```
import seaborn as sns
print(sns.get_dataset_names())
```

```
['anagrams', 'anscombe', 'attention', 'brain_networks', 'car_crashes', 'diamonds', 'dots', 'dowjones', 'exercise', 'flights', 'fmri', 'g
```

```
df=sns.load_dataset('car_crashes')
df
```

19	15.1	5.738	4.530	13.137	12.684	661.88	96
20	12.5	4.250	4.000	8.875	12.375	1048.78	192
21	8.2	1.886	2.870	7.134	6.560	1011.14	135
22	14.1	3.384	3.948	13.395	10.857	1110.61	152
23	9.6	2.208	2.784	8.448	8.448	777.18	133
24	17.6	2.640	5.456	1.760	17.600	896.07	155
25	16.1	6.923	5.474	14.812	13.524	790.32	144
26	21.4	8.346	9.416	17.976	18.190	816.21	85
27	14.9	1.937	5.215	13.857	13.410	732.28	114
28	14.7	5.439	4.704	13.965	14.553	1029.87	138
29	11.6	4.060	3.480	10.092	9.628	746.54	120
30	11.2	1.792	3.136	9.632	8.736	1301.52	159
31	18.4	3.496	4.968	12.328	18.032	869.85	120

```
x=df["total"].values
y=df["alcohol"].values
z=df["speeding"].values
```

34	23.9	5.497	10.038	23.661	20.554	688.75	109

```
x
```

```
array([18.8, 18.1, 18.6, 22.4, 12. , 13.6, 10.8, 16.2,  5.9, 17.9, 15.6,
       17.5, 15.3, 12.8, 14.5, 15.7, 17.8, 21.4, 20.5, 15.1, 12.5,  8.2,
       14.1,  9.6, 17.6, 16.1, 21.4, 14.9, 14.7, 11.6, 11.2, 18.4, 12.3,
       16.8, 23.9, 14.1, 19.9, 12.8, 18.2, 11.1, 23.9, 19.4, 19.5, 19.4,
       11.3, 13.6, 12.7, 10.6, 23.8, 13.8, 17.4])
```

39	11.1	3.774	4.218	10.212	8.769	1148.99	148

```
y
```

```
array([ 5.64 ,  4.525,  5.208,  5.824,  3.36 ,  3.808,  3.888,  4.86 ,
        1.593,  5.191,  3.9  ,  7.175,  4.437,  4.352,  4.205,  3.925,
        4.272,  4.922,  6.765,  4.53 ,  4.   ,  2.87 ,  3.948,  2.784,
        5.456,  5.474,  9.416,  5.215,  4.704,  3.48 ,  3.136,  4.968,
        3.567,  5.208, 10.038,  4.794,  5.771,  3.328,  5.642,  4.218,
        9.799,  6.402,  5.655,  7.372,  1.808,  4.08 ,  3.429,  3.498,
        6.664,  4.554,  5.568])
```

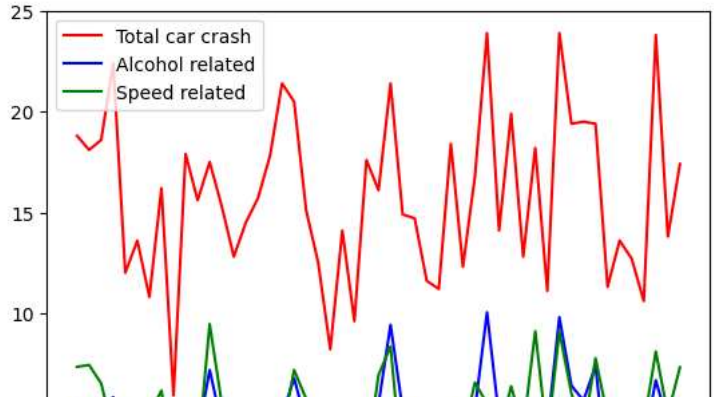
43	13.6	4.080	4.080	13.056	12.920	716.20	109

```
z
```

```
array([7.332, 7.421, 6.51 , 4.032, 4.2  , 5.032, 4.968, 6.156, 2.006,
       3.759, 2.964, 9.45 , 5.508, 4.608, 3.625, 2.669, 4.806, 4.066,
       7.175, 5.738, 4.25 , 1.886, 3.384, 2.208, 2.64 , 6.923, 8.346,
       1.937, 5.439, 4.06 , 1.792, 3.496, 3.936, 6.552, 5.497, 3.948,
       6.368, 4.224, 9.1  , 3.774, 9.082, 6.014, 4.095, 7.76 , 4.859,
       4.08 , 2.413, 4.452, 8.092, 4.968, 7.308])
```

