```
In [105...
          #E23CSEU0484
          import pandas as pd
          df= pd.read_csv("Housing.csv")
          print(df.head())
               price area bedrooms bathrooms stories mainroad guestroom basement \
         0 13300000 7420
                                  4
                                              2
                                                       3
                                                              yes
                                                                         no
                                                                                  no
         1 12250000 8960
                                   4
                                              4
                                                       4
                                                              yes
                                                                         no
                                                                                  no
         2 12250000 9960
                                              2
                                   3
                                                       2
                                                                         no
                                                                                 yes
                                                              yes
         3 12215000 7500
                                   4
                                              2
                                                       2
                                                              yes
                                                                         no
                                                                                 yes
         4 11410000 7420
                                   4
                                              1
                                                       2
                                                              yes
                                                                                 yes
                                                                        yes
          hotwaterheating airconditioning parking prefarea furnishingstatus
                                                  2
                                                                    furnished
                        no
                                                         yes
                                       yes
                                                  3
                                                                    furnished
         1
                        no
                                                         no
                                       yes
         2
                                                  2
                                                         yes
                                                               semi-furnished
                        no
                                       no
         3
                                       yes
                                                                    furnished
                                                  3
                                                         yes
                        no
                                                  2
                                                                    furnished
         4
                        no
                                      yes
                                                         no
In [107...
         #E23CSEU0484
          shape = df.shape
          att = df.columns.tolist()
          print(shape, att,sep='\n')
         (545, 13)
         ['price', 'area', 'bedrooms', 'bathrooms', 'stories', 'mainroad', 'guestroom', 'base
         ment', 'hotwaterheating', 'airconditioning', 'parking', 'prefarea', 'furnishingstatu
         s']
         #E23CSEU0484
In [109...
          des = df.describe()
          dat_ty = df.dtypes
          print(des, dat_ty,sep='\n')
```

```
price
                                              bedrooms
                                                                        stories \
         count 5.450000e+02
                                545.000000 545.000000
                                                         545.000000 545.000000
                4.766729e+06
                               5150.541284
                                              2.965138
                                                           1.286239
                                                                       1.805505
                1.870440e+06
                               2170.141023
                                              0.738064
                                                           0.502470
                                                                       0.867492
         std
                1.750000e+06
                               1650.000000
                                              1.000000
                                                           1.000000
                                                                       1.000000
         min
         25%
                3.430000e+06
                               3600.000000
                                              2.000000
                                                           1.000000
                                                                       1.000000
         50%
                4.340000e+06
                               4600.000000
                                              3.000000
                                                           1.000000
                                                                       2.000000
         75%
                5.740000e+06
                               6360.000000
                                              3.000000
                                                           2.000000
                                                                       2.000000
                1.330000e+07 16200.000000
                                                           4.000000
                                                                       4.000000
         max
                                              6.000000
                   parking
         count 545.000000
                  0.693578
         mean
         std
                  0.861586
         min
                  0.000000
         25%
                  0.000000
         50%
                  0.000000
         75%
                  1.000000
                  3.000000
         max
         price
                              int64
                              int64
         area
         bedrooms
                              int64
         bathrooms
                              int64
         stories
                              int64
         mainroad
                             object
         guestroom
                             object
         basement
                             object
         hotwaterheating
                             object
                             object
         airconditioning
         parking
                              int64
         prefarea
                             object
         furnishingstatus
                             object
         dtype: object
In [111...
          #E23CSEU0484
          new = ['price', 'bedrooms', 'bathrooms', 'stories', 'parking', 'furnishingstatus']
          new_df=df[new]
In [113...
          #E23CSEU0484
          fur_coun = df['furnishingstatus'].value_counts()
          print(fur_coun)
         furnishingstatus
         semi-furnished
                           227
         unfurnished
                           178
         furnished
                           140
         Name: count, dtype: int64
In [115...
          #E23CSEU0484
          import pandas as pd
          df= pd.read csv("Salaries.csv")
          dff_sub = df.iloc[20:51]
          print(dff_sub)
```

area

bathrooms

```
rank discipline phd service
                                                    sex salary
         20
              AsstProf
                                     4
                                                   Male
                                                         92000
         21
                  Prof
                                    33
                                             30
                                                   Male 103106
                                Α
         22
              AsstProf
                                Α
                                   4
                                              2
                                                   Male 73000
         23
             AsstProf
                                Α
                                     2
                                              0
                                                   Male
                                                        85000
                                                   Male
                                                        91100
         24
                  Prof
                                Α
                                   30
                                             23
         25
                  Prof
                                В
                                   35
                                             31
                                                   Male
                                                        99418
         26
                  Prof
                                Α
                                    38
                                             19
                                                   Male 148750
         27
                                Α
                                    45
                                             43
                                                   Male 155865
                  Prof
         28
                                    7
                                              2
                                                   Male
                                                         91300
             AsstProf
                                В
         29
                  Prof
                                В
                                   21
                                             20
                                                   Male 123683
                                    9
                                              7
                                                   Male 107008
         30 AssocProf
                                В
         31
                  Prof
                                В
                                    22
                                             21
                                                   Male 155750
         32
                  Prof
                                Α
                                   27
                                             19
                                                   Male 103275
         33
                  Prof
                                В
                                   18
                                             18
                                                   Male 120000
         34 AssocProf
                                В
                                    12
                                              8
                                                   Male 119800
         35
                  Prof
                                В
                                    28
                                             23
                                                   Male 126933
                                В
                                    45
                                             45
                                                   Male 146856
         36
                  Prof
         37
                  Prof
                                Α
                                   20
                                              8
                                                   Male 102000
         38
             AsstProf
                                В
                                    4
                                              3
                                                   Male
                                                         91000
                                             18 Female 129000
         39
                  Prof
                                В
                                    18
                  Prof
                                             36 Female 137000
         40
                                Α
                                    39
         41 AssocProf
                                Α
                                    13
                                              8 Female
                                                          74830
             AsstProf
                                   4
                                              2 Female
                                                        80225
         42
                                В
         43
              AsstProf
                                В
                                     5
                                                 Female
                                                         77000
         44
                  Prof
                                В
                                   23
                                             19
                                                 Female 151768
         45
                                    25
                                             25 Female 140096
                  Prof
                                В
                                В
                                              3 Female
         46
             AsstProf
                                   11
                                                         74692
         47 AssocProf
                                В
                                   11
                                             11 Female 103613
         48
                  Prof
                                В
                                    17
                                             17
                                                 Female 111512
         49
                  Prof
                                В
                                    17
                                             18
                                                 Female 122960
         50
              AsstProf
                                В
                                              5 Female
                                                          97032
In [117...
          #E23CSEU0484
          dff_sub = df[['discipline']]
          print(dff_sub)
            discipline
         0
                     В
         1
                     Α
         2
                     Α
         3
                     Α
         4
                     В
         . .
                   . . .
         73
                     В
         74
                     В
         75
                     В
         76
                     Α
         77
                     Α
         [78 rows x 1 columns]
In [119...
          #E23CSEU0484
          uni_ran = df['rank'].unique()
          print(uni_ran)
         ['Prof' 'AssocProf' 'AsstProf']
```