

eda_visuals

October 18, 2017

1 EDA with Visuals

Create visualizations to answer the quiz questions below this notebook.

```
In [1]: # Load dataset
import pandas as pd
```

```
df = pd.read_csv('winequality_edited.csv')
```

```
df.head()
```

```
Out[1]:
```

	fixed_acidity	volatile_acidity	citric_acid	residual_sugar	chlorides	\
0	7.4	0.70	0.00	1.9	0.076	
1	7.8	0.88	0.00	2.6	0.098	
2	7.8	0.76	0.04	2.3	0.092	
3	11.2	0.28	0.56	1.9	0.075	
4	7.4	0.70	0.00	1.9	0.076	

	free_sulfur_dioxide	total_sulfur_dioxide	density	pH	sulphates	\
0	11.0	34.0	0.9978	3.51	0.56	
1	25.0	67.0	0.9968	3.20	0.68	
2	15.0	54.0	0.9970	3.26	0.65	
3	17.0	60.0	0.9980	3.16	0.58	
4	11.0	34.0	0.9978	3.51	0.56	

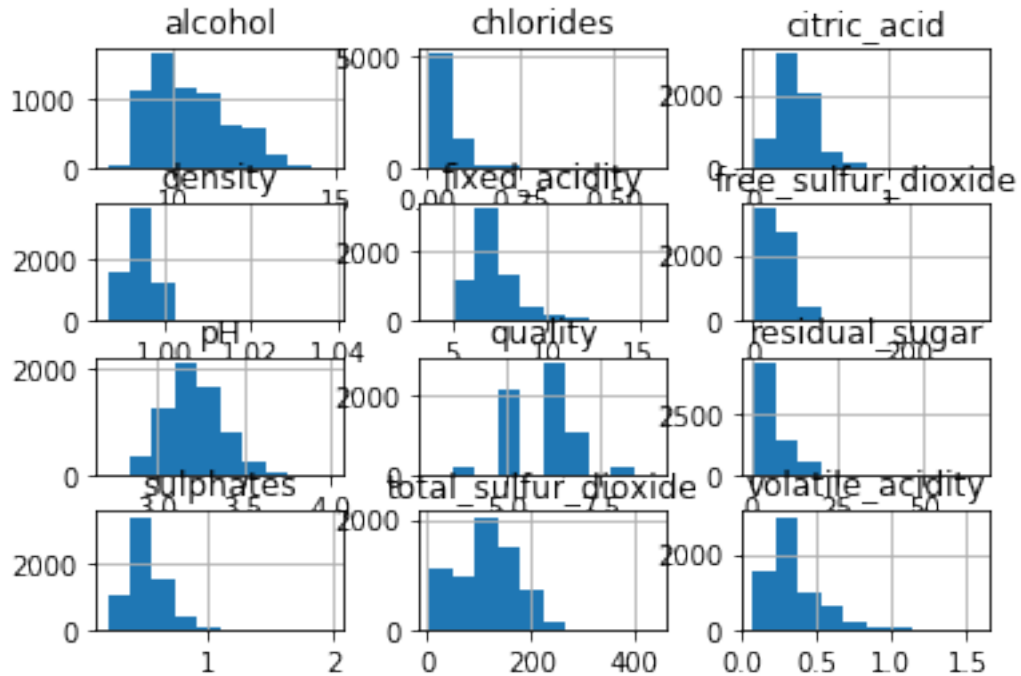
	alcohol	quality	color
0	9.4	5	RED
1	9.8	5	RED
2	9.8	5	RED
3	9.8	6	RED
4	9.4	5	RED

```
In [2]: df.shape
```

```
Out[2]: (6497, 13)
```

