## Jwalitha Nagireddy 21BCE9688

```
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', 'g

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     |
| 2  | 15.3  | 5.508    | 4.437   | 13.005         | 14.994      | 641.96      | 82.75      | ID     |
| 3  | 12.8  | 4.608    | 4.352   | 12.032         | 12.288      | 803.11      | 139.15     | IL     |

df.info()

<class 'pandas.core.frame.DataFrame'>
RangeIndex: 51 entries, 0 to 50

Data columns (total 8 columns):

| 2 (60601          | 0 001011113/1   |  |   |   |
|-------------------|---|--|---|---|
| Column            | Non-Null Count  | Dtype  |   |   |
|                   |   |  |   |   |
| total             | 51 non-null   | float64  |   |   |
| speeding          | 51 non-null   | float64  |   |   |
| alcohol           | 51 non-null   | float64  |   |   |
| not_distracted    | 51 non-null   | float64  |   |   |
| no_previous       | 51 non-null   | float64  |   |   |
| ins_premium       | 51 non-null   | float64  |   |   |
| ins_losses        | 51 non-null   | float64  |   |   |
| abbrev            | 51 non-null   | object   |   |   |
| pes: float64(7),  | object(1)   |  |   |   |
| ory usage: 3.3+ K | B   |  |   |   |
| 17.6 2.640        | 5.456   | 1.760  | 17.600  |   |
|                   | Column total speeding alcohol not_distracted no_previous ins_premium ins_losses abbrev pes: float64(7), ory usage: 3.3+ k | total 51 non-null speeding 51 non-null alcohol 51 non-null not_distracted 51 non-null no_previous 51 non-null ins_premium 51 non-null ins_losses 51 non-null abbrev 51 non-null opes: float64(7), object(1) ory usage: 3.3+ KB | Column Non-Null Count Dtype  total 51 non-null float64 speeding 51 non-null float64 not_distracted 51 non-null float64 no_previous 51 non-null float64 ins_premium 51 non-null float64 ins_losses 51 non-null float64 abbrev 51 non-null object pes: float64(7), object(1) pry usage: 3.3+ KB | Column Non-Null Count Dtype  total 51 non-null float64 speeding 51 non-null float64 alcohol 51 non-null float64 not_distracted 51 non-null float64 no_previous 51 non-null float64 ins_premium 51 non-null float64 ins_losses 51 non-null float64 abbrev 51 non-null object pes: float64(7), object(1) pry usage: 3.3+ KB |

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     |
|   |       |          |         |                | 0.010       |             |            |        |

896.07

155.77

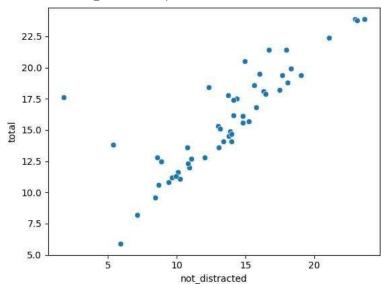
MS

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

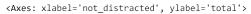


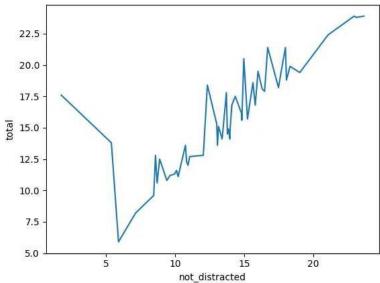
sns.scatterplot(x="not\_distracted",y="total",data=df)

<Axes: xlabel='not\_distracted', ylabel='total'>