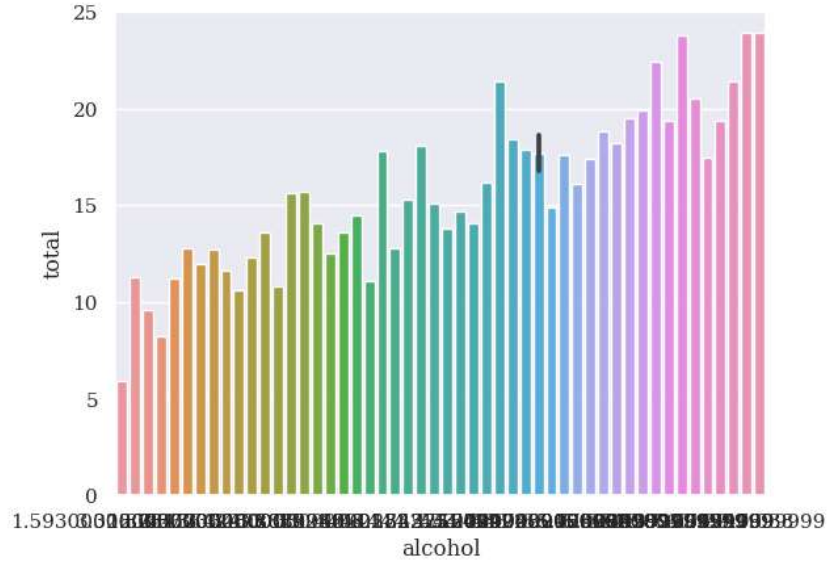
this diagram is showing alcohol and speed related car crashes

```
import matplotlib.pyplot as plt

plt.figure()
plt.plot(x,label='Total car crash',color='red')
plt.plot(y,label='Alcohol related', color = 'blue')
plt.plot(z,label='Speed related',color='green')
plt.legend()
sns.set()
#sns.set(style='whitegrid')
sns.set_style('darkgrid')
sns.set(font='serif')
plt.show()
```




```
sns.barplot(x='alcohol',y='total',data=df)
```

```
<Axes: xlabel='alcohol', ylabel='total'>
```




```
p=df['speeding'].values
q=df['not_distracted'].values
```

```
p
```

