Importing Neccesary Modules

```
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns
```

Loading Dataset

```
sns.get_dataset_names()
```

```
['anagrams',
 'anscombe',
 'attention',
 'brain_networks',
 'car_crashes',
 'diamonds',
 'dots',
 'dowjones',
 'exercise',
 'flights',
 'fmri',
 'geyser',
 'glue',
 'healthexp',
 'iris',
 'mpg',
 'penguins',
 'planets',
 'seaice',
 'taxis',
 'tips',
 'titanic']
```

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

```
df.shape
```

```
(51, 8)
```

Scatterplot

```
plt.subplots(figsize=(15,15))

plt.subplot(2,2,1)
sns.scatterplot(x = "ins_premium", y = "ins_losses", data = df, hue="speeding")

plt.subplot(2,2,2)
sns.scatterplot(x = "ins_premium", y = "ins_losses", data = df, hue="alcohol")

plt.subplot(2,2,3)
sns.scatterplot(x = "ins_premium", y = "ins_losses", data = df, hue="not_distracted")

plt.subplot(2,2,4)
sns.scatterplot(x = "ins_premium", y = "ins_losses", data = df, hue="no_previous")
```
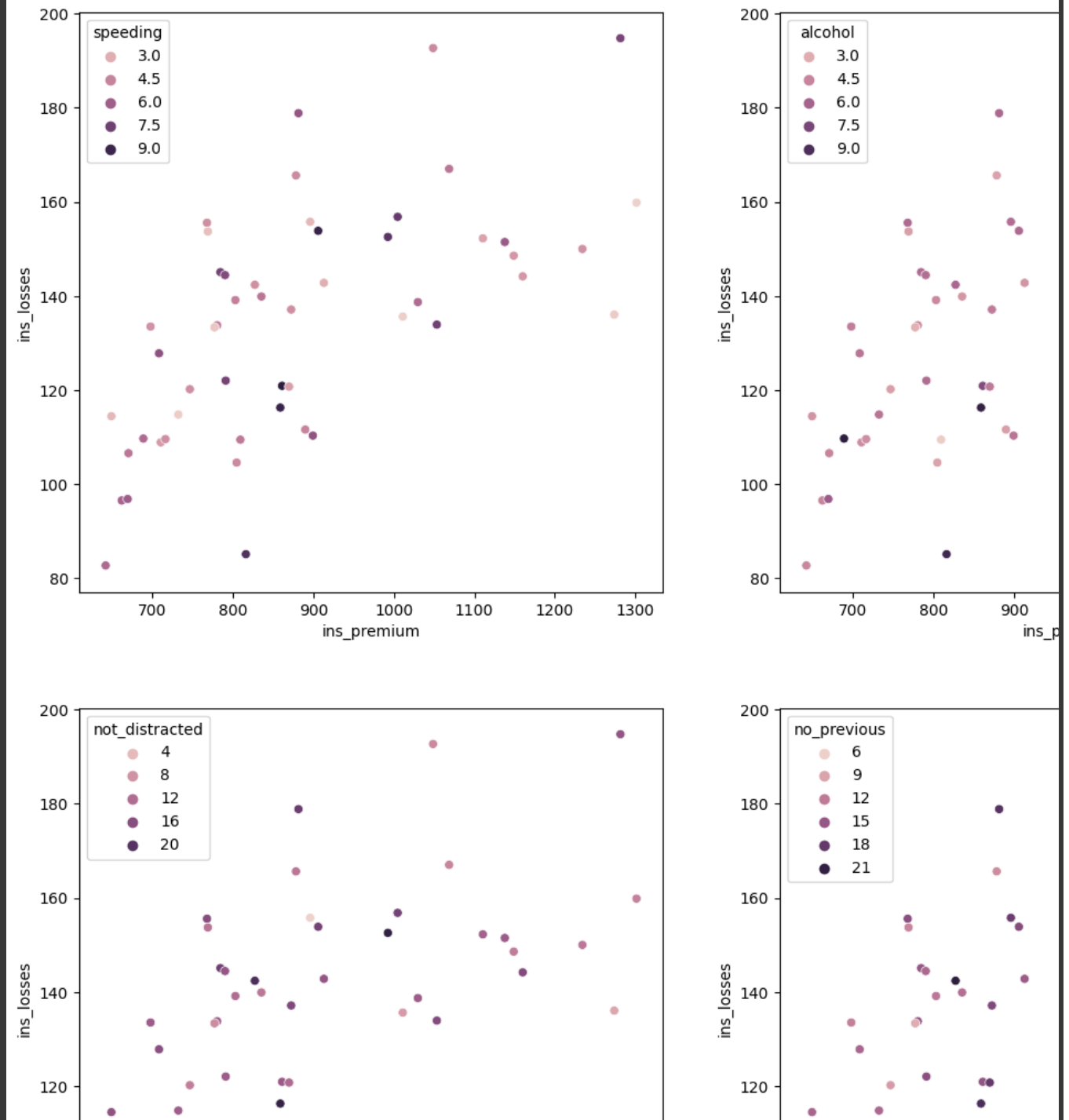
```
plt.show()
```

```
<ipython-input-5-da7e14738bc2>:3: MatplotlibDeprecationWarning: Auto-removal of overlapping axes is deprecated sir
  plt.subplot(2,2,1)
```
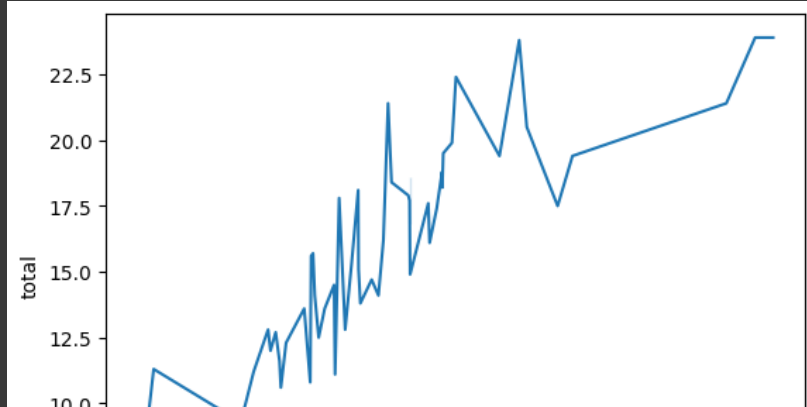


```
#Inference
# Increasing insurance premium relates to increase in insurance loss by insurance companies
```

