

## Select rows from a Pandas DataFrame based on values in a column

### import modules

```
import pandas as pd
```

### Create some dummy data

```
raw_data = {'name': ['Willard Morris', 'Al Jennings', 'Omar Mullins', 'Spencer'],  
            'age': [20, 19, 22, 21],  
            'favorite_color': ['blue', 'blue', 'yellow', "green"],  
            'grade': [88, 92, 95, 70]}  
  
df = pd.DataFrame(raw_data)  
df.head()
```

	age	favorite_color	grade	name
0	20	blue	88	Willard Morris
1	19	blue	92	Al Jennings
2	22	yellow	95	Omar Mullins
3	21	green	70	Spencer McDaniel

### Select rows based on column value:

```
#To select rows whose column value equals a scalar, some_value, use ==:  
df.loc[df['favorite_color'] == 'yellow']
```

	age	favorite_color	grade	name
2	22	yellow	95	Omar Mullins

### Select rows whose column value is in an iterable array:

```
#To select rows whose column value is in an iterable array, which we'll define  
array = ['yellow', 'green']  
df.loc[df['favorite_color'].isin(array)]
```

	age	favorite_color	grade	name
2	22	yellow	95	Omar Mullins
3	21	green	70	Spencer McDaniel

### Select rows based on multiple column conditions:

```
#To select a row based on multiple conditions you can use &:  
array = ['yellow', 'green']  
df.loc[(df['age'] == 21) & df['favorite_color'].isin(array)]
```

	age	favorite_color	grade	name
3	21	green	70	Spencer McDaniel

### Select rows where column does not equal a value:

```
#To select rows where a column value does not equal a value, use !=:  
df.loc[df['favorite_color'] != 'yellow']
```

	age	favorite_color	grade	name
0	20	blue	88	Willard Morris
1	19	blue	92	Al Jennings
3	21	green	70	Spencer McDaniel

### Select rows whose column value is not in an iterable array:

```
#To return a rows where column value is not in an iterable array, use ~ in from  
array = ['yellow', 'green']  
df.loc[~df['favorite_color'].isin(array)]
```

	age	favorite_color	grade	name
0	20	blue	88	Willard Morris
1	19	blue	92	Al Jennings

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