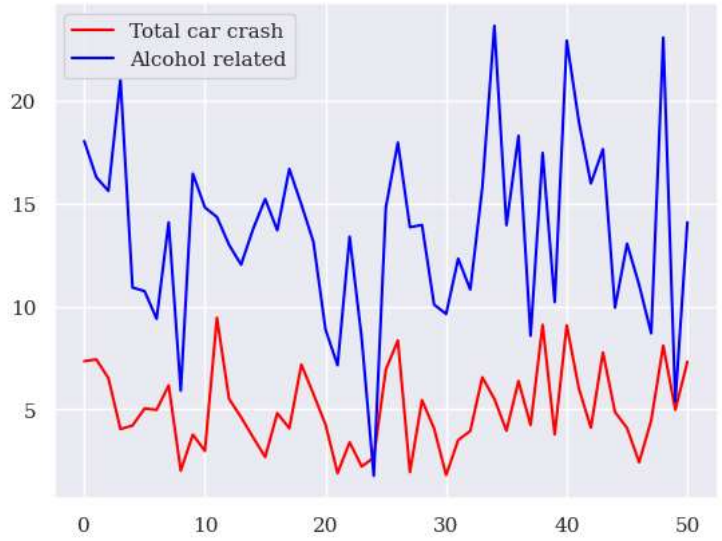
```
array([7.332, 7.421, 6.51 , 4.032, 4.2  , 5.032, 4.968, 6.156, 2.006,
       3.759, 2.964, 9.45 , 5.508, 4.608, 3.625, 2.669, 4.806, 4.066,
       7.175, 5.738, 4.25 , 1.886, 3.384, 2.208, 2.64 , 6.923, 8.346,
       1.937, 5.439, 4.06 , 1.792, 3.496, 3.936, 6.552, 5.497, 3.948,
       6.368, 4.224, 9.1  , 3.774, 9.082, 6.014, 4.095, 7.76 , 4.859,
       4.08 , 2.413, 4.452, 8.092, 4.968, 7.308])
```

```
q
```

```
array([18.048, 16.29 , 15.624, 21.056, 10.92 , 10.744,  9.396, 14.094,
        5.9  , 16.468, 14.82 , 14.35 , 13.005, 12.032, 13.775, 15.229,
       13.706, 16.692, 14.965, 13.137,  8.875,  7.134, 13.395,  8.448,
        1.76 , 14.812, 17.976, 13.857, 13.965, 10.092,  9.632, 12.328,
       10.824, 15.792, 23.661, 13.959, 18.308,  8.576, 17.472, 10.212,
       22.944, 19.012, 15.99 , 17.654,  9.944, 13.056, 11.049,  8.692,
       23.086,  5.382, 14.094])
```

```
plt.figure()
plt.plot(p,label='Total car crash',color='red')
plt.plot(q,label='Alcohol related', color = 'blue')
plt.legend()
sns.set()
#sns.set(style='whitegrid')
sns.set_style('darkgrid')
```

```
sns.set(font='serif')
plt.show()
```

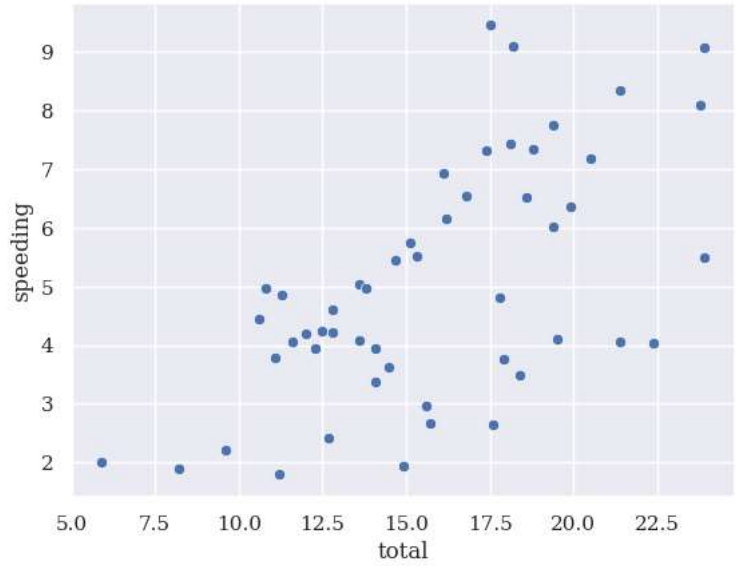



```
df.head(5)
```

	total	speeding	alcohol	not_distracted	no_previous	ins_premium	ins_losses
0	18.8	7.332	5.640	18.048	15.040	784.55	145.08
1	18.1	7.421	4.525	16.290	17.014	1053.48	133.93
2	18.6	6.510	5.208	15.624	17.856	899.47	110.35
3	22.4	4.032	5.824	21.056	21.280	827.34	142.39
4	12.0	4.200	3.360	10.920	10.680	878.41	165.63

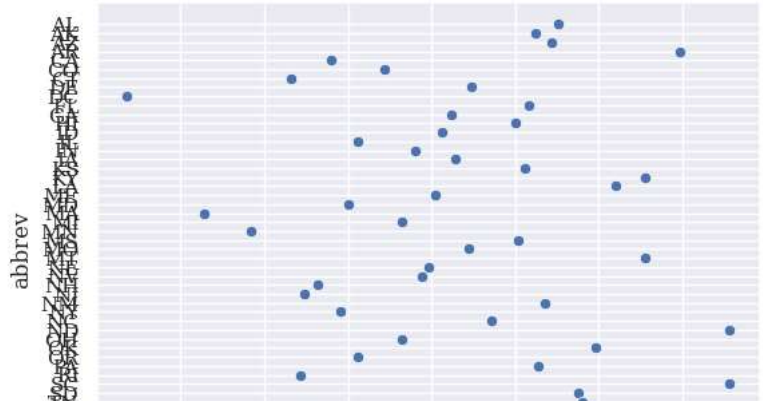
```
sns.scatterplot(x="total",y="speeding", data = df)
```

```
<Axes: xlabel='total', ylabel='speeding'>
```



