```
import seaborn as sns
import matplotlib.pyplot as plt
print(sns.get_dataset_names())
```

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

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

| | total | speeding | alcohol | not_distracted | no_previous | ins_premium | ins_losses | abbrev |
|---|---|---|---|---|---|---|---|---|
| 0 | 18.8 | 7.332 | 5.640 | 18.048 | 15.040 | 784.55 | 145.08 | AL |
| 1 | 18.1 | 7.421 | 4.525 | 16.290 | 17.014 | 1053.48 | 133.93 | AK |
| 2 | 18.6 | 6.510 | 5.208 | 15.624 | 17.856 | 899.47 | 110.35 | AZ |
| 3 | 22.4 | 4.032 | 5.824 | 21.056 | 21.280 | 827.34 | 142.39 | AR |
| 4 | 12.0 | 4.200 | 3.360 | 10.920 | 10.680 | 878.41 | 165.63 | CA |
| 5 | 13.6 | 5.032 | 3.808 | 10.744 | 12.920 | 835.50 | 139.91 | CO |
| 6 | 10.8 | 4.968 | 3.888 | 9.396 | 8.856 | 1068.73 | 167.02 | CT |
| 7 | 16.2 | 6.156 | 4.860 | 14.094 | 16.038 | 1137.87 | 151.48 | DE |
| 8 | 5.9 | 2.006 | 1.593 | 5.900 | 5.900 | 1273.89 | 136.05 | DC |
| 9 | 17.9 | 3.759 | 5.191 | 16.468 | 16.826 | 1160.13 | 144.18 | FL |
| 10 | 15.6 | 2.964 | 3.900 | 14.820 | 14.508 | 913.15 | 142.80 | GA |
| 11 | 17.5 | 9.450 | 7.175 | 14.350 | 15.225 | 861.18 | 120.92 | HI |
| 12 | 15.3 | 5.508 | 4.437 | 13.005 | 14.994 | 641.96 | 82.75 | ID |
| 13 | 12.8 | 4.608 | 4.352 | 12.032 | 12.288 | 803.11 | 139.15 | IL |
| 14 | 14.5 | 3.625 | 4.205 | 13.775 | 13.775 | 710.46 | 108.92 | IN |
| 15 | 15.7 | 2.669 | 3.925 | 15.229 | 13.659 | 649.06 | 114.47 | IA |
| 16 | 17.8 | 4.806 | 4.272 | 13.706 | 15.130 | 780.45 | 133.80 | KS |
| 17 | 21.4 | 4.066 | 4.922 | 16.692 | 16.264 | 872.51 | 137.13 | KY |
| 18 | 20.5 | 7.175 | 6.765 | 14.965 | 20.090 | 1281.55 | 194.78 | LA |
| 19 | 15.1 | 5.738 | 4.530 | 13.137 | 12.684 | 661.88 | 96.57 | ME |
| 20 | 12.5 | 4.250 | 4.000 | 8.875 | 12.375 | 1048.78 | 192.70 | MD |
| 21 | 8.2 | 1.886 | 2.870 | 7.134 | 6.560 | 1011.14 | 135.63 | MA |
| 22 | 14.1 | 3.384 | 3.948 | 13.395 | 10.857 | 1110.61 | 152.26 | MI |
| 23 | 9.6 | 2.208 | 2.784 | 8.448 | 8.448 | 777.18 | 133.35 | MN |
| 24 | 17.6 | 2.640 | 5.456 | 1.760 | 17.600 | 896.07 | 155.77 | MS |
| 25 | 16.1 | 6.923 | 5.474 | 14.812 | 13.524 | 790.32 | 144.45 | MO |
| 26 | 21.4 | 8.346 | 9.416 | 17.976 | 18.190 | 816.21 | 85.15 | MT |
| 27 | 14.9 | 1.937 | 5.215 | 13.857 | 13.410 | 732.28 | 114.82 | NE |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 28 | 14.7 | 5.439 | 4.704 | 13.965 | 14.553 | 1029.87 | 138.71 | NV |

```
df.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 51 entries, 0 to 50
Data columns (total 8 columns):
 #   Column          Non-Null Count  Dtype  
---  ------          --------------  -----  
 0   total           51 non-null     float64
 1   speeding        51 non-null     float64
 2   alcohol         51 non-null     float64
 3   not_distracted  51 non-null     float64
 4   no_previous     51 non-null     float64
 5   ins_premium     51 non-null     float64
 6   ins_losses      51 non-null     float64
 7   abbrev          51 non-null     object 
dtypes: float64(7), object(1)
memory usage: 3.3+ KB
```

