import the seaborn and matplot

```
import seaborn as sns
import matplotlib.pyplot as plt
```

Load the dataset of car crashes

```
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
```

	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.info()
```

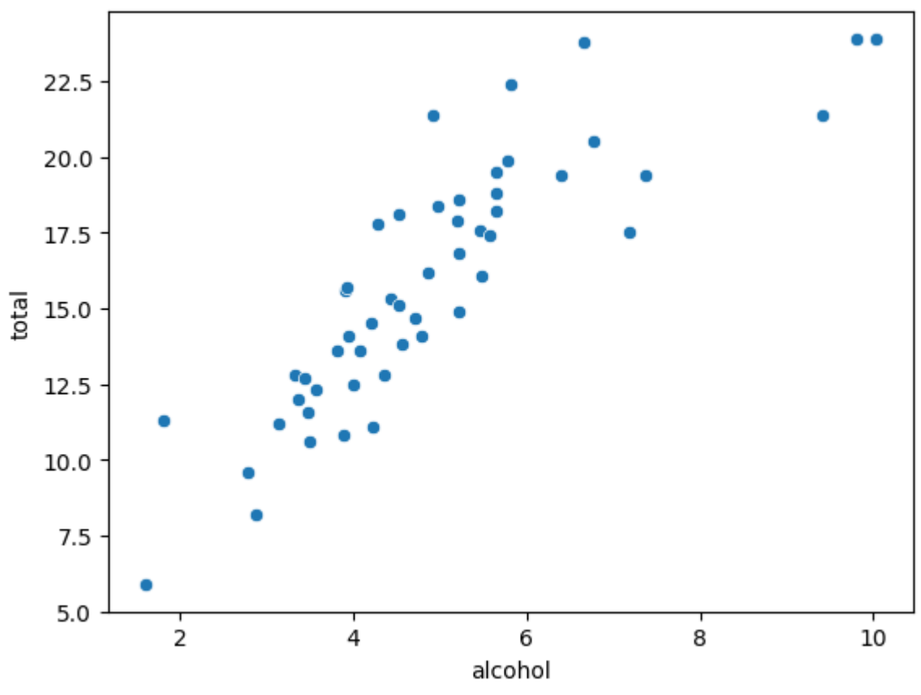
```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 51 entries, 0 to 50
Data columns (total 8 columns):
 #   Column          Non-Null Count  Dtype  
---  ------          --------------  -----  
 0   total           51 non-null     float64
 1   speeding        51 non-null     float64
 2   alcohol         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
```

