

Python 3.8.4 (tags/v3.8.4:dfa645a, Jul 13 2020, 16:30:28) [MSC v.1926 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license" for more information.

```
>>> import pandas as pd
>>> df=pd.read_csv('C:/Users/ppp/Desktop/data.csv')
>>> df.dtypes
Age          int64
BMI          float64
Glucose      int64
Insulin      float64
HOMA         float64
Leptin       float64
Adiponectin  float64
Resistin     float64
MCP.1        float64
Classification int64
dtype: object
>>> df.describe()
      Age      BMI  Glucose  Insulin ... Adiponectin  Resistin      MCP.1
Classification
count 116.000000 116.000000 116.000000 116.000000 ... 116.000000 116.000000
116.000000      116.000000
mean  57.301724 27.582111 97.793103 10.012086 ... 10.180874 14.725966
534.647000      1.551724
std   16.112766  5.020136 22.525162 10.067768 ...  6.843341 12.390646 345.912663
0.499475
min   24.000000 18.370000 60.000000  2.432000 ...  1.656020  3.210000 45.843000
1.000000
25%   45.000000 22.973205 85.750000  4.359250 ...  5.474283  6.881763
269.978250      1.000000
50%   56.000000 27.662416 92.000000  5.924500 ...  8.352692 10.827740
471.322500      2.000000
75%   71.000000 31.241442 102.000000 11.189250 ... 11.815970 17.755207
700.085000      2.000000
max   89.000000 38.578759 201.000000 58.460000 ... 38.040000 82.100000
1698.440000      2.000000
```

[8 rows x 10 columns]

```
>>> df.groupby(by=['Age']).size()
Age
24  1
25  1
28  1
```

29	2
32	1
34	3
35	2
36	2
38	2
40	2
41	1
42	2
43	3
44	4
45	7
46	3
47	1
48	4
49	5
50	1
51	4
52	1
53	1
54	3
55	1
57	1
58	1
59	2
60	2
61	1
62	2
64	2
65	3
66	5
67	1
68	3
69	5
71	3
72	3
73	2
74	1
75	4
76	4
77	2
78	1
81	1
82	2

```

83  1
85  2
86  3
89  1
dtype: int64
>>> df.isna().sum()
Age          0
BMI          0
Glucose      0
Insulin      0
HOMA         0
Leptin       0
Adiponectin  0
Resistin     0
MCP.1        0
Classification 0
dtype: int64
>>> df.isnull()
   Age  BMI  ...  MCP.1  Classification
0  False False ... False          False
1  False False ... False          False
2  False False ... False          False
3  False False ... False          False
4  False False ... False          False
..  ...  ...  ...  ...
111 False False ... False          False
112 False False ... False          False
113 False False ... False          False
114 False False ... False          False
115 False False ... False          False

[116 rows x 10 columns]
>>> type("Age")
<class 'str'>
>>> type("BMI")
<class 'str'>

>>> df.Age.astype(float)
0    48.0
1    83.0
2    82.0
3    68.0
4    86.0
...
```

```
111 45.0
```

```
112 62.0
```

```
113 65.0
```

```
114 72.0
```

```
115 86.0
```

```
Name: Age, Length: 116, dtype: float64
```

```
>>> df.Age=df.Age.astype(float)
```

```
>>> df.describe()
```

```
      Age      BMI  Glucose  Insulin      HOMA      Leptin Adiponectin  Resistin
MCP.1 Classification
count 116.000000 116.000000 116.000000 116.000000 116.000000 116.000000 116.000000
116.000000 116.000000 116.000000 116.000000
mean  57.301724 27.582111 97.793103 10.012086 2.694988 26.615080 10.180874
14.725966 534.647000 1.551724
std   16.112766 5.020136 22.525162 10.067768 3.642043 19.183294 6.843341
12.390646 345.912663 0.499475
min   24.000000 18.370000 60.000000 2.432000 0.467409 4.311000 1.656020
3.210000 45.843000 1.000000
25%   45.000000 22.973205 85.750000 4.359250 0.917966 12.313675 5.474283
6.881763 269.978250 1.000000
50%   56.000000 27.662416 92.000000 5.924500 1.380939 20.271000 8.352692
10.827740 471.322500 2.000000
75%   71.000000 31.241442 102.000000 11.189250 2.857787 37.378300 11.815970
17.755207 700.085000 2.000000
max   89.000000 38.578759 201.000000 58.460000 25.050342 90.280000 38.040000
82.100000 1698.440000 2.000000
```

```
>>> df.dtypes
```

```
Age      float64
```

```
BMI      float64
```

```
Glucose   int64
```

```
Insulin   float64
```

```
HOMA      float64
```

```
Leptin    float64
```

```
Adiponectin float64
```

```
Resistin  float64
```

```
MCP.1     float64
```

```
Classification int64
```

```
dtype: object
```

```
>>> df.sort_values('Age')
```

```
      Age      BMI  Glucose  Insulin ... Adiponectin Resistin  MCP.1 Classification
13  24 18.670000    88  6.107 ... 36.060000  6.85000  632.220          1
12  25 22.860000    82  4.090 ... 23.670000  5.14000  313.730          1
```