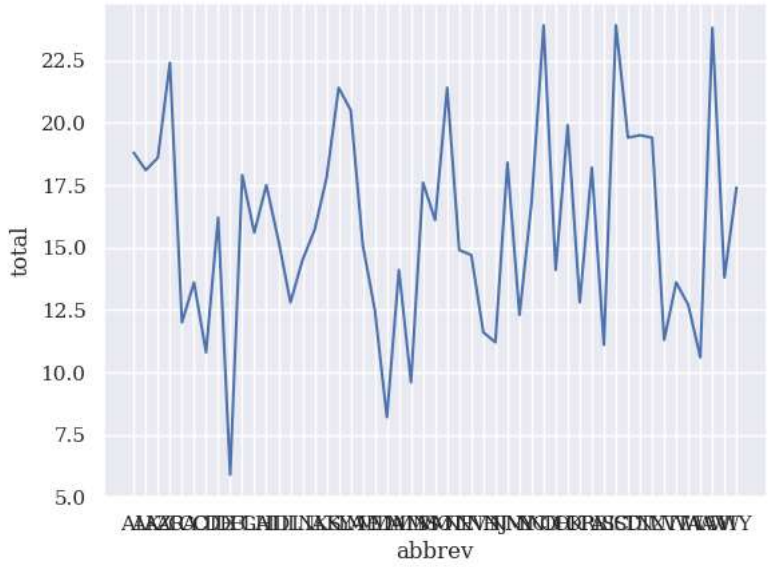

```
sns.scatterplot(x="total",y="abbrev",data=df)
```

```
<Axes: xlabel='total', ylabel='abbrev'>
```




```
sns.lineplot(x="abbrev",y="total",data=df,ci=None)
```

```
<ipython-input-17-cdd4e2789f8c>:1: FutureWarning:

The `ci` parameter is deprecated. Use `errorbar=None` for the same effect.

  sns.lineplot(x="abbrev",y="total",data=df,ci=None)
<Axes: xlabel='abbrev', ylabel='total'>
```

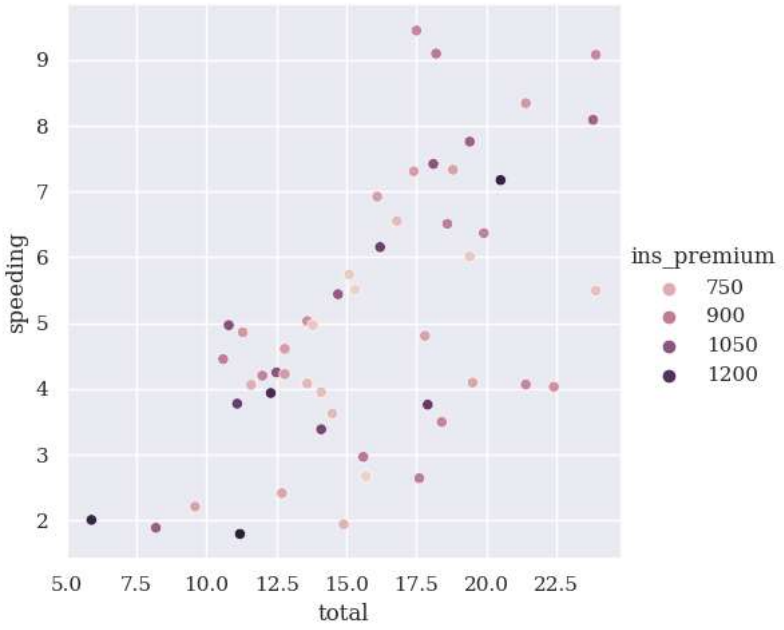



```
sns.distplot(df["speeding"])
```

```
<ipython-input-18-8ecb7fd34a3c>:1: UserWarning:

`distplot` is a deprecated function and will be removed in seaborn v0.14.0.

Please adapt your code to use either `displot` (a figure-level function with
similar flexibility) or `histplot` (an axes-level function for histograms).

For a guide to updating your code to use the new functions, please see
https://gist.github.com/mwaskom/de44147ed2974457ad6372750bbe5751

  sns.distplot(df["speeding"])
```

