## Adding new columns to the data frame

November 6, 2020

## 1 Adding new columns to the data frame

```
[1]: import pandas as pd
     import seaborn as sns
[2]: diamonds_url = "https://raw.githubusercontent.com/TrainingByPackt/
      →Interactive-Data-Visualization-with-Python/master/datasets/diamonds.csv"
[3]: diamonds_df = pd.read_csv(diamonds_url)
    diamonds_df['price_per_carat'] = diamonds_df['price']/diamonds_df['carat']
[5]: diamonds_df.head()
[5]:
                   cut color clarity
                                      depth
        carat
                                              table
                                                    price
                                                               Х
                                                                     у
                                                                           Z
         0.23
                           Ε
                                                       326
                 Ideal
                                 SI2
                                       61.5
                                               55.0
                                                            3.95
                                                                  3.98
         0.21
              Premium
                           Ε
                                       59.8
                                               61.0
                                                       326
                                                            3.89
                                                                  3.84
                                                                        2.31
     1
                                 SI1
     2
         0.23
                  Good
                           F.
                                 VS1
                                       56.9
                                               65.0
                                                       327
                                                            4.05
                                                                  4.07
                                                                        2.31
     3
         0.29
              Premium
                           Ι
                                 VS2
                                       62.4
                                               58.0
                                                       334 4.20 4.23 2.63
                           .J
                                               58.0
                                                       335 4.34 4.35 2.75
         0.31
                  Good
                                 SI2
                                       63.3
        price_per_carat
     0
            1417.391304
     1
            1552.380952
     2
            1421.739130
     3
            1151.724138
            1080.645161
```

## 2 Conditional addition of columns

```
[7]:
               cut color clarity depth table price
       carat
                                                        X
                                                             У
    0
        0.23
                Ideal
                         E
                               SI2
                                     61.5
                                            55.0
                                                   326 3.95 3.98 2.43
    1
        0.21
             Premium
                         E
                               SI1
                                     59.8
                                            61.0
                                                   326 3.89 3.84 2.31
    2
        0.23
                 {\tt Good}
                         Ε
                               VS1
                                     56.9
                                            65.0
                                                   327 4.05 4.07 2.31
                         Ι
                                     62.4
                                                   334 4.20 4.23 2.63
    3
        0.29 Premium
                               VS2
                                            58.0
        0.31
                 Good
                         J
                               SI2
                                     63.3
                                            58.0
                                                   335 4.34 4.35 2.75
       price_per_carat price_per_carat_is_high
    0
           1417.391304
                                             0
    1
           1552.380952
    2
           1421.739130
                                             0
     3
                                             0
           1151.724138
     4
           1080.645161
                                             0
[]:
```