32	28	35.855815	87	8.576	...	4.794200	21.44366	358.624	1
22	29	32.270788	84	5.810	...	6.209635	24.60330	904.981	1
11	29	23.010000	82	5.663	...	26.720000	4.58000	174.800	1
..
87	85	27.688778	196	51.814	...	7.901685	55.21530	1078.359	2
4	86	21.111111	92	3.549	...	4.819240	10.57635	773.920	1
78	86	26.666667	201	41.611	...	5.357135	24.37010	1698.440	2
115	86	27.180000	138	19.910	...	14.110000	4.35000	90.090	2
6	89	22.700000	77	4.690	...	5.589865	12.93610	1256.083	1

[116 rows x 10 columns]

```
>>> df.sort_values('Age',ascending=False)
```

	Age	BMI	Glucose	Insulin	...	Adiponectin	Resistin	MCP.1	Classification
6	89	22.700000	77	4.690	...	5.589865	12.93610	1256.083	1
115	86	27.180000	138	19.910	...	14.110000	4.35000	90.090	2
78	86	26.666667	201	41.611	...	5.357135	24.37010	1698.440	2
4	86	21.111111	92	3.549	...	4.819240	10.57635	773.920	1
49	85	26.600000	96	4.462	...	7.931700	9.61350	232.006	1
..
22	29	32.270788	84	5.810	...	6.209635	24.60330	904.981	1
11	29	23.010000	82	5.663	...	26.720000	4.58000	174.800	1
32	28	35.855815	87	8.576	...	4.794200	21.44366	358.624	1
12	25	22.860000	82	4.090	...	23.670000	5.14000	313.730	1
13	24	18.670000	88	6.107	...	36.060000	6.85000	632.220	1

[116 rows x 10 columns]

```
>>> df.rename(columns={'Age':'Year Old'})
```

	Year Old	BMI	Glucose	Insulin	...	Adiponectin	Resistin	MCP.1	Classification
0	48	23.500000	70	2.707	...	9.702400	7.99585	417.114	1
1	83	20.690495	92	3.115	...	5.429285	4.06405	468.786	1
2	82	23.124670	91	4.498	...	22.432040	9.27715	554.697	1
3	68	21.367521	77	3.226	...	7.169560	12.76600	928.220	1
4	86	21.111111	92	3.549	...	4.819240	10.57635	773.920	1
..
111	45	26.850000	92	3.330	...	12.100000	10.96000	268.230	2
112	62	26.840000	100	4.530	...	21.420000	7.32000	330.160	2
113	65	32.050000	97	5.730	...	22.540000	10.33000	314.050	2
114	72	25.590000	82	2.820	...	33.750000	3.27000	392.460	2
115	86	27.180000	138	19.910	...	14.110000	4.35000	90.090	2

[116 rows x 10 columns]

```
>>> df.sort_index()
```

	Age	BMI	Glucose	Insulin	...	Adiponectin	Resistin	MCP.1	Classification
0	48	23.500000	70	2.707	...	9.702400	7.99585	417.114	1

1	83	20.690495	92	3.115	...	5.429285	4.06405	468.786	1
2	82	23.124670	91	4.498	...	22.432040	9.27715	554.697	1
3	68	21.367521	77	3.226	...	7.169560	12.76600	928.220	1
4	86	21.111111	92	3.549	...	4.819240	10.57635	773.920	1
...
111	45	26.850000	92	3.330	...	12.100000	10.96000	268.230	2
112	62	26.840000	100	4.530	...	21.420000	7.32000	330.160	2
113	65	32.050000	97	5.730	...	22.540000	10.33000	314.050	2
114	72	25.590000	82	2.820	...	33.750000	3.27000	392.460	2
115	86	27.180000	138	19.910	...	14.110000	4.35000	90.090	2