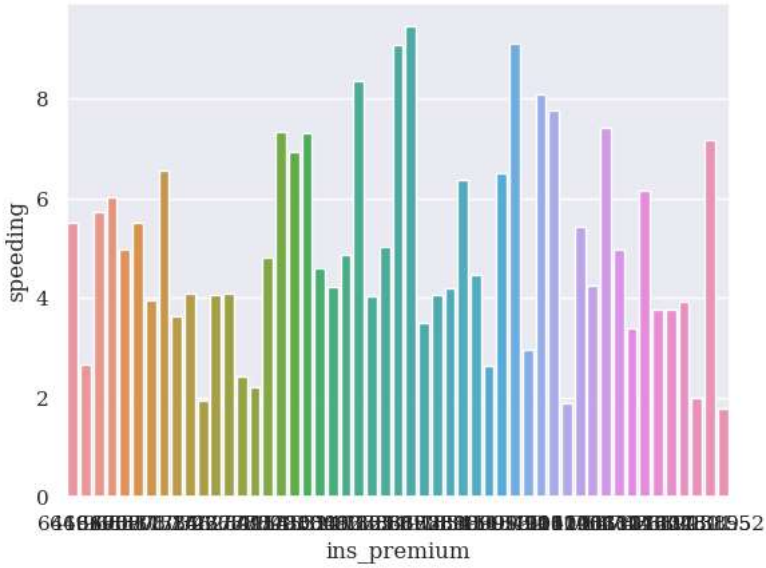
```
sns.relplot(x="total",y="speeding",data=df,hue="ins_premium")
```

```
<seaborn.axisgrid.FacetGrid at 0x7dd416c3b550>
```