```
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="alcohol",y="total",data=df)
```

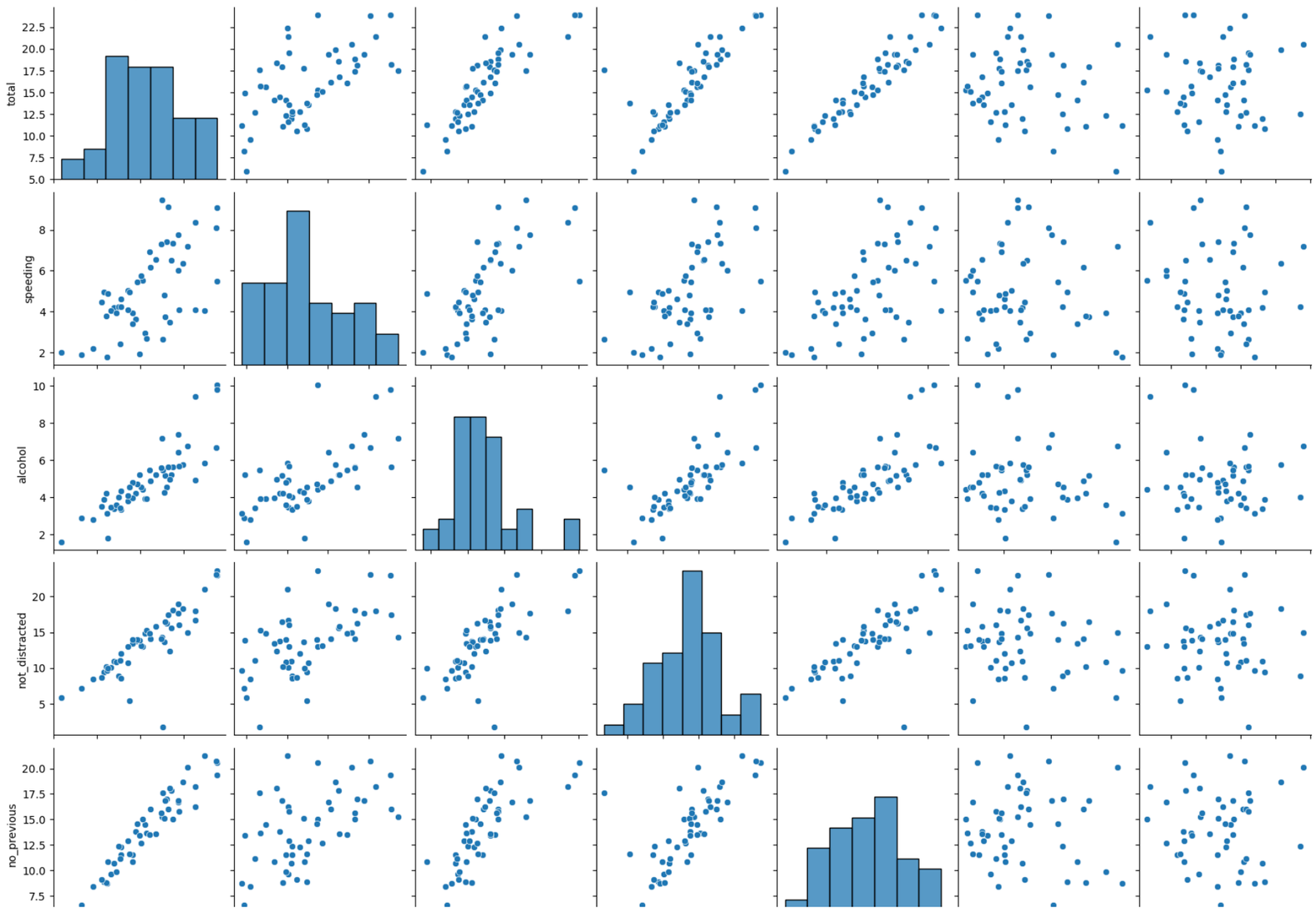
```
<Axes: xlabel='alcohol', ylabel='total'>
```



Inference: According to the graphic, as the number of alcohol-related crashes rises, so do the overall numbers of auto accidents.

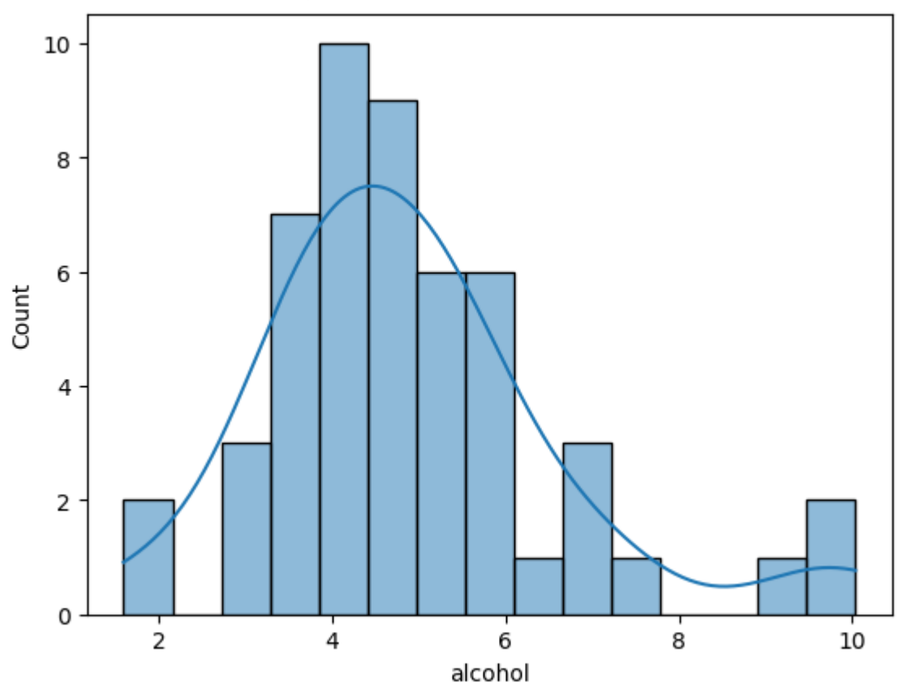
```
sns.pairplot(df)
```

