

# Learning Pandas

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

```
In [2]: df=pd.DataFrame(data=np.array([[1,2,3], [4,5,6], [7,8,9]], dtype=int), c
columns=['A', 'B', 'C'])
df
```

```
Out[2]:
```

	A	B	C
0	1	2	3
1	4	5	6
2	7	8	9

## Creation DataFrames

```
In [4]: df2=pd.DataFrame(data=np.array([[10,11,12], [13,14,15], [16,17,18], [19,
20,21]]),index=['P','Q','R','S'], columns=['A','B','C'])
df2
```

```
Out[4]:
```

	A	B	C
P	10	11	12
Q	13	14	15
R	16	17	18
S	19	20	21

```
In [6]: df.columns
```

```
Out[6]: Index(['A', 'B', 'C'], dtype='object')
```

```
In [7]: df2.columns
```

```
Out[7]: Index(['A', 'B', 'C'], dtype='object')
```

```
In [8]: df.index
```

```
Out[8]: RangeIndex(start=0, stop=3, step=1)
```

```
In [9]: df2.index
```

```
Out[9]: Index(['P', 'Q', 'R', 'S'], dtype='object')
```

## Sclicing the databaets

```
In [10]: df.iloc[0]
```

```
Out[10]: A    1
         B    2
         C    3
         Name: 0, dtype: int32
```

```
In [13]: df2.loc['R']
```

```
Out[13]: A    16
         B    17
         C    18
         Name: R, dtype: int32
```

```
In [14]: df3=df2.iloc[0:3,0:2]
         df3
```

Out[14]:

	A	B
P	10	11
Q	13	14
R	16	17

```
In [16]: df4=df2.iloc[0:3,0:-2]
         df4
```

Out[16]:

	A
P	10
Q	13
R	16

```
In [22]: dfh=pd.read_csv('https://s3-eu-west-1.amazonaws.com/shanebucket/download
s/uk-500.csv')
         dfh
```

Out[22]:

	first_name	last_name	company_name	address	city	county	postal
0	Aleshia	Tomkiewicz	Alan D Rosenburg Cpa Pc	14 Taylor St	St. Stephens Ward	Kent	CT2 7PP
1	Evan	Zigomalas	Cap Gemini America	5 Binney St	Abbey Ward	Buckinghamshire	HP11 2AX
2	France	Andrade	Elliott, John W Esq	8 Moor Place	East Southbourne and Tuckton W	Bournemouth	BH6 3BE
3	Ulysses	Mcwalters	Mcmahan, Ben L	505 Exeter Rd	Hawerby cum Beesby	Lincolnshire	DN36 5RP
4	Tyisha	Veness	Champagne Room	5396 Forth Street	Greets Green and Lyng Ward	West Midlands	B70 9DT
5	Eric	Rampy	Thompson, Michael C Esq	9472 Lind St	Desborough	Northamptonshire	NN14 2GH

6	Marg	Grasmick	Wrangle Hill Auto Auct & Slvg	7457 Cowl St #70	Bargate Ward	Southampton	SO14 3TY
7	Laquita	Hisaw	In Communications Inc	20 Gloucester PI #96	Chirton Ward	Tyne & Wear	NE29 7AD
8	Lura	Manzella	Bizerba Usa Inc	929 Augustine St	Staple Hill Ward	South Gloucestershire	BS16 4LL
9	Yvette	Klapec	Max Video	45 Bradfield St #166	Parwich	Derbyshire	DE6 1QN
10	Fernanda	Writer	K & R Associates Inc	620 Northampton St	Wilmington	Kent	DA2 7PP
11	Charlesetta	Erm	Cain, John M Esq	5 Hygeia St	Loundsley Green Ward	Derbyshire	S40 4LY
12	Corrinne	Jaret	Sound Vision Corp	2150 Morley St	Dee Ward	Dumfries and Galloway	DG8 7DE
13	Niesha	Bruch	Rowley/hansell Petetin	24 Bolton St	Broxburn, Uphall and Winchburg	West Lothian	EH52 5TL
14	Rueben	Gastellum	Industrial Engineering Assocs	4 Forrest St	Weston- Super-Mare	North Somerset	BS23 3HG
15	Michell	Throssell	Weiss Spirt & Guyer	89 Noon St	Carbrooke	Norfolk	IP25 6JQ
16	Edgar	Kanne	Crowan, Kenneth W Esq	99 Guthrie St	New Milton	Hampshire	BH25 5DF
17	Dewitt	Julio	Rittenhouse Motor Co	7 Richmond St	Parkham	Devon	EX39 5DJ
18	Charisse	Spinello	Modern Plastics Corp	9165 Primrose St	Darnall Ward	Yorkshire, South	S4 7WN
19	Mee	Lapinski	Galloway Electric Co Inc	9 Pengwern St	Marldon	Devon	TQ3 1SA
20	Peter	Gutierres	Niagara Custombuilt Mfg Co	4410 Tarlton St	Prestatyn Community	Denbighshire	LL19 9EG
21	Octavio	Salvadore	Practical Periphrls	6949 Bourne St	Lye and Stourbridge North Ward	West Midlands	DY5 2QP
22	Martha	Teplica	Curtin, Patricia M Esq	148 Rembrandt St	Warlingham	Surrey	CR6 9SW
23	Tamesha	Veigel	Wilhelm, James E Jr	2200 Nelson St #58	Newport	Isle of Wight	PO30 5AL
24	Tess	Sitra	Smart Signs	61 Rossett St	Chichester	West Sussex	PO19 1RH
25	Leonard	Kufner	Arctic Star Distributing Inc	41 Canning St	Steornabagh a Deas Ward	Western Isles	HS1 2PZ
26	Svetlana	Tauras	Lensbower, Gregory L Esq	8289 Cadogan St	South Ward	North Eart Lincolnshire	DN33 1AU
			Portal Metal				TR7

