```
import seaborn as sns
print(sns.get_dataset_names())
     ['anagrams', 'anscombe', 'attention', 'brain_networks', 'car_crashes', 'diamonds', 'dots', 'dowjones', 'exercise', 'flights', 'fmri', '§
df1 = sns.load_dataset("car_crashes")
df1.head()
₽
        total speeding alcohol not_distracted no_previous ins_premium ins_losses abbre
     0
          18.8
                   7.332
                            5.640
                                           18.048
                                                        15.040
                                                                     784.55
                                                                                  145.08
                                                                                             Α
     1
          18.1
                   7.421
                            4.525
                                           16.290
                                                        17.014
                                                                     1053.48
                                                                                  133.93
                                                                                             Α
                   6.510
     2
          18.6
                            5.208
                                           15.624
                                                        17.856
                                                                     899.47
                                                                                  110.35
                                                                                             Α
          22.4
                   4.032
                            5.824
                                           21.056
                                                        21.280
                                                                     827.34
                                                                                  142.39
                                                                                             Α
```

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165 63

df1.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 speeding 51 non-null float64 float64 alcohol 51 non-null not\_distracted 51 non-null float64 3 4 no\_previous 51 non-null float64 ins\_premium 51 non-null float64 51 non-null ins\_losses float64 object abbrev 51 non-null

3 360

10 020

1በ ፍዪበ

4 200

dtypes: float64(7), object(1)

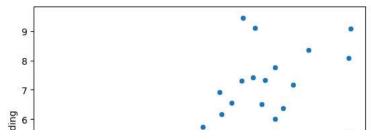
memory usage: 3.3+ KB

## df1.describe()

	total	speeding	alcohol	not_distracted	no_previous	ins_premium	ins_los
count	51.000000	51.000000	51.000000	51.000000	51.000000	51.000000	51.000
mean	15.790196	4.998196	4.886784	13.573176	14.004882	886.957647	134.493
std	4.122002	2.017747	1.729133	4.508977	3.764672	178.296285	24.835
min	5.900000	1.792000	1.593000	1.760000	5.900000	641.960000	82.750
25%	12.750000	3.766500	3.894000	10.478000	11.348000	768.430000	114.645
50%	15.600000	4.608000	4.554000	13.857000	13.775000	858.970000	136.050
75%	18.500000	6.439000	5.604000	16.140000	16.755000	1007.945000	151.870
, may	33 <b>0</b> UUUUU	Q /50000	1በ በՉՁበበበ	23 661000	21 280000	1301 520000	10/ 780

sns.scatterplot(x = "total", y = "speeding", data = df1)

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



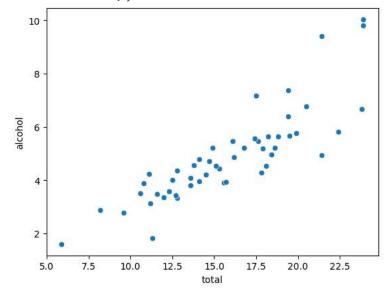
Inference from above plot:

as the value of speeding increases total no of accidents also increases from the plot we can say, total and speeding are directly proportional """

'\nInference from above plot:\nas the value of speeding increases total no of accidents also increases\nfrom the plot we c an say, total and speeding are directly proportional\n'

sns.scatterplot(x = "total", y = "alcohol", data = df1)

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



....

Inference from above plot:

as the value alcohol increases total no of accidents also increases from the plot we can say, total and alcohol are directly proportional

'\nInference from above plot:\nas the value alcohol increases total no of accidents also increases\nfrom the plot we can s ay, total and alcohol are directly proportional\n'

sns.lineplot(x = "total", y = "not\_distracted", data = df1, ci = None)

....

<ipython-input-49-f45d9713e6ef>:1: FutureWarning:

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

sns.lineplot(x = "total", y = "not\_distracted", data = df1, ci = None)
<Axes: xlabel='total', ylabel='not\_distracted'>



Inference from above plot:

from the plot we can say that there is a uniform increase in total as  $not\_distracted$  increases and at some points in the graph there are steep falls and rises

'\nInference from above plot:\nfrom the plot we can say that there is a uniform increase in total as not\_distracted increases\nand at some points in the graph there are steep falls and rises \n'

sns.distplot(df1["ins\_losses"])

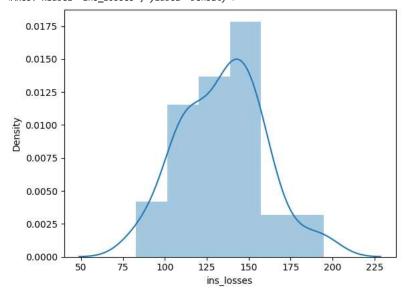
<ipython-input-51-878f4712043d>:1: UserWarning:

`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 <a href="https://gist.github.com/mwaskom/de44147ed2974457ad6372750bbe5751">https://gist.github.com/mwaskom/de44147ed2974457ad6372750bbe5751</a>

sns.distplot(df1["ins\_losses"])
<Axes: xlabel='ins\_losses', ylabel='Density'>



Inference from above plot:

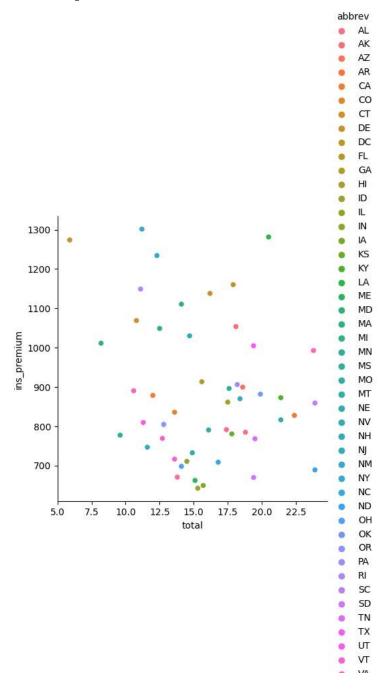
....

from the plot we can say, that the max values of ins\_losses lies between 125 and 150 or the mean of ins\_losses lies between 125 and 150 """

'\nInference from above plot:\nfrom the plot we can say, that the max values of ins\_losses lies between 125 and 150\nor the mean of ins\_losses lies between 125 and 150\n'

sns.relplot(x = "total", y = "ins\_premium", data = df1, hue = "abbrev")

<seaborn.axisgrid.FacetGrid at 0x7b5785dc1540>



Inference from above plot:

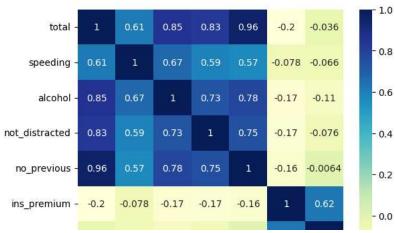
from the plot we can visualise how variables (total and ins\_premium) that are within a dataset(car\_crash) relate to each other on the basis or """

'\nInference from above plot:\nfrom the plot we can visualise how variables (total and ins\_premium) that are within a data  $set(car\_crash)$  relate to each other on the basis of abbrev\n'

```
corr = df1.corr()
from __future__ import annotations
sns.heatmap(corr, annot = True, cmap = "YlGnBu")
```

<ipython-input-55-c8da8aa328e1>:1: FutureWarning: The default value of numeric\_only in DataFrame.corr is deprecated. In a f
corr = df1.corr()

<Axes: >



....

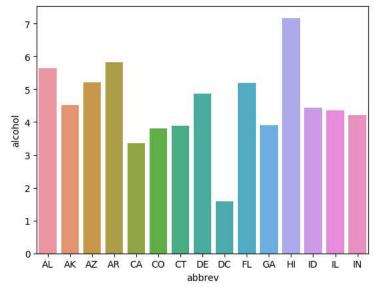
Inference from above plot:

from the plot we can say that total and no\_previous are highly dependent on each other and total and ins\_premium are not at all dependent on each other  $\frac{1}{2} \left( \frac{1}{2} \right) = \frac{1}{2} \left( \frac{1}{2} \right) \left( \frac{1}{2} \right$ 

'\nInference from above plot:\nfrom the plot we can say that total and no\_previous are highly dependent on each other \nan d total and ins\_premium are not at all dependent on each other\n'

sns.barplot(data = df1.head(15), x = "abbrev", y = "alcohol")

<Axes: xlabel='abbrev', ylabel='alcohol'>



....

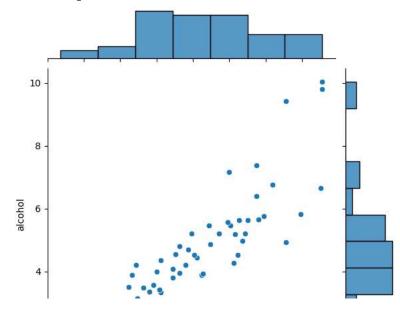
Inference from above plot:

from the plot we can say that from the starting 15 observations HI have the highest no of car crashes due to alcohol

'\nInference from above plot:\nfrom the plot we can say that from the starting 15 observations HI have the highest no of c ar crashes due to alcohol\n'

sns.jointplot(x = "total", y = "alcohol", data = df1)

<seaborn.axisgrid.JointGrid at 0x7b57849da110>



Inference from above plot: from the plot we can say, total and alcohol are directly proportional

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