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1 "D:\Winter PEP 2019\SEM 6\venv\Scripts\python.
  exe" "D:/Winter PEP 2019/SEM 6/prototype 3.py"
2 <bound method DataFrame.info of          age
  sex      bmi  children smoker      region
  charges
3 D:/Winter PEP 2019/SEM 6/prototype 3.py:14:
  SettingWithCopyWarning:
4 0      19  female  27.900          0      yes
  southwest  16884.92400
5 1      18   male  33.770          1      no
  southeast  1725.55230
6 2      28   male  33.000          3      no
  southeast  4449.46200
7 A value is trying to be set on a copy of a
  slice from a DataFrame
8 3      33   male  22.705          0      no
  northwest  21984.47061
9
10 4      32   male  28.880          0      no
  northwest  3866.85520
11 ...    ...    ...    ...    ...    ...
    ...    ...
12 See the caveats in the documentation: http://
  pandas.pydata.org/pandas-docs/stable/user\_guide
  /indexing.html#returning-a-view-versus-a-copy
13 1333   50   male  30.970          3      no
  northwest  10600.54830
14   data.smoker[data.smoker == 'yes'] = 0
15 1334   18  female  31.920          0      no
  northeast  2205.98080
16 1335   18  female  36.850          0      no
  southeast  1629.83350
17 1336   21  female  25.800          0      no
  southwest  2007.94500
18 1337   61  female  29.070          0      yes
  northwest  29141.36030
19

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20 [1338 rows x 7 columns]>
21 D:/Winter PEP 2019/SEM 6/prototype 3.py:15:
   SettingWithCopyWarning:
22 A value is trying to be set on a copy of a
   slice from a DataFrame
23
24 See the caveats in the documentation: http://
   pandas.pydata.org/pandas-docs/stable/user\_guide
   /indexing.html#returning-a-view-versus-a-copy
25   data.smoker[data.smoker == 'no'] = 1
26 D:/Winter PEP 2019/SEM 6/prototype 3.py:17:
   SettingWithCopyWarning:
27 A value is trying to be set on a copy of a
   slice from a DataFrame
28
29 See the caveats in the documentation: http://
   pandas.pydata.org/pandas-docs/stable/user\_guide
   /indexing.html#returning-a-view-versus-a-copy
30   data.sex[data.sex == 'female'] = 0
31 D:/Winter PEP 2019/SEM 6/prototype 3.py:18:
   SettingWithCopyWarning:
32 A value is trying to be set on a copy of a
   slice from a DataFrame
33
34 See the caveats in the documentation: http://
   pandas.pydata.org/pandas-docs/stable/user\_guide
   /indexing.html#returning-a-view-versus-a-copy
35   data.sex[data.sex == 'male'] = 1
36 D:/Winter PEP 2019/SEM 6/prototype 3.py:20:
   SettingWithCopyWarning:
37 A value is trying to be set on a copy of a
   slice from a DataFrame
38
39 See the caveats in the documentation: http://
   pandas.pydata.org/pandas-docs/stable/user\_guide
   /indexing.html#returning-a-view-versus-a-copy
40   data.region[data.region == 'southeast'] = 1
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41 D:/Winter PEP 2019/SEM 6/prototype 3.py:21:
    SettingWithCopyWarning:
42 A value is trying to be set on a copy of a
    slice from a DataFrame
43
44 See the caveats in the documentation: http://
    pandas.pydata.org/pandas-docs/stable/user\_guide
    /indexing.html#returning-a-view-versus-a-copy
45     data.region[data.region == 'southwest'] = 2
46 D:/Winter PEP 2019/SEM 6/prototype 3.py:22:
    SettingWithCopyWarning:
47 A value is trying to be set on a copy of a
    slice from a DataFrame
48
49 See the caveats in the documentation: http://
    pandas.pydata.org/pandas-docs/stable/user\_guide
    /indexing.html#returning-a-view-versus-a-copy
50     data.region[data.region == 'northeast'] = 3
51 D:/Winter PEP 2019/SEM 6/prototype 3.py:23:
    SettingWithCopyWarning:
52 A value is trying to be set on a copy of a
    slice from a DataFrame
53
54 See the caveats in the documentation: http://
    pandas.pydata.org/pandas-docs/stable/user\_guide
    /indexing.html#returning-a-view-versus-a-copy
55     data.region[data.region == 'northwest'] = 4
56 D:/Winter PEP 2019/SEM 6/prototype 3.py:25:
    SettingWithCopyWarning:
57 A value is trying to be set on a copy of a
    slice from a DataFrame
58
59 See the caveats in the documentation: http://
    pandas.pydata.org/pandas-docs/stable/user\_guide
    /indexing.html#returning-a-view-versus-a-copy
60     data.obesity[data.bmi >=30] = 1
61 D:/Winter PEP 2019/SEM 6/prototype 3.py:26:
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61 SettingWithCopyWarning:
62 A value is trying to be set on a copy of a
   slice from a DataFrame
63
64 See the caveats in the documentation: http://
   pandas.pydata.org/pandas-docs/stable/user\_guide
   /indexing.html#returning-a-view-versus-a-copy
65 data.obesity[data.bmi <30] = 0
66 [[19 18 28 ... 18 21 61]
67  [0 1 1 ... 0 0 0]
68  [27.9 33.77 33.0 ... 36.85 25.8 29.07]
69  ...
70  [2 1 1 ... 1 2 4]
71  [0 1 1 ... 1 0 0]
72  [16884.924 1725.5523 4449.462 ... 1629.8335
   2007.945 29141.3603]]
73 (1338, 7)
74 (1338,)
75 [-1.80556450e-16 -1.23468749e-16 -2.12419353e-
   16 -5.57600802e-17
76  -1.60642136e-16  7.96572574e-17 -1.06209676e-
   16 -7.83296364e-17]
77 [1. 1. 1. 1. 1. 1. 1. 1.]
78 (1338, 7)
79 (1338,)
80 age : 0.29900819333064754
81 sex : 0.05729206220202532
82 bmi : 0.19834096883362884
83 children : 0.06799822684790466
84 smoker : 0.7872514304984786
85 region : 0.05699278109241926
86 obesity : 0.19953172426158616
87 charges : 0.99999999999999991
88 Linear Regression
89 Training Data (936, 7) (936,)
90 Testing Data (402, 7)
91 MSE-> Train: 37245079.553,Test:32715069.984

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92 R2_Score -> Train: 0.736,Test:0.795
93 Random Forest Regression
94 [3393.53677619]
95 [[18.      0.      28.215  0.      1.      3.      0
    .      ]]
96 MSE -> Train: 3535449.280, MSE test: 21759935.
    506
97 R2 Score-> Train: 0.975, MSE test: 0.864
98
99 Process finished with exit code 0
100
```