▾ Lineplot

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

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



```
#Inference
#The graph shows that increasing alcohol impaired percentage of drivers in fatal collisions shows increase in
#total number of drivers involved in fatal collisions
```

Correlation Heatmap

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

```
<ipython-input-9-ee8a182b9868>:1: FutureWarning: The default value of numeric_only in DataFrame.corr is deprecated
  sns.heatmap(df.corr(), cmap="Blues", annot=True)
<Axes: >
```
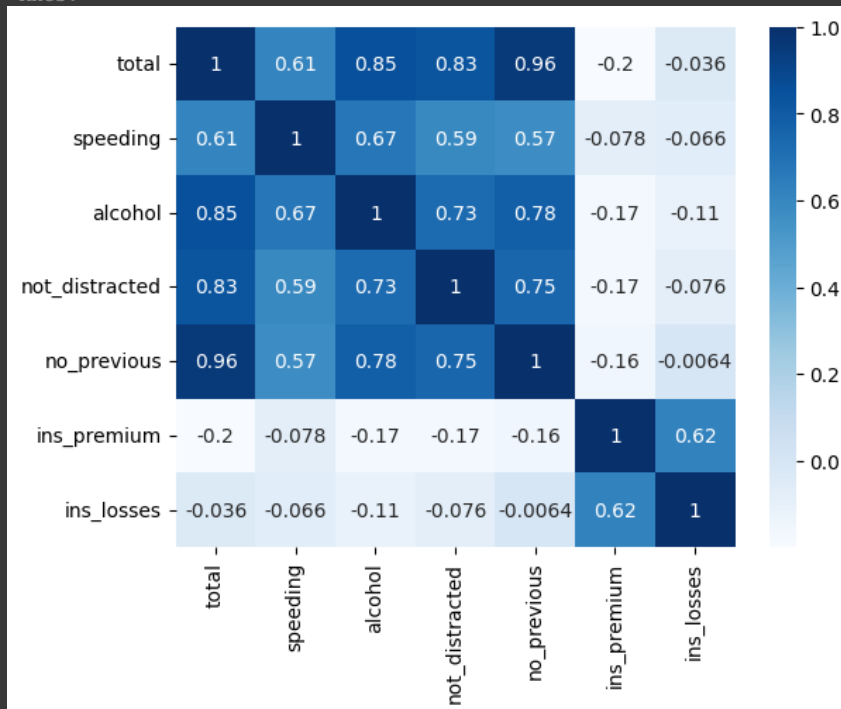


```
#the correlation heatmap shows that:
# total strong correlation with speeding, alcohol, not_distracted and no_previous
# speeding has string correlation with alcohol, not_distracted and no_previous
#ins_premium & ins_losses have weak correlation with other attributes except between both
```
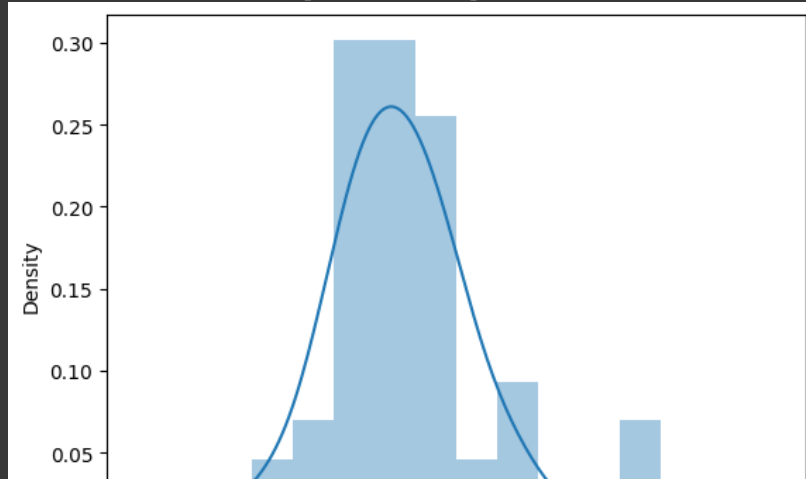
Distplot

```
sns.distplot(df.alcohol)
```

```
<ipython-input-22-cc0e16fd78a8>: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.alcohol)
<Axes: xlabel='alcohol', ylabel='Density'>
```
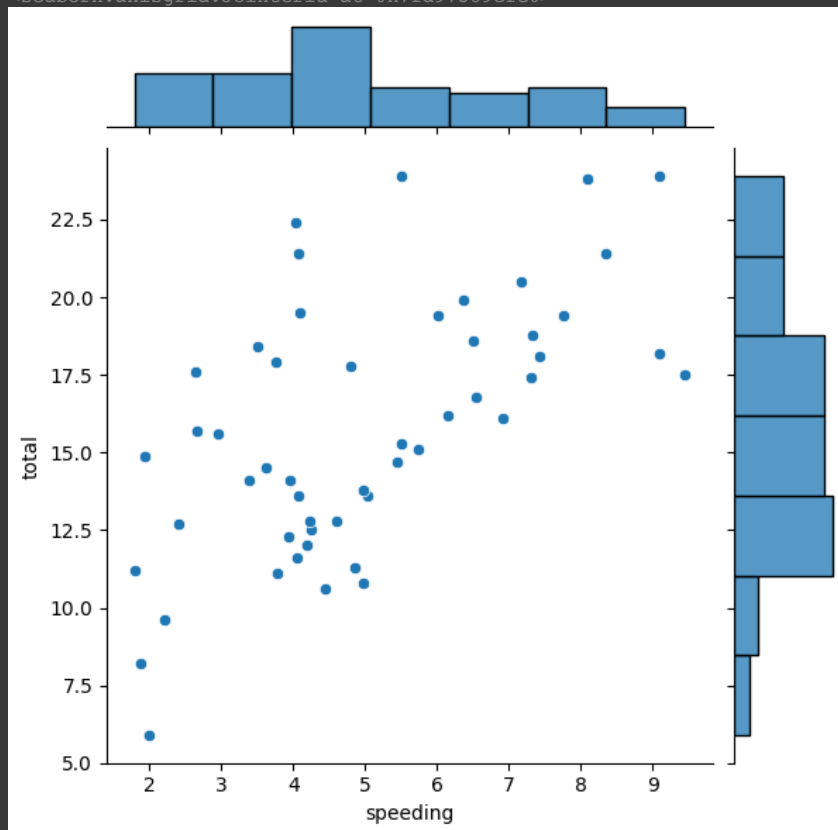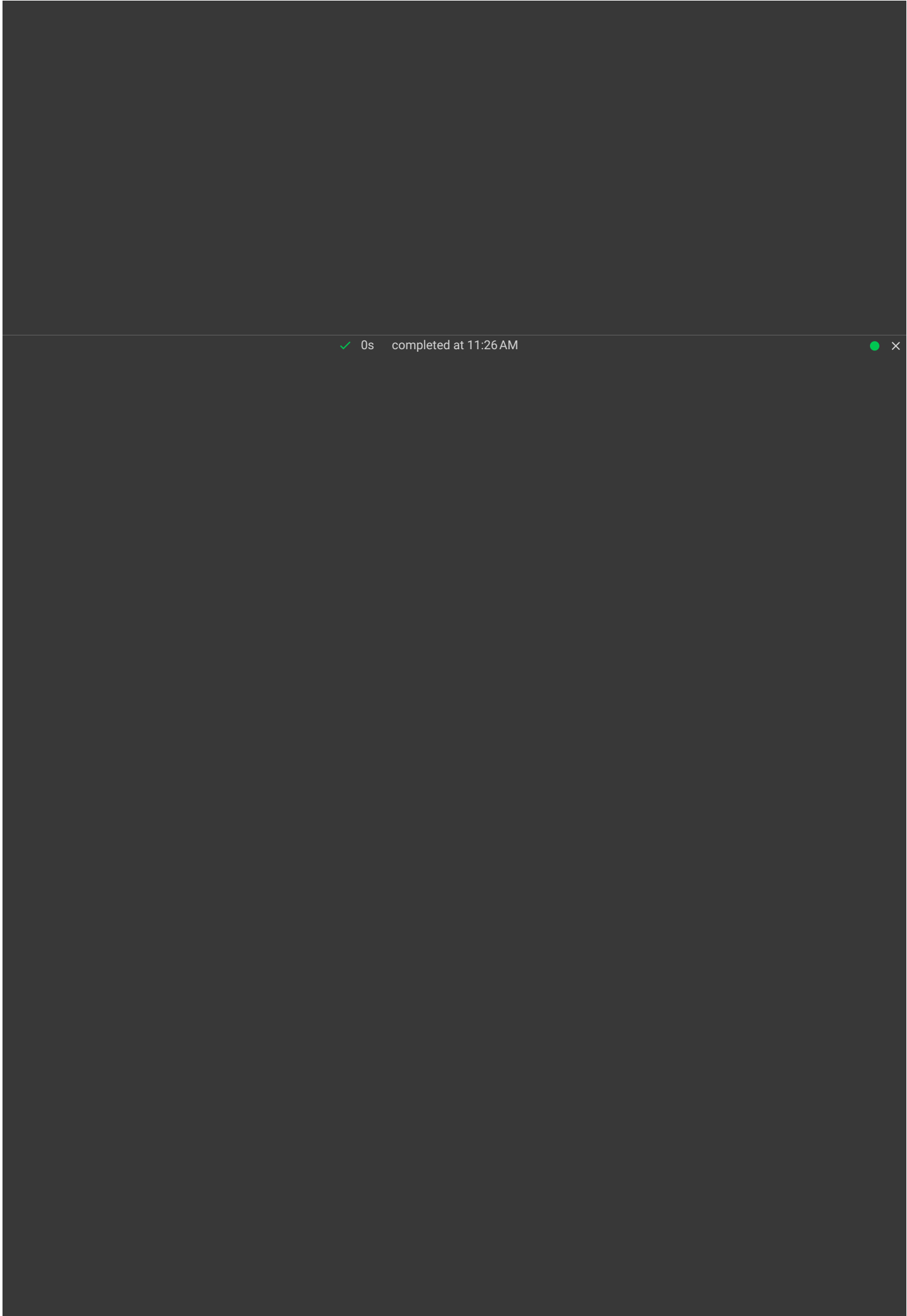


```
#Inference
#The distplot shows the density initially increases and then decreases
```

Jointplot

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

```
<seaborn.axisgrid.JointGrid at 0x7fd97389efe0>
```

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