[116 rows x 10 columns]

```
>>> df.reset_index()
```

	index	Age	BMI	Glucose	...	Adiponectin	Resistin	MCP.1	Classification
0	0	48	23.500000	70	...	9.702400	7.99585	417.114	1
1	1	83	20.690495	92	...	5.429285	4.06405	468.786	1
2	2	82	23.124670	91	...	22.432040	9.27715	554.697	1
3	3	68	21.367521	77	...	7.169560	12.76600	928.220	1
4	4	86	21.111111	92	...	4.819240	10.57635	773.920	1
...
111	111	45	26.850000	92	...	12.100000	10.96000	268.230	2
112	112	62	26.840000	100	...	21.420000	7.32000	330.160	2
113	113	65	32.050000	97	...	22.540000	10.33000	314.050	2
114	114	72	25.590000	82	...	33.750000	3.27000	392.460	2
115	115	86	27.180000	138	...	14.110000	4.35000	90.090	2

[116 rows x 11 columns]

```
>>> df.drop(columns=['Age'])
```

	BMI	Glucose	Insulin	HOMA	...	Adiponectin	Resistin	MCP.1	Classification
0	23.500000	70	2.707	0.467409	...	9.702400	7.99585	417.114	1
1	20.690495	92	3.115	0.706897	...	5.429285	4.06405	468.786	1
2	23.124670	91	4.498	1.009651	...	22.432040	9.27715	554.697	1
3	21.367521	77	3.226	0.612725	...	7.169560	12.76600	928.220	1
4	21.111111	92	3.549	0.805386	...	4.819240	10.57635	773.920	1
...
111	26.850000	92	3.330	0.755688	...	12.100000	10.96000	268.230	2
112	26.840000	100	4.530	1.117400	...	21.420000	7.32000	330.160	2
113	32.050000	97	5.730	1.370998	...	22.540000	10.33000	314.050	2
114	25.590000	82	2.820	0.570392	...	33.750000	3.27000	392.460	2
115	27.180000	138	19.910	6.777364	...	14.110000	4.35000	90.090	2

[116 rows x 9 columns]

```
>>> pd.melt(df)
```

variable	value
----------	-------

```

0      Age  48.0
1      Age  83.0
2      Age  82.0
3      Age  68.0
4      Age  86.0
...
1155 Classification  2.0
1156 Classification  2.0
1157 Classification  2.0
1158 Classification  2.0
1159 Classification  2.0

```

[1160 rows x 2 columns]

```
>>> df.drop_duplicates()
```

```

      Age      BMI  Glucose  Insulin  ...  Adiponectin  Resistin  MCP.1  Classification
0   48  23.500000     70   2.707  ...    9.702400   7.99585  417.114           1
1   83  20.690495     92   3.115  ...    5.429285   4.06405  468.786           1
2   82  23.124670     91   4.498  ...   22.432040   9.27715  554.697           1
3   68  21.367521     77   3.226  ...    7.169560  12.76600  928.220           1
4   86  21.111111     92   3.549  ...    4.819240  10.57635  773.920           1
..  ...
111  45  26.850000     92   3.330  ...   12.100000  10.96000  268.230           2
112  62  26.840000    100   4.530  ...   21.420000   7.32000  330.160           2
113  65  32.050000     97   5.730  ...   22.540000  10.33000  314.050           2
114  72  25.590000     82   2.820  ...   33.750000   3.27000  392.460           2
115  86  27.180000    138  19.910  ...   14.110000   4.35000   90.090           2

```

[116 rows x 10 columns]

```
>>> df.head(5)
```

```

      Age      BMI  Glucose  Insulin  ...  Adiponectin  Resistin  MCP.1  Classification
0   48  23.500000     70   2.707  ...    9.702400   7.99585  417.114           1
1   83  20.690495     92   3.115  ...    5.429285   4.06405  468.786           1
2   82  23.124670     91   4.498  ...   22.432040   9.27715  554.697           1
3   68  21.367521     77   3.226  ...    7.169560  12.76600  928.220           1
4   86  21.111111     92   3.549  ...    4.819240  10.57635  773.920           1