1.0.1 Histograms for Various Features

```
In [4]: % matplotlib inline
df.hist();
```



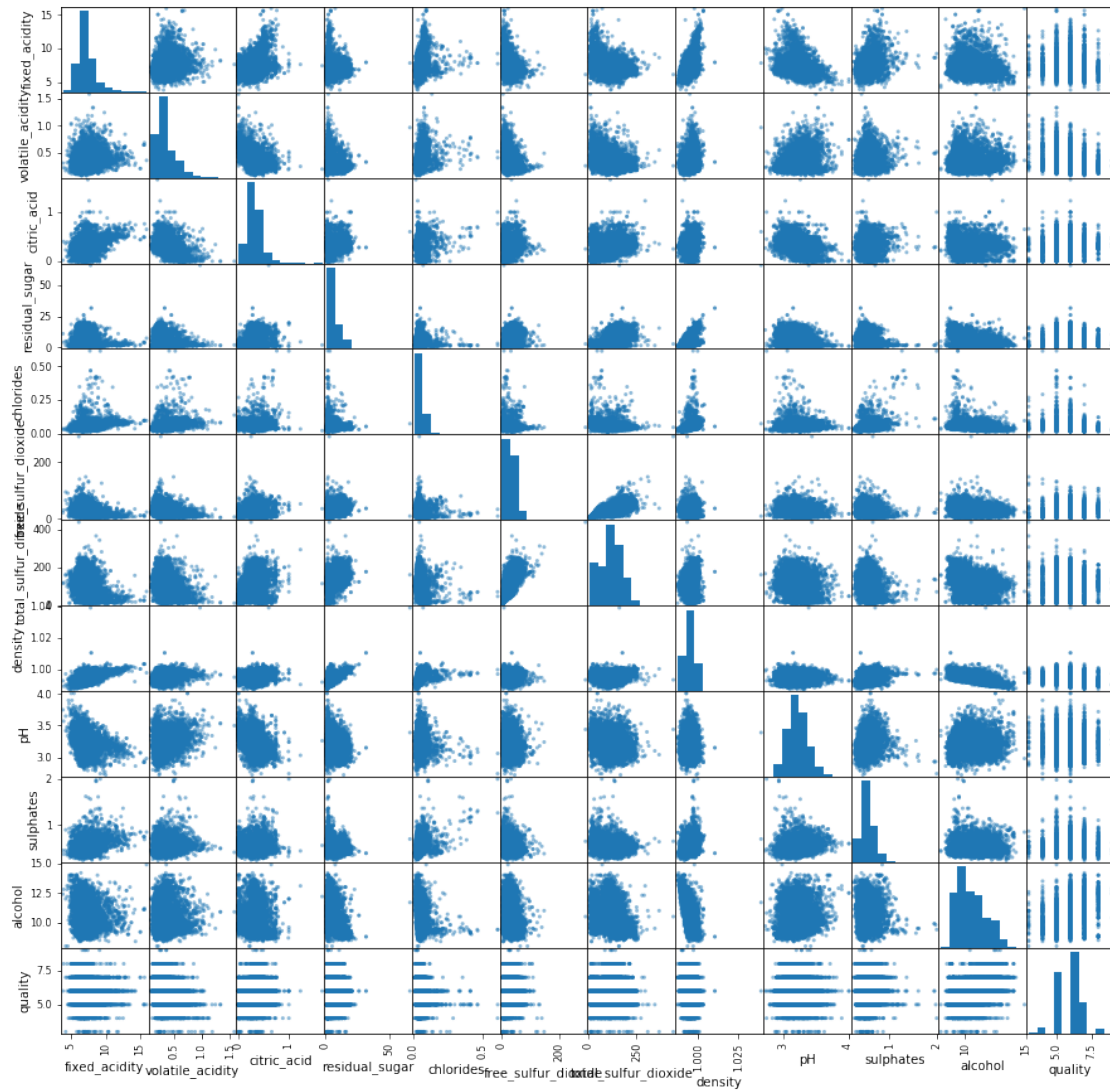
```
In [ ]:
```

```
In [ ]:
```

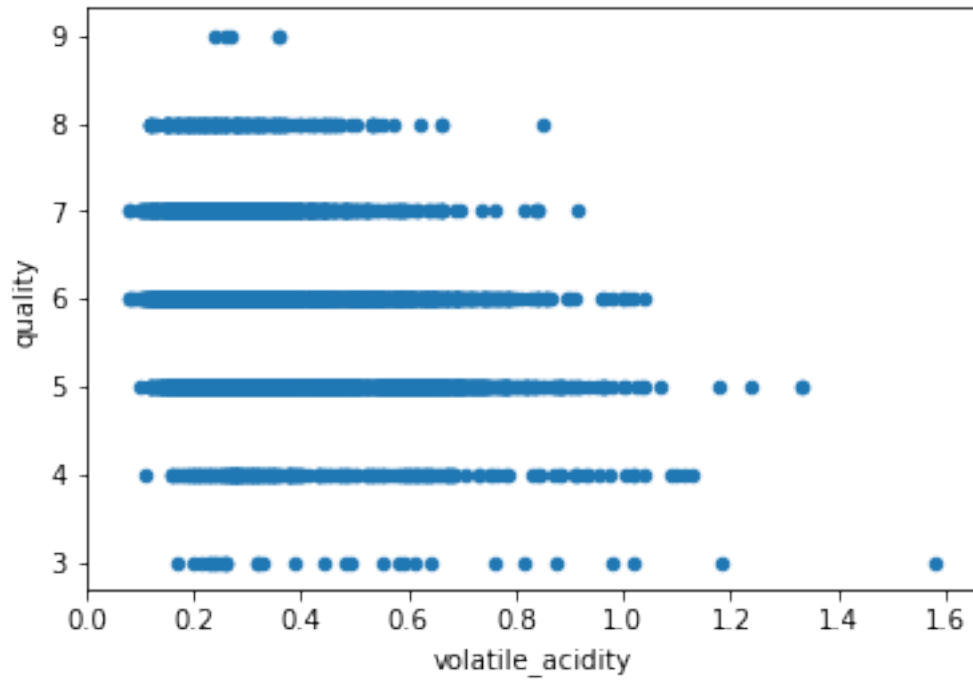