```
<seaborn.axisgrid.PairGrid at 0x7cf9e1a93e80>
```




```
sns.histplot(df["alcohol"], bins=15, kde=True)
```

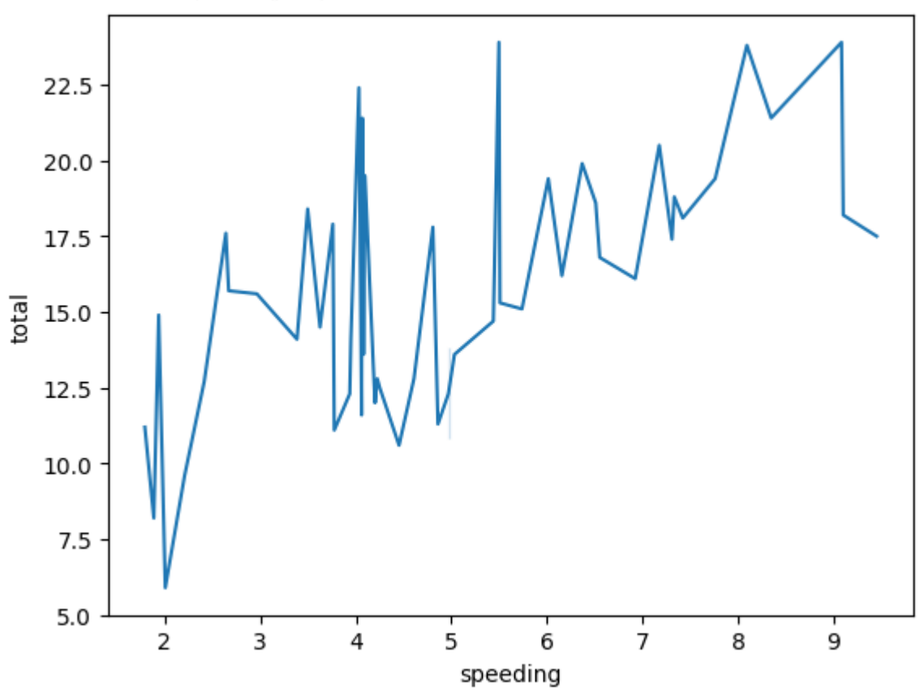
```
<Axes: xlabel='alcohol', ylabel='Count'>
```



Inference: It demonstrates that, with a peak of 5 to 10 crashes, alcohol-related crashes are generally quite rare in most locations.

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

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



Inference: The total number of crashes has climbed along with the rise in speeding-related car accidents.

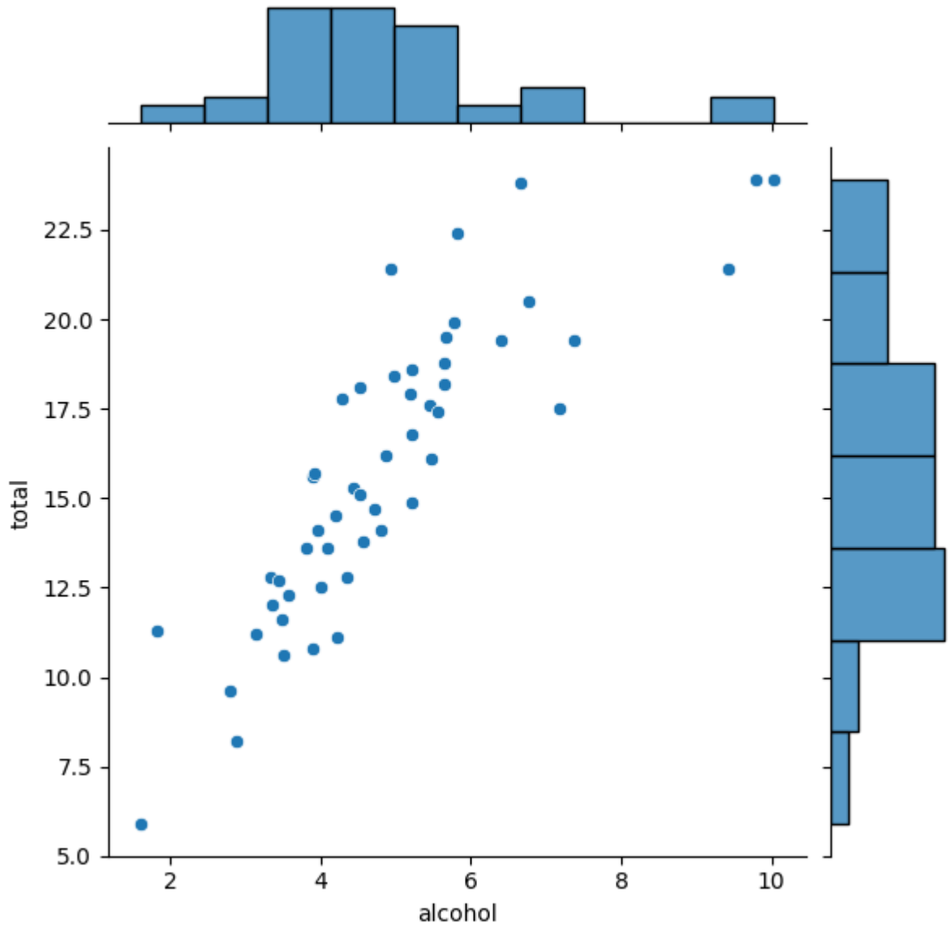
```
sns.relplot(x="speeding", y="total", hue="alcohol", data=df)
```

