
df['Total Amount'] = df['Quantity'] * df['Price']
df[df['Status'] == 'won']['Total Amount'].sum()
```

Out[69]: 781000

```
In [70]: # What's the total amount won within the CPU product category?
df[(df['Status'] == 'won') & (df['Product'] == 'CPU')]['Total Amount'].sum()
```

Out[70]: 760000

```
In [71]: # Create pivot table
df.pivot_table(['Total Amount', 'Quantity'], index=['Manager', 'Rep'], columns=['Status'], aggfunc='sum')
```

Out[71]:

		Total Amount				Quantity			
	Status	declined	pending	presented	won	declined	pending	presented	won
Manager	Rep								
Debra Henley	Craig Booker	35000	10000	20000	0	1	2	1	0
	Daniel Hilton	0	80000	10000	130000	0	2	1	2
	John Smith	35000	10000	0	0	1	2	0	0
Fred Anderson	Cedric Moss	0	5000	20000	130000	0	1	1	2
	Wendy Yule	130000	0	10000	260500	2	0	2	4