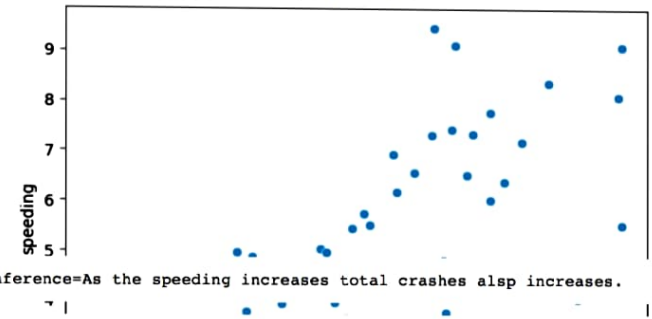
| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 39 | 11.1 | 3.774 | 4.218 | 10.212 | 8.769 | 1148.99 | 148.58 | HI |

```
df.head()
```

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

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

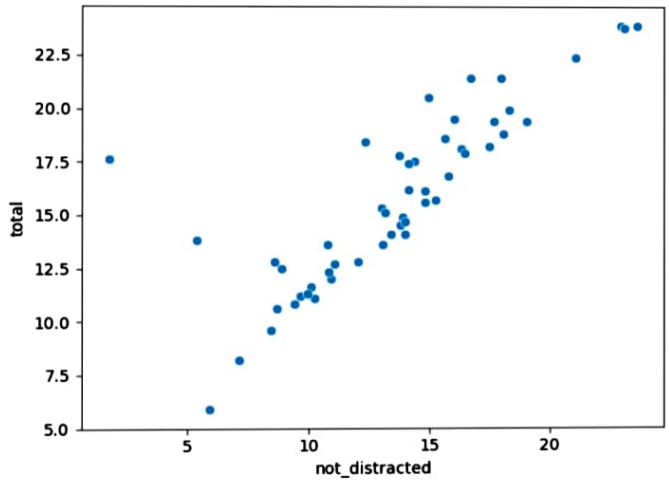
```
<Axes: xlabel='total', ylabel='speeding'>
```




```
##inference=As the speeding increases total crashes alsp increases.
```

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

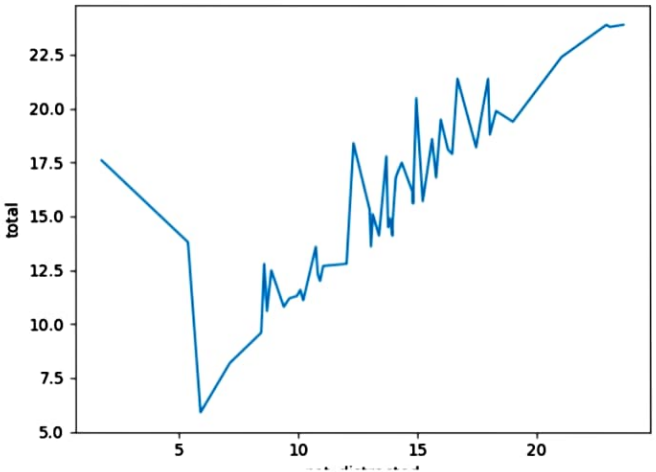
```
<Axes: xlabel='not_distracted', ylabel='total'>
```




4-5/12

```
sns.lineplot(x="not_distracted",y="total",data=df)
```

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






```
#Distribution plot
sns.distplot(df["alcohol"])
```

```
<ipython-input-18-ea3ed2c1e65c>:2: 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["alcohol"])
<Axes: xlabel='alcohol', ylabel='Density'>
```

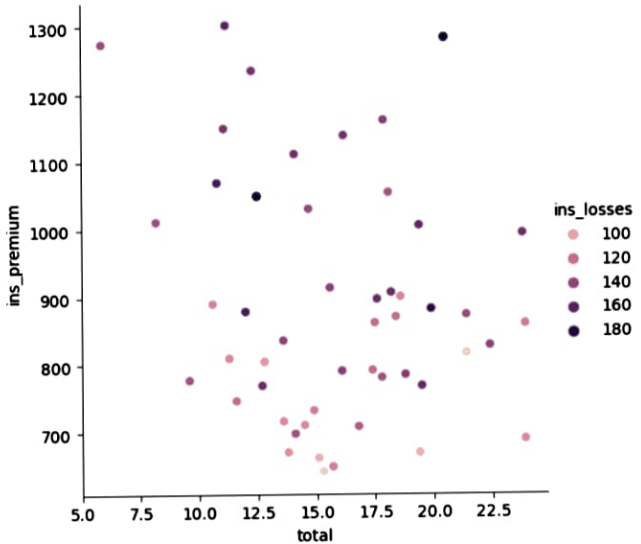

```
sns.distplot(df["ins_premium"])
```

```
<ipython-input-19-8677a75b2d6c>:1: UserWarning:

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

```
#Relation plot
sns.relplot(x="total",y="ins_premium",data=df,hue="ins_losses")
```