```

[5 rows x 10 columns]

```
>>> df.tail(5)
```

```

      Age      BMI  Glucose  Insulin  ...  Adiponectin  Resistin  MCP.1  Classification
111  45  26.85     92   3.33  ...    12.10   10.96  268.23           2
112  62  26.84    100   4.53  ...    21.42    7.32  330.16           2
113  65  32.05     97   5.73  ...    22.54   10.33  314.05           2
114  72  25.59     82   2.82  ...    33.75    3.27  392.46           2
115  86  27.18    138  19.91  ...    14.11    4.35   90.09           2

```

[5 rows x 10 columns]

```
Age      6647.000000
BMI      3199.524856
Glucose  11344.000000
Insulin  1161.402000
HOMA      312.618557
Leptin   3087.349300
Adiponectin 1180.981380
Resistin 1708.212040
MCP.1    62019.052000
Classification 180.000000
dtype: float64
```

```
>>> df.count()
```

```
Age      116
BMI      116
Glucose  116
Insulin  116
HOMA     116
Leptin   116
Adiponectin 116
Resistin 116
MCP.1    116
Classification 116
dtype: int64
```

```
>>> df.median()
```

```
Age      56.000000
BMI      27.662416
Glucose  92.000000
Insulin  5.924500
HOMA      1.380939
Leptin   20.271000
Adiponectin 8.352692
Resistin 10.827740
MCP.1    471.322500
Classification 2.000000
dtype: float64
```

```
>>> df.quantile()
```

```
Age      56.000000
BMI      27.662416
Glucose  92.000000
Insulin  5.924500
```



```
HOMA          1.380939
Leptin        20.271000
Adiponectin   8.352692
Resistin      10.827740
MCP.1         471.322500
Classification 2.000000
Name: 0.5, dtype: float64
```

```
>>> df.min()
```

```
Age          24.000000
BMI           18.370000
Glucose       60.000000
Insulin       2.432000
HOMA          0.467409
Leptin        4.311000
Adiponectin   1.656020
Resistin      3.210000
MCP.1         45.843000
Classification 1.000000
dtype: float64
```

```
>>> df.max()
```

```
Age          89.000000
BMI          38.578759
Glucose      201.000000
Insulin      58.460000
HOMA         25.050342
Leptin       90.280000
Adiponectin  38.040000
Resistin     82.100000
MCP.1       1698.440000
Classification 2.000000
dtype: float64
```

```
>>> df.mean()
```

```
Age          57.301724
BMI          27.582111
Glucose      97.793103
Insulin      10.012086
HOMA         2.694988
Leptin       26.615080
Adiponectin  10.180874
Resistin     14.725966
MCP.1        534.647000
Classification 1.551724
dtype: float64
```

```
>>> df.std()
```

```
Age      16.112766
BMI       5.020136
Glucose   22.525162
Insulin   10.067768
HOMA      3.642043
Leptin    19.183294
Adiponectin 6.843341
Resistin  12.390646
MCP.1     345.912663
Classification 0.499475
dtype: float64
```

```
>>> pd.get_dummies(df['Age'])
```

```
    24 25 28 29 32 34 35 36 38 40 41 42 43 44 45 46 47 48 49 50 ... 64 65 66 67
68 69 71 72 73 74 75 76 77 78 81 82 83 85 86 89
0  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 ... 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
1  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 ... 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0
2  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 ... 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0
3  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 ... 0 0 0 0 1 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
4  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 ... 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0
... ..
... ..
111 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 ... 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0
112 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 ... 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0
113 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 ... 0 1 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0
114 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 ... 0 0 0 0 0 0 1
0 0 0 0 0 0 0 0 0 0 0 0 0 0
115 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 ... 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 1 0 0
```

```
[116 rows x 51 columns]
```

```
>>> pd.get_dummies(df['Glucose'])
```

```
    60 70 74 75 76 77 78 79 ... 131 134 138 139 152 196 199 201
0  0  1  0  0  0  0  0 ...  0  0  0  0  0  0  0  0
1  0  0  0  0  0  0  0  0 ...  0  0  0  0  0  0  0  0
```

```

2  0  0  0  0  0  0  0  0  0  ...  0  0  0  0  0  0  0  0
3  0  0  0  0  0  0  1  0  0  ...  0  0  0  0  0  0  0  0
4  0  0  0  0  0  0  0  0  0  ...  0  0  0  0  0  0  0  0
...
111 0  0  0  0  0  0  0  0  0  ...  0  0  0  0  0  0  0  0
112 0  0  0  0  0  0  0  0  0  ...  0  0  0  0  0  0  0  0
113 0  0  0  0  0  0  0  0  0  ...  0  0  0  0  0  0  0  0
114 0  0  0  0  0  0  0  0  0  ...  0  0  0  0  0  0  0  0
115 0  0  0  0  0  0  0  0  0  ...  0  0  1  0  0  0  0  0