```
<seaborn.axisgrid.FacetGrid at 0x7cf9e1a91210>
```

Inference: The relplot is used to distinguish between crashes caused by drinking and crashes caused by speeding (by using an x-axis and y-axis, respectively). This enables you to investigate the effects of drunk driving crashes on the link between total crashes and speeding.

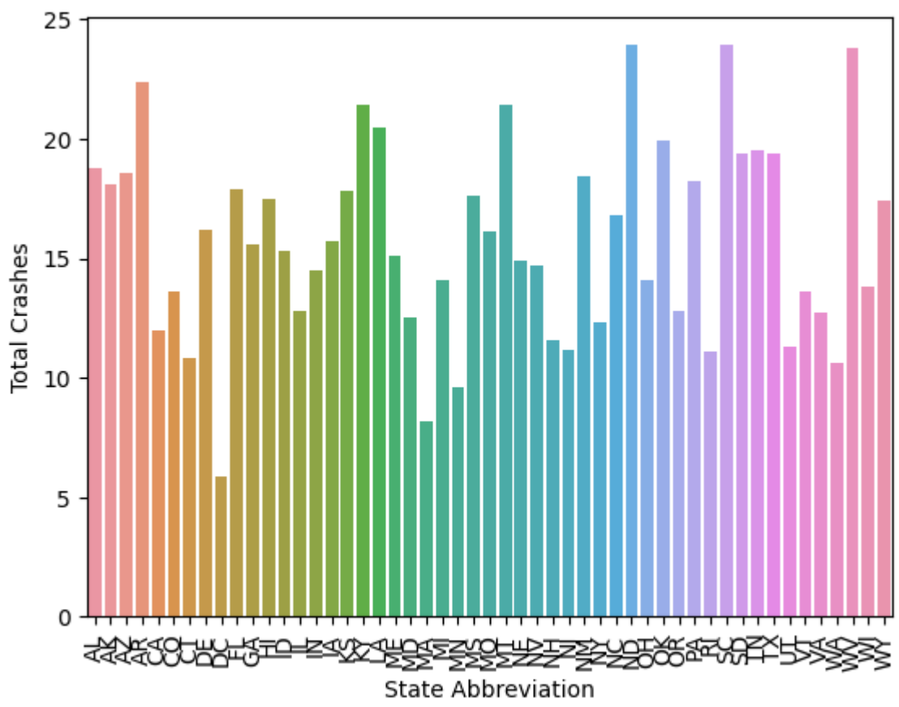
```
sns.jointplot(x="alcohol", y="total", data=df, kind="scatter")
```

```
<seaborn.axisgrid.JointGrid at 0x7cf9d8603fd0>
```



Inference: The jointplot offers histograms for each variable combined with a scatter plot of crashes caused by alcohol versus all crashes. This aids in the visualisation of the marginal distributions of the two variables and the bivariate distribution.

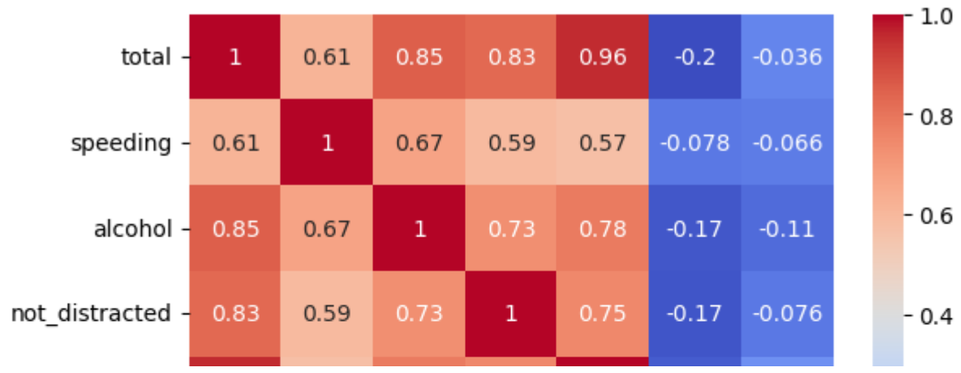
```
sns.barplot(x="abbrev", y="total", data=df,width=0.8)
plt.xlabel("State Abbreviation")
plt.ylabel("Total Crashes")
plt.xticks(rotation=90)
plt.show()
```



Inference: Uses the abbreviations of the total crashes in various states to display them on the x-axis. This lets you compare crash counts between states.

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

```
<ipython-input-36-01a5e2923d95>:1: FutureWarning: The default value of numeric_only in DataFrame.corr is deprecated. In a future
  corr_matrix = df.corr()
<Axes: >
```



Inference: There is a positive correlation between "total" and "alcohol."