```
<seaborn.axisgrid.FacetGrid at 0x7b86edc9df00>
```




```
df["abbrev"].value_counts()
```

```
AL    1
PA    1
NV    1
NH    1
NJ    1
NM    1
NY    1
NC    1
ND    1
OH    1
```

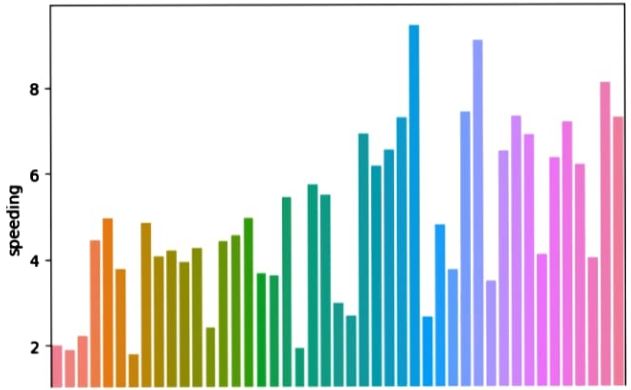
```
OK    1
OR    1
RI    1
MT    1
SC    1
SD    1
TN    1
TX    1
UT    1
VT    1
VA    1
WA    1
WV    1
WI    1
NE    1
MO    1
AK    1
ID    1
AZ    1
AR    1
CA    1
CO    1
CT    1
DE    1
DC    1
FL    1
GA    1
HI    1
IL    1
MS    1
IN    1
IA    1
KS    1
KY    1
LA    1
ME    1
MD    1
MA    1
MI    1
MN    1
WY    1
Name: abbrev, dtype: int64
```

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

```
<ipython-input-27-45580ba4c45b>:1: FutureWarning:

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

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




```
sns.barplot(data=df,x="total",y="ins_losses",ci=None)
```

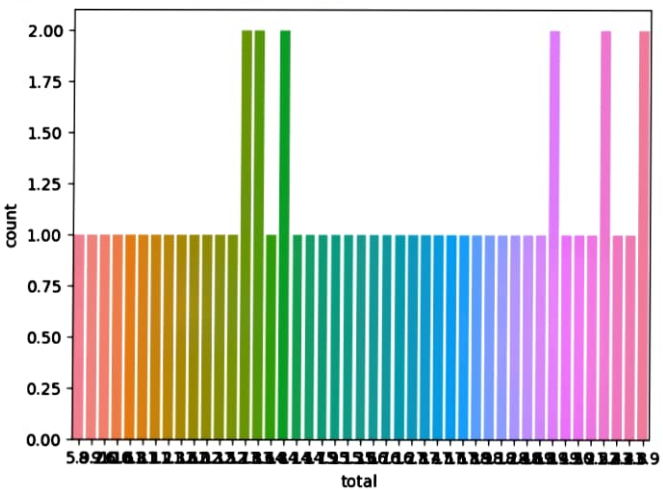
```
<ipython-input-29-b6fe4272f1e7>:1: FutureWarning:

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

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

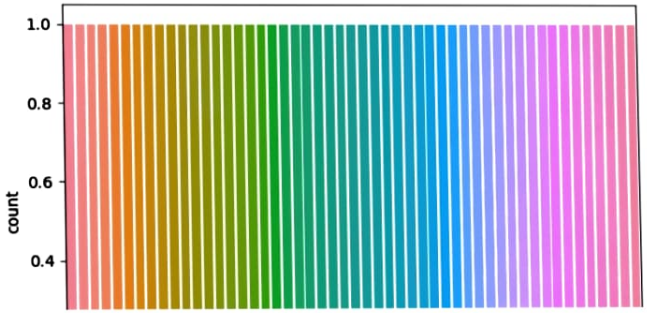

```
#Count plot
sns.countplot(x="total",data=df)
```

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



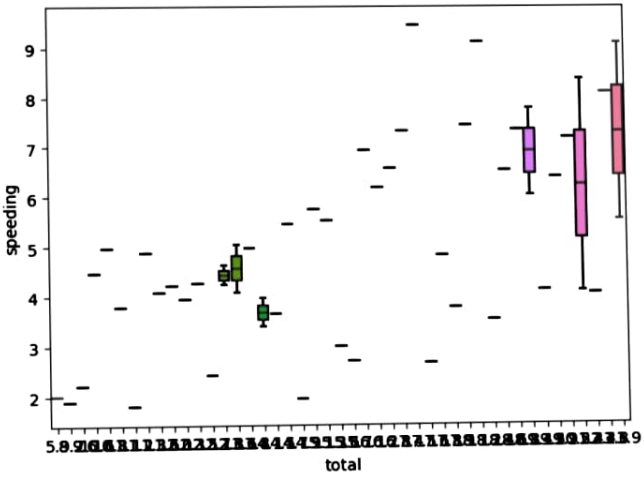

```
sns.countplot(x="ins_premium",data=df)
```

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




```
#Box plot
sns.boxplot(x="total",y="speeding",data=df)
```

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




```
print("Thank YOU")
```

```
Thank YOU
```

✓ 0s completed at 14:03