27	Pok	Molaison	Products	211 Hobart St	Newquay	Cornwall	1LS
28	Augustine	Growcock	Lynema, Cliff Cpa	114 Falkland St #8845	Brimpton	Berkshire	RG7 4RF
29	Karma	Quarto	J C S Machinery	1 Birkett St	Shard End Ward	West Midlands	B33 0NH
...	...	...	...	...	...	...	...
470	Tony	Diazdeleon	Dilling Harris Inc	529 Llanrwst St	Southam	Gloucestershire	GL52 8TW
471	Val	Villot	Horizon Air Magazine	1980 Tynemouth St	Almond Ward	West Lothian	EH52 5PY
472	Mel	Picciuto	Avante Limited	8598 Rumney Rd	Hylands Ward	Essex	RM11 1QL
473	Isabella	Piatkowski	Miller, William E Iii	9283 Ruth St #81	Dormers Wells Ward	Greater London	UB1 2FH
474	Erasmo	Rhea	Martin Morrissey	5544 Sutherland St	Mortehoe	Devon	EX34 7DQ
475	Ivory	Lohrenz	Auto Body Color	9 Jackson St	Parr Ward	Merseyside	WA9 3QW
476	Nikita	Walka	Fred, Anthony Esq	3612 Bixteth St	Hucknall North Ward	Nottinghamshire	NG15 8DD
477	Aleta	Ligons	Advantage Bookkeeping	4545 Victoria Rd	Kilbirnie and Beith Ward	North Ayrshire	KA15 1AT
478	Owen	Jentzen	Capital Fasteners Inc	5 Hampden St	Liscard Ward	Merseyside	CH45 4RN
479	Pauline	Fling	Cumberland Vacuum Products	6452 Pilgrim St #5	Seven Sisters Ward	Greater London	N15 6TH
480	Tijuana	Machalek	Schwartz, Thomas E Esq	1149 Highfield Rd #996	Fareham South Ward	Hampshire	PO14 9JJ
481	Ahmad	Alsaqri	Alliance Construction Co Inc	21 Pickwick St	Sutton cum Duckmanton	Derbyshire	S44 5DS
482	Jamika	Conoly	Keller, Raymond C	19 Soho St	Whitley Ward	Berkshire	RG1 9XH
483	Derrick	Dolloff	Proto Tek Manufacturing	236 Blantyre Rd	Everton Ward	Merseyside	L6 2EN
484	Jacquelyne	Reibman	Great Clips For Hair	70 Lilly Rd	Shirley Ward	Greater London	CR0 7PT
485	Zachary	Freeburger	Country Kitchen	58 Gloucester Rd	Holbrook	Derbyshire	DE56 0TX
486	Sophia	Gaucher	T C E Systems Inc	88 Upper Harrington St	North East Ward	North Lanarkshire	G69 8EL
487	Isabelle	Kono	Rock Springs Petroleum Equip	4920 Fazakerley Rd	Plymstock Dunstone Ward	Devon	PL9 8RD
488	Ronnie	Brigman	Howard Johnson	6 Morley St	Batchwood Ward	Hertfordshire	AL3 5JN

489	Krystina	Schlabaugh	Harris Oldsmobile Inc	7316 Friar St	Salvington Ward	West Sussex	BN13 3FL
490	Rosita	Ausdemore	Jurdem, Scott Esq	8 Heathfield St #657	Hailsham	East Sussex	BN27 1AJ
491	Huey	Stancil	Lindner Funds	275 Peel Sq	Park Ward	North Eart Lincolnshire	DN32 0PT
492	Elbert	Fiorino	Donald, G Nelson Esq	726 Westmoreland Place	Ballochmyle Ward	East Ayrshire	KA5 6EL
493	Pura	Manciel	Cia Inspection	7 Water St	Priory Heath Ward	Suffolk	IP3 9RB
494	Alesia	Katie	Nelsons Trmt & Pest Cntrl Co	4 Covent Garden	Farnworth Ward	Greater Manchester	BL4 7AF
495	Avery	Veit	Plaza Gourmet Delicatessen	9166 Devon St #905	Knightsbridge and Belgravia Wa	Greater London	SW1W 8JY
496	Reid	Euresti	Fitzgerald, Edward J	70 Foster St	Inverness Ness-Side Ward	Highland	IV2 6WT
497	Charlette	Brenning	Furey & Associates	714 Fonthill Rd	Darton West Ward	South Yorkshire	S75 5EJ
498	Celestina	Keeny	Bfg Federal Credit Union	9 Milton St	Consett North ED	County Durham	DH8 5LP
499	Mi	Richan	Nelson Wright Haworth Golf Crs	6 Norwood Grove	Tanworth-in- Arden	Warwickshire	B94 5RZ

500 rows x 11 columns

```
In [23]: dfh.index
Out[23]: RangeIndex(start=0, stop=500, step=1)

In [ ]:
```