```

[116 rows x 50 columns]

```
>>> df.iloc[2:50]
```

	Age	BMI	Glucose	Insulin	HOMA	Leptin	Adiponectin	Resistin	MCP.1
2	82	23.124670	91	4.498	1.009651	17.9393	22.432040	9.27715	554.697
1									
3	68	21.367521	77	3.226	0.612725	9.8827	7.169560	12.76600	928.220
1									
4	86	21.111111	92	3.549	0.805386	6.6994	4.819240	10.57635	773.920
1									
5	49	22.854458	92	3.226	0.732087	6.8317	13.679750	10.31760	530.410
1									
6	89	22.700000	77	4.690	0.890787	6.9640	5.589865	12.93610	1256.083
1									
7	76	23.800000	118	6.470	1.883201	4.3110	13.251320	5.10420	280.694
1									
8	73	22.000000	97	3.350	0.801543	4.4700	10.358725	6.28445	136.855
1									
9	75	23.000000	83	4.952	1.013839	17.1270	11.578990	7.09130	318.302
1									
10	34	21.470000	78	3.469	0.667436	14.5700	13.110000	6.92000	354.600
1									
11	29	23.010000	82	5.663	1.145436	35.5900	26.720000	4.58000	174.800
1									
12	25	22.860000	82	4.090	0.827271	20.4500	23.670000	5.14000	313.730
1									
13	24	18.670000	88	6.107	1.330000	8.8800	36.060000	6.85000	632.220
1									
14	38	23.340000	75	5.782	1.069670	15.2600	17.950000	9.35000	165.020
1									
15	44	20.760000	86	7.553	1.600000	14.0900	20.320000	7.64000	63.610
1									
16	47	22.030000	84	2.869	0.590000	26.6500	38.040000	3.32000	191.720

1										
17	61	32.038959	85	18.077	3.790144	30.7729	7.780255	13.68392	444.395	
1										
18	64	34.529723	95	4.427	1.037394	21.2117	5.462620	6.70188	252.449	
1										
19	32	36.512637	87	14.026	3.009980	49.3727	5.100000	17.10223	588.460	
1										
20	36	28.576676	86	4.345	0.921719	15.1248	8.600000	9.15390	534.224	
1										
21	34	31.975015	87	4.530	0.972138	28.7502	7.642760	5.62592	572.783	
1										
22	29	32.270788	84	5.810	1.203832	45.6196	6.209635	24.60330	904.981	
1										
23	35	30.276817	84	4.376	0.906707	39.2134	9.048185	16.43706	733.797	
1										
24	54	30.483158	90	5.537	1.229214	12.3310	9.731380	10.19299	1227.910	
1										
25	45	37.035608	83	6.760	1.383997	39.9802	4.617125	8.70448	586.173	
1										
26	50	38.578759	106	6.703	1.752611	46.6401	4.667645	11.78388	887.160	
1										
27	66	31.446541	90	9.245	2.052390	45.9624	10.355260	23.38190	1102.110	
1										
28	35	35.250761	90	6.817	1.513374	50.6094	6.966895	22.03703	667.928	
1										
29	36	34.174890	80	6.590	1.300427	10.2809	5.065915	15.72187	581.313	
1										
30	66	36.212279	101	15.533	3.869788	74.7069	7.539550	22.32024	864.968	
1										
31	53	36.790166	101	10.175	2.534932	27.1841	20.030000	10.26309	695.754	
1										
32	28	35.855815	87	8.576	1.840410	68.5102	4.794200	21.44366	358.624	
1										
33	43	34.422174	89	23.194	5.091856	31.2128	8.300955	6.71026	960.246	
1										
34	51	27.688778	77	3.855	0.732193	20.0920	3.192090	10.37518	473.859	
1										
35	67	29.606767	79	5.819	1.133929	21.9033	2.194280	4.20750	585.307	
1										
36	66	31.238590	82	4.181	0.845677	16.2247	4.267105	3.29175	634.602	
1										
37	69	35.092702	101	5.646	1.406607	83.4821	6.796985	82.10000	263.499	
1										
38	60	26.349292	103	5.138	1.305395	24.2998	2.194280	20.25350	378.996	

```

1
39 77 35.587929    76  3.881 0.727558 21.7863    8.125550 17.26150 618.272
1
40 76 29.218408    83  5.376 1.100646 28.5620    7.369960 8.04375 698.789
1
41 76 27.200000    94 14.070 3.262364 35.8910    9.346630 8.41560 377.227
1
42 75 27.300000    85  5.197 1.089638 10.3900    9.000805 7.57670 335.393
1
43 69 32.500000    93  5.430 1.245642 15.1450    11.787960 11.78796 270.142
1
44 71 30.300000   102  8.340 2.098344 56.5020    8.130000 4.29890 200.976
1
45 66 27.700000    90  6.042 1.341324 24.8460    7.652055 6.70520 225.880
1
46 75 25.700000    94  8.079 1.873251 65.9260    3.741220 4.49685 206.802
1
47 78 25.300000    60  3.508 0.519184  6.6330    10.567295 4.66380 209.749
1
48 69 29.400000    89 10.704 2.349885 45.2720    8.286300 4.53000 215.769
1
49 85 26.600000    96  4.462 1.056602  7.8500    7.931700 9.61350 232.006
1