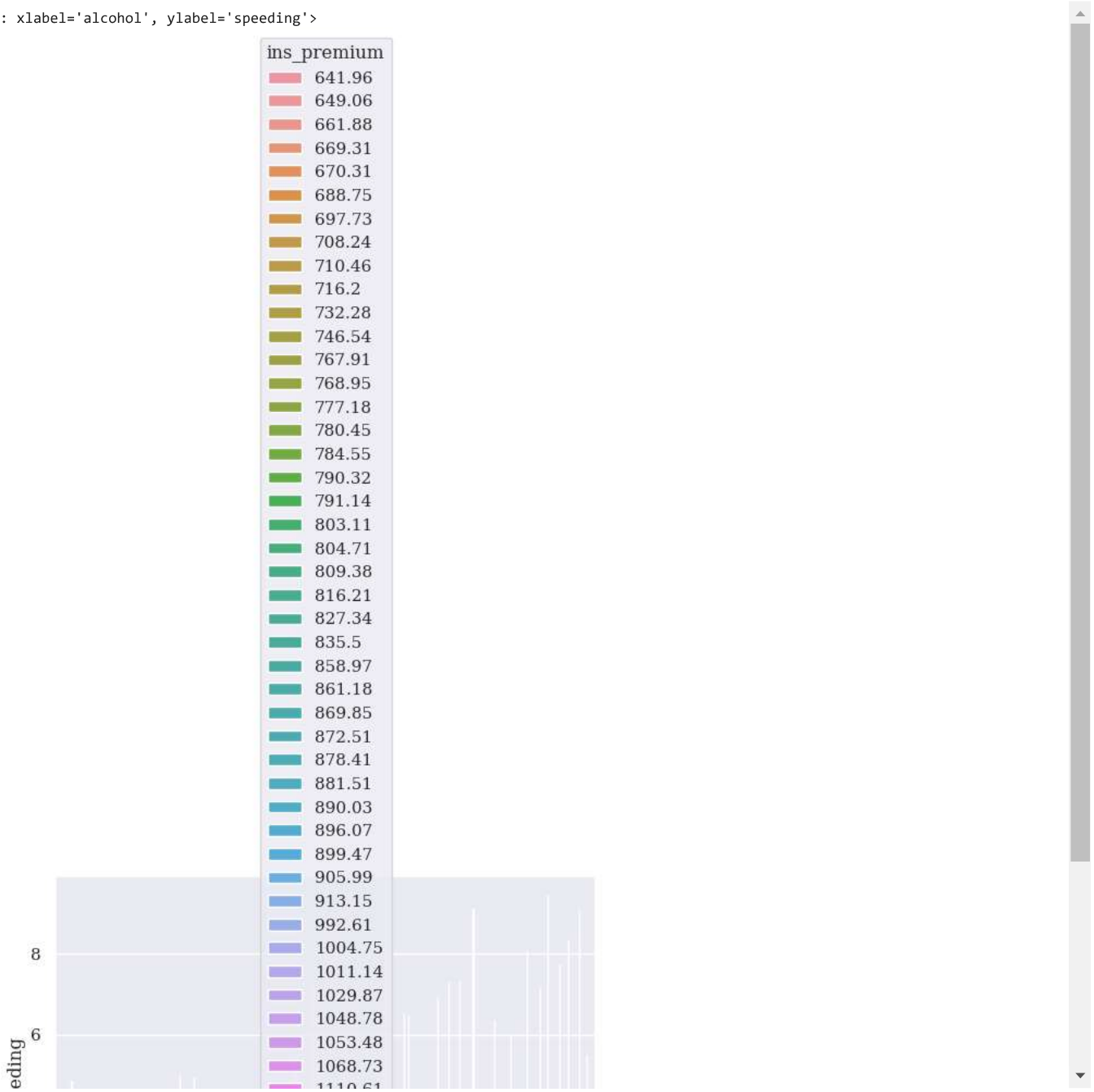

```
sns.barplot(data=df,x="ins_premium",y="speeding",ci=None)
```

```
<ipython-input-23-0f3f8f356baf>:1: FutureWarning:

The `ci` parameter is deprecated. Use `errorbar=None` for the same effect.

  sns.barplot(data=df,x="ins_premium",y="speeding",ci=None)
<Axes: xlabel='ins_premium', ylabel='speeding'>
```



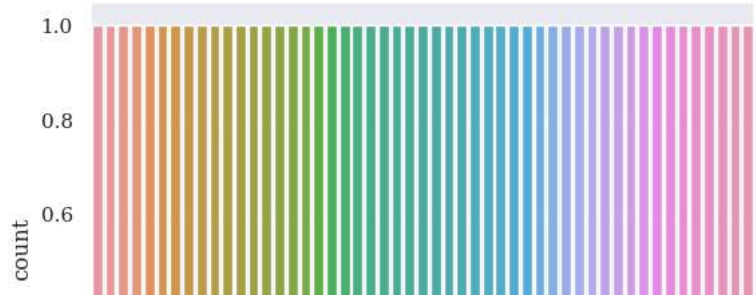

```
sns.barplot(data=df,x="alcohol",y="speeding",hue="ins_premium")
```

```
<Axes: xlabel='alcohol', ylabel='speeding'>
```



