In [1]:
```
import seaborn as sns
```

```
C:\Users\VISHNU VARDHAN\anaconda3\lib\site-packages\scipy\__init__.py:138: UserWarning: A NumPy version >=1.16.5 and <1.23.0 is required for this version of SciPy (detected version 1.24.3)
  warnings.warn(f"A NumPy version >={np_minversion} and <{np_maxversion} is required for this version of "
```

In [2]:
```
print(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']
```

In [3]:
```
df = sns.load_dataset('car_crashes')
```

In [4]:
```
print(df.head())
```

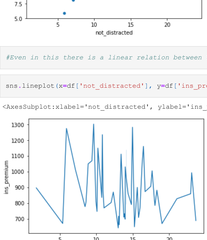
```
   total  speeding  alcohol  not_distracted  no_previous  ins_premium  \
0   18.8     7.332    5.640          18.048       15.040       784.55
1   18.1     7.421    4.525          16.290       17.014      1053.48
2   18.6     6.510    5.208          15.624       17.856       899.47
3   22.4     4.032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

   ins_losses abbrev
0      145.08     AL
1      133.93     AK
2      110.35     AZ
3      142.39     AR
4      165.63     CA
```

In [5]:
```
print(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
None
```

In [9]:
```
sns.scatterplot(x=df['alcohol'], y= df['total'])
```

Out[9]:
```
<AxesSubplot:xlabel='alcohol', ylabel='total'>
```



In [ ]:
```
# As the value of alcohol increases total is also increasing.
```

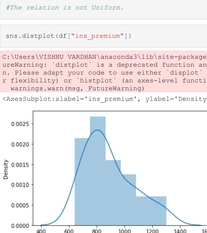
In [10]:
```
sns.scatterplot(x=df['not_distracted'], y= df['total'])
```

Out[10]:
```
<AxesSubplot:xlabel='not_distracted', ylabel='total'>
```

In [ ]:
```
#Even in this there is a linear relation between total and not_distracted
```

In [12]:
```
sns.lineplot(x=df['not_distracted'], y=df['ins_premium'])
```

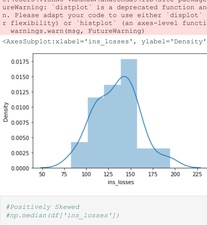
Out[12]:
```
<AxesSubplot:xlabel='not_distracted', ylabel='ins_premium'>
```



In [ ]:
```
#The relation between ins_premium and not_distracted is not uniform.
```

In [13]:
```
sns.lineplot(x=df['speeding'], y=df['no_previous'])
```

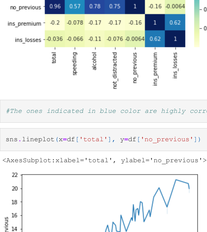
Out[13]:
```
<AxesSubplot:xlabel='speeding', ylabel='no_previous'>
```



In [ ]:
```
#The relation is not uniform.
```

In [14]:
```
sns.lineplot(x=df['ins_losses'], y=df['ins_premium'])
```

Out[14]:
```
<AxesSubplot:xlabel='ins_losses', ylabel='ins_premium'>
```



In [ ]:
```
#The relation is not Uniform.
```

In [15]:
```
sns.distplot(df["ins_premium"])
```

```
C:\Users\VISHNU VARDHAN\anaconda3\lib\site-packages\seaborn\distributions.py:2557: FutureWarning: `distplot` is a deprecated function and will be removed in a future version. Please adapt your code to use either `displot` (a figure-level function with similar flexibility) or `histplot` (an axes-level function for histograms).
  warnings.warn(msg, FutureWarning)
```

Out[15]:
```
<AxesSubplot:xlabel='ins_premium', ylabel='Density'>
```

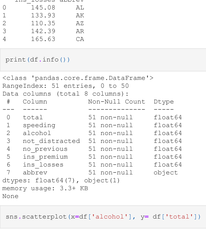

In [17]:
```
#Positively Skewed
import numpy as np
np.median(df['ins_premium'])
```

Out[17]:
```
858.97
```

In [16]:
```
sns.distplot(df["ins_losses"])
```

```
C:\Users\VISHNU VARDHAN\anaconda3\lib\site-packages\seaborn\distributions.py:2557: FutureWarning: `distplot` is a deprecated function and will be removed in a future version. Please adapt your code to use either `displot` (a figure-level function with similar flexibility) or `histplot` (an axes-level function for histograms).
  warnings.warn(msg, FutureWarning)
```

Out[16]:
```
<AxesSubplot:xlabel='ins_losses', ylabel='Density'>
```



In [26]:
```
#Positively Skewed
#np.median(df['ins_losses'])
```

In [36]:
```
sns.heatmap(df.corr(), annot=True, cmap="YlGnBu")
```

Out[36]:
```
<AxesSubplot:>
```


In [ ]:
```
#The ones indicated in blue color are highly correlated.
```

In [37]:
```
sns.lineplot(x=df['total'], y=df['no_previous'])
```

Out[37]:
```
<AxesSubplot:xlabel='total', ylabel='no_previous'>
```


In [ ]:
```
#As the value of total increases the value of no_previous also increases.
```

In [ ]:
```
```