```

```
>>>
```

```
>>> print(pd.get_dummies(df['Glucose']))
```

```

    60  70  74  75  76  77  78  79  80  82  83  84  85  86  \
0    0   1   0   0   0   0   0   0   0   0   0   0   0   0
1    0   0   0   0   0   0   0   0   0   0   0   0   0   0
2    0   0   0   0   0   0   0   0   0   0   0   0   0   0
3    0   0   0   0   0   1   0   0   0   0   0   0   0   0
4    0   0   0   0   0   0   0   0   0   0   0   0   0   0
...
111  0   0   0   0   0   0   0   0   0   0   0   0   0   0
112  0   0   0   0   0   0   0   0   0   0   0   0   0   0
113  0   0   0   0   0   0   0   0   0   0   0   0   0   0
114  0   0   0   0   0   0   0   0   0   1   0   0   0   0
115  0   0   0   0   0   0   0   0   0   0   0   0   0   0

    87  88  89  90  91  92  93  94  95  96  97  98  99  100  \
0    0   0   0   0   0   0   0   0   0   0   0   0   0   0
1    0   0   0   0   0   1   0   0   0   0   0   0   0   0
2    0   0   0   0   1   0   0   0   0   0   0   0   0   0
3    0   0   0   0   0   0   0   0   0   0   0   0   0   0
4    0   0   0   0   0   1   0   0   0   0   0   0   0   0

```

```

.. ... ..
111 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0
112 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1
113 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0
114 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
115 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

```

```

      101 102 103 104 105 106 108 110 112 114 116 118 119 128 \
0     0 0 0 0 0 0 0 0 0 0 0 0 0 0
1     0 0 0 0 0 0 0 0 0 0 0 0 0 0
2     0 0 0 0 0 0 0 0 0 0 0 0 0 0
3     0 0 0 0 0 0 0 0 0 0 0 0 0 0
4     0 0 0 0 0 0 0 0 0 0 0 0 0 0

```

```

.. ... ..
111 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
112 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
113 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
114 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
115 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

```

```

      131 134 138 139 152 196 199 201
0     0 0 0 0 0 0 0 0
1     0 0 0 0 0 0 0 0
2     0 0 0 0 0 0 0 0
3     0 0 0 0 0 0 0 0
4     0 0 0 0 0 0 0 0

```

```

.. ... ..
111 0 0 0 0 0 0 0 0
112 0 0 0 0 0 0 0 0
113 0 0 0 0 0 0 0 0
114 0 0 0 0 0 0 0 0
115 0 0 1 0 0 0 0 0

```

[116 rows x 50 columns]

>>>