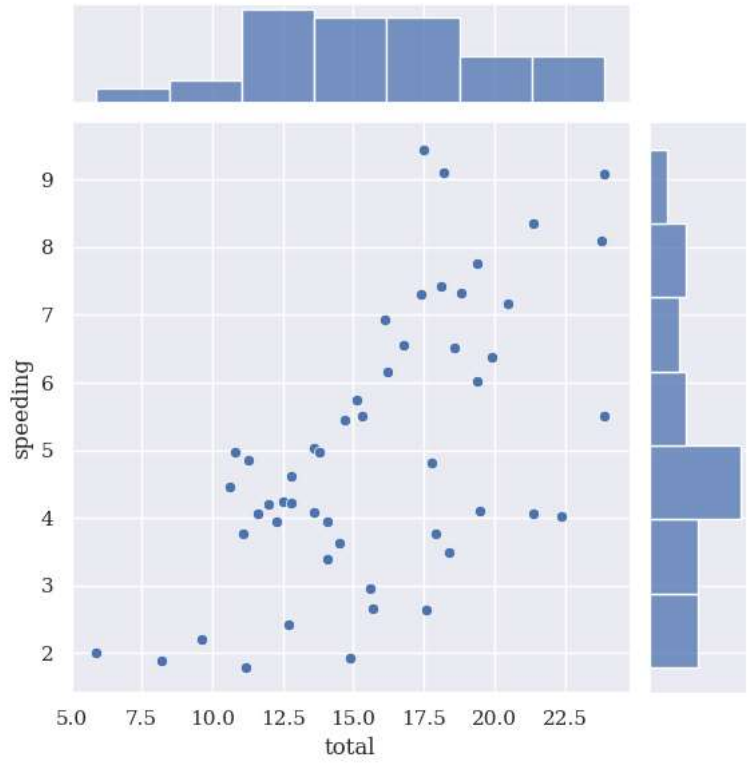

```
sns.countplot(x="abbrev",data=df)
```

```
<Axes: xlabel='abbrev', ylabel='count'>
```



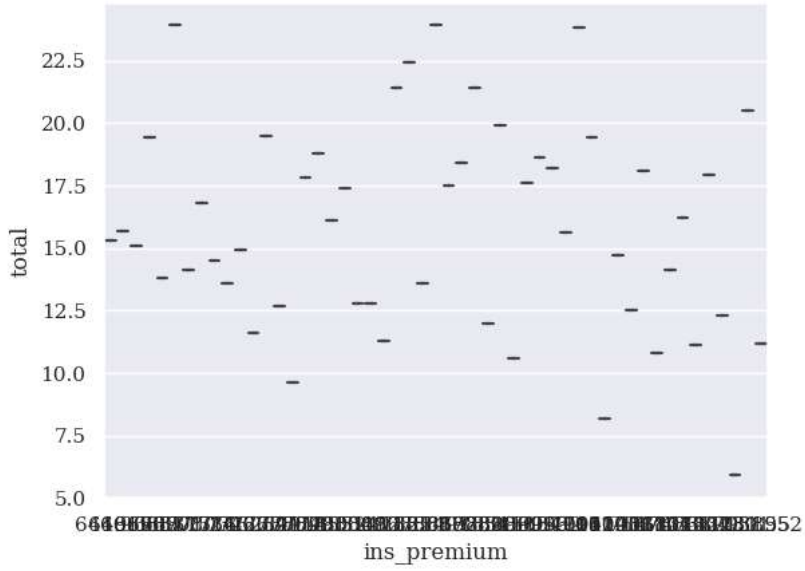

```
sns.jointplot(x="total",y="speeding",data=df)
```

```
<seaborn.axisgrid.JointGrid at 0x7dd4116ab250>
```




```
sns.boxplot(x="ins_premium",y="total",data=df)
```

```
<Axes: xlabel='ins_premium', ylabel='total'>
```



```
corr = df.corr()
corr
```

```
<ipython-input-32-4381f08f6434>:1: FutureWarning: The default value of numeric_only in DataFrame.corr is deprecated. In a future versior
  corr = df.corr()
```

	total	speeding	alcohol	not_distracted	no_previous	ins_premium	ins_losses
total	1.000000	0.611548	0.852613	0.827560	0.956179	-0.199702	-0.036011
speeding	0.611548	1.000000	0.669719	0.588010	0.571976	-0.077675	-0.065928
alcohol	0.852613	0.669719	1.000000	0.732816	0.783520	-0.170612	-0.112547
not_distracted	0.827560	0.588010	0.732816	1.000000	0.747307	-0.174856	-0.075970
no_previous	0.956179	0.571976	0.783520	0.747307	1.000000	-0.156895	-0.006359
ins_premium	-0.199702	-0.077675	-0.170612	-0.174856	-0.156895	1.000000	0.623116
ins_losses	-0.036011	-0.065928	-0.112547	-0.075970	-0.006359	0.623116	1.000000

```
sns.heatmap(corr,annot=True,cmap="YlGnBu")
```

```
<Axes: >
```