sns.lineplot(x="not\_distracted",y="total",data=df)





sns.distplot(df["alcohol"])

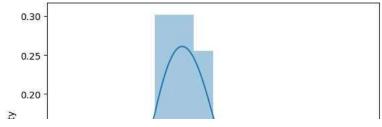
<ipython-input-8-281d56044cde>:1: UserWarning:

`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(df["alcohol"])
<Axes: xlabel='alcohol', ylabel='Density'>



sns.distplot(df["ins\_premium"])

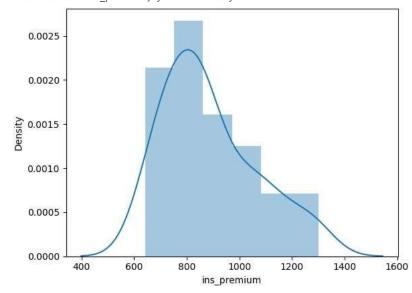
<ipython-input-9-8677a75b2d6c>:1: UserWarning:

`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  $\frac{\text{https://gist.github.com/mwaskom/de44147ed2974457ad6372750bbe5751}}{\text{https://gist.github.com/mwaskom/de44147ed2974457ad6372750bbe5751}}$ 

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



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

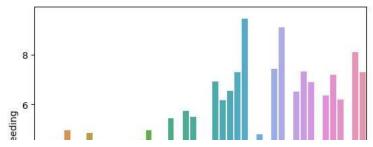
```
<seaborn.axisgrid.FacetGrid at 0x7f353ad68670>
         1300
        1200
         1100
df["abbrev"].value_counts()
     РΑ
          1
     NV
          1
     NH
          1
     NM
          1
     NY
     NC
     ND
           1
    ОН
          1
     ОК
     OR
     RΙ
          1
     МТ
           1
     SC
     SD
          1
     ΤN
          1
     ΤX
    UT
     VT
           1
     VA
     WV
          1
     WI
     МО
           1
     ΑK
     ID
     ΑZ
     AR
          1
     CA
           1
     CO
     СТ
          1
     DE
          1
     DC
     FL
     GΑ
          1
     ΗI
     ΙL
     MS
           1
     IN
     IΑ
     KS
           1
     ΚY
     LA
          1
     ME
          1
     MD
           1
     МΑ
           1
     ΜI
          1
     MN
          1
     WY
     Name: abbrev, dtype: int64
```

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

<ipython-input-12-45580ba4c45b>: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'>

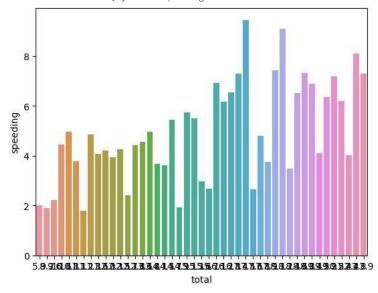


sns.barplot(data=df,x="total",y="speeding",ci=None)

<ipython-input-13-45580ba4c45b>: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)

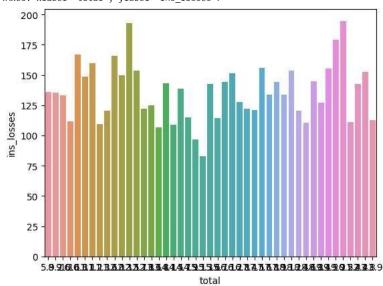
<ipython-input-14-b6fe4272f1e7>:1: FutureWarning:

The `ci` parameter is deprecated. Use `errorbar=None` for the same effect. sns.barplot(data=df,x="total",y="ins\_losses",ci=None)

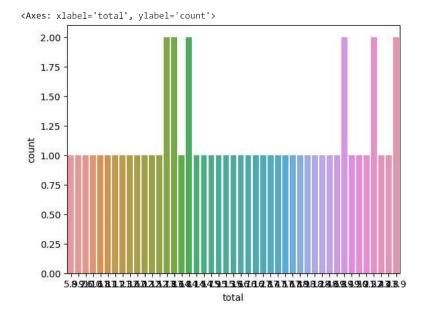
<ipython-input-15-b6fe4272f1e7>:1: FutureWarning:

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'>

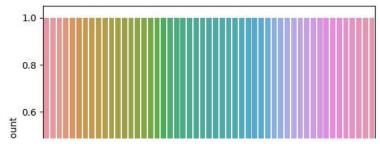


sns.countplot(x="total",data=df)



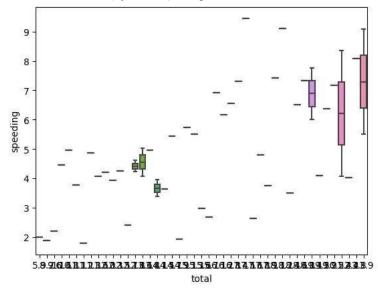
sns.countplot(x="ins premium",data=df)

<Axes: xlabel='ins\_premium', ylabel='count'>



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

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



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