Pandas Indexing Cheatsheet

https://wrighters.io
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Sample Data

```
>>> s = df['city']
>>> df
   company          city       state  zip
a  Widgets, Inc.    Jay City    MO    46239
b  ABC, LLC         Wanton      TX     94562
c  ACME             Bland       AL     32329
```

Array Indexing Operator ([])

DataFrame

`df['company']`	Series, entire column
`df[['company']]`	DataFrame, with one column
`df[['company','city']]`	DataFrame, multiple columns

Series

`s[0]`	scalar, `'Jay City'`, selecting by location
`s['a']`	scalar, `'Jay City'`, selecting by index label

`loc` Indexer - selecting by index label

DataFrame

`df.loc['a']`	Series, first row matching index label
`df.loc[['a','c']]`	DataFrame, selecting by multiple labels
`df.loc['a', 'city']`	scalar, `'Jay City'`, selecting by row and column label
`df.loc[['a', 'c'], 'city']`	Series, selecting by labels and column
`df.loc[['a', 'c'], ['city', 'zip']]`	DataFrame, selecting by labels and columns

Series

`s.loc['a']`	scalar, `'Jay City'`, selecting by index label
`s.loc[['a','c']]`	Series, selecting by multiple labels
`s.loc[['a']]`	Series, selecting by a single label

`iloc` Indexer - selecting by row and column offset

DataFrame

`df.iloc[0]`	Series, first row by row location
`df.iloc[[0,2]]`	DataFrame, selecting by multiple rows
`df.iloc[0, 1]`	scalar, `'Jay City'`, selecting by row and column location
`df.iloc[[0,2], 1]`	Series, selecting by rows and a single column
`df.iloc[[0,2], [1,3]]`	DataFrame, selecting by rows and columns

Series

`s.iloc[0]`	scalar, `'Jay City'`, selecting by offset
`s.iloc[-1]`	scalar, `'Bland'`, selecting by relative offset
`s.iloc[[0,2]]`	Series, selecting by multiple offsets
`s.iloc[[0]]`	Series, selecting by a single offset

Slicing

DataFrame

`df[0:2]`	slice by row location (selects rows a, b only)
`df.loc['a':'c']`	slice by label (selects rows a, b, **and** c)
`df.iloc[0:2]`	slice by row location (selects rows a and b only)
`df.loc['a':'c', 'city':'zip']`	slice both rows and columns (inclusive for both)
`df.iloc[0:3, 1:4]`	returns same as above

Series

`s[:]`	full slice
`s[:2], s[0:2], s[0:2:1], s[slice(0,2,1)]`	all ways to slice first two elements in Series
`s['b':'c']`	slice by label, both labels inclusive
`s.loc['b':'c']`	same as above
`s.iloc[1:3]`	slice by location (non incluseive, returns labels b,c like above)

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