



```
import pandas as pd
```

```
url = 'https://raw.githubusercontent.com/zachparker2014/Zachary-Parker-IntrotoMachineLearning'
df = pd.read_csv(url, index_col = 0)
```

```
df.head(7)
```

| | carat | cut | color | clarity | depth | table | price | x | y | z |  |
|---|-------|-----------|-------|---------|-------|-------|-------|------|------|------|---|
| 1 | 0.23 | Ideal | E | SI2 | 61.5 | 55.0 | 326 | 3.95 | 3.98 | 2.43 | |
| 2 | 0.21 | Premium | E | SI1 | 59.8 | 61.0 | 326 | 3.89 | 3.84 | 2.31 | |
| 3 | 0.23 | Good | E | VS1 | 56.9 | 65.0 | 327 | 4.05 | 4.07 | 2.31 | |
| 4 | 0.29 | Premium | I | VS2 | 62.4 | 58.0 | 334 | 4.20 | 4.23 | 2.63 | |
| 5 | 0.31 | Good | J | SI2 | 63.3 | 58.0 | 335 | 4.34 | 4.35 | 2.75 | |
| 6 | 0.24 | Very Good | J | VVS2 | 62.8 | 57.0 | 336 | 3.94 | 3.96 | 2.48 | |
| 7 | 0.24 | Very Good | I | VVS1 | 62.3 | 57.0 | 336 | 3.95 | 3.98 | 2.47 | |

```
df.tail(7)
```

| | carat | cut | color | clarity | depth | table | price | x | y | z |  |
|-------|-------|-----------|-------|---------|-------|-------|-------|------|------|------|---|
| 53934 | 0.70 | Very Good | E | VS2 | 61.2 | 59.0 | 2757 | 5.69 | 5.72 | 3.49 | |
| 53935 | 0.72 | Premium | D | SI1 | 62.7 | 59.0 | 2757 | 5.69 | 5.73 | 3.58 | |
| 53936 | 0.72 | Ideal | D | SI1 | 60.8 | 57.0 | 2757 | 5.75 | 5.76 | 3.50 | |
| 53937 | 0.72 | Good | D | SI1 | 63.1 | 55.0 | 2757 | 5.69 | 5.75 | 3.61 | |
| 53938 | 0.70 | Very Good | D | SI1 | 62.8 | 60.0 | 2757 | 5.66 | 5.68 | 3.56 | |
| 53939 | 0.86 | Premium | H | SI2 | 61.0 | 58.0 | 2757 | 6.15 | 6.12 | 3.74 | |
| 53940 | 0.75 | Ideal | D | SI2 | 62.2 | 55.0 | 2757 | 5.83 | 5.87 | 3.64 | |

```
df.describe()
```

| | carat | depth | table | price | x | y |
|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| count | 53940.000000 | 53940.000000 | 53940.000000 | 53940.000000 | 53940.000000 | 53940.000000 |
| mean | 0.797940 | 61.749405 | 57.457184 | 3932.799722 | 5.731157 | 5.734526 |
| std | 0.474011 | 1.432621 | 2.234491 | 3989.439738 | 1.121761 | 1.142135 |
| min | 0.200000 | 43.000000 | 43.000000 | 326.000000 | 0.000000 | 0.000000 |

```
df.describe(include = 'object')
```

| | cut | color | clarity |
|---------------|-------|-------|---------|
| count | 53940 | 53940 | 53940 |
| unique | 5 | 7 | 8 |
| top | Ideal | G | SI1 |
| freq | 21551 | 11292 | 13065 |

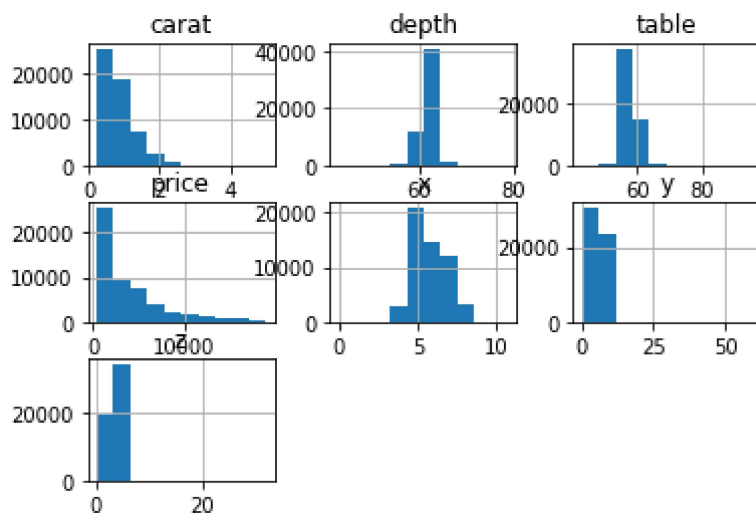


```
cut_uniques = df['cut'].unique()
print(cut_uniques)
color_uniques = df['color'].unique()
print(color_uniques)
clarity_uniques = df['clarity'].unique()
print(clarity_uniques)

['Ideal' 'Premium' 'Good' 'Very Good' 'Fair']
['E' 'I' 'J' 'H' 'F' 'G' 'D']
['SI2' 'SI1' 'VS1' 'VS2' 'VVS2' 'VVS1' 'I1' 'IF']
```

```
%matplotlib inline
```

```
hist = df.hist()
```


[+ Code](#)
[+ Text](#)

✓ 0s completed at 11:56 AM

● ✕