```
In [ ]:
```

1.0.2 Scatterplots of Quality Against Various Features

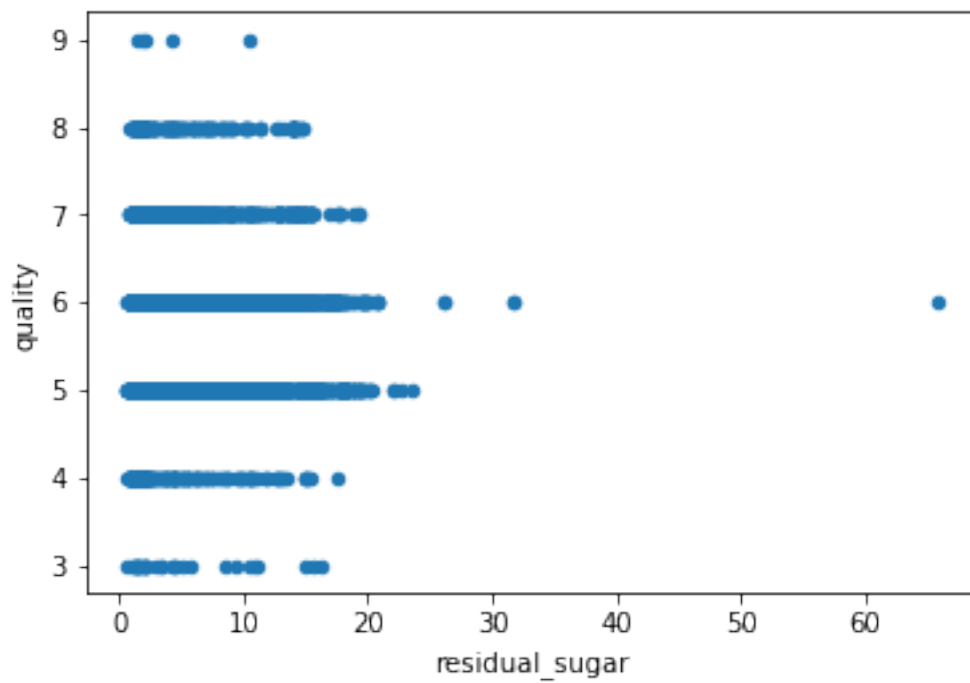
```
In [5]: pd.plotting.scatter_matrix(df, figsize=(15,15));
```



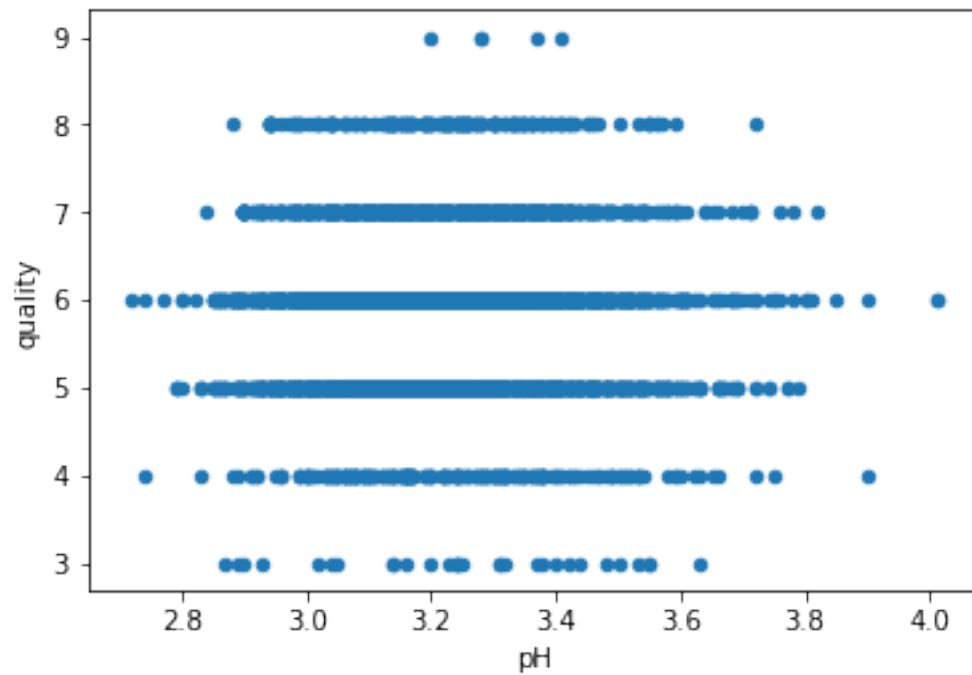
```
In [6]: df.plot(x='volatile_acidity', y='quality', kind='scatter');
```



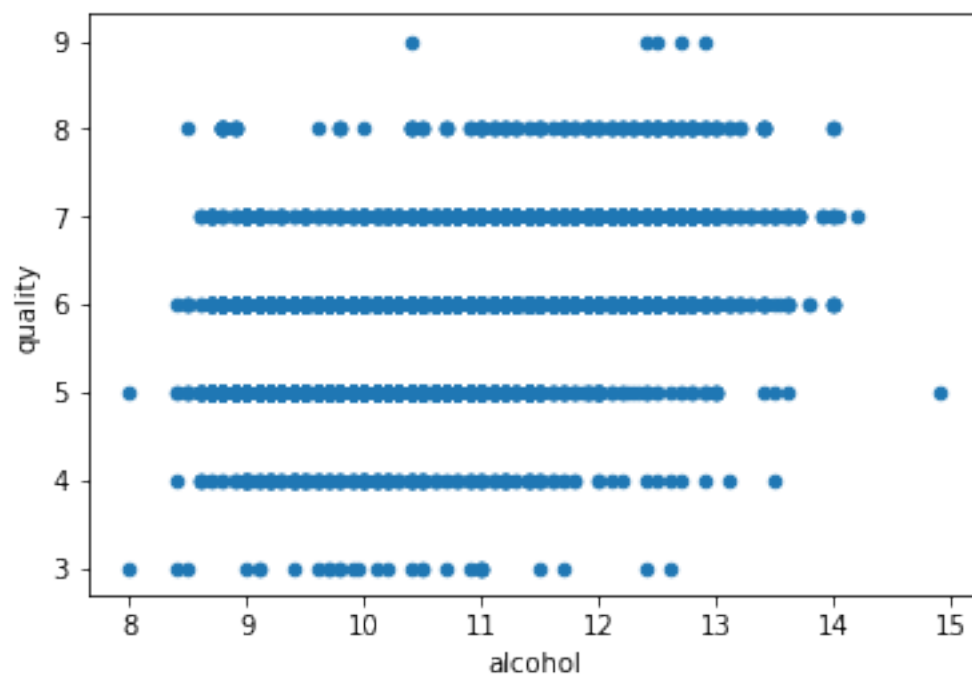
```
In [7]: df.plot(x='residual_sugar', y='quality', kind='scatter');
```



```
In [8]: df.plot(x='pH', y='quality', kind='scatter');
```



```
In [11]: df.plot(x='alcohol', y='quality', kind='scatter');
```



```
In [ ]:
```