Siddharth Khandelwal

21BCE0882

```
import seaborn as sns
```

```
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
12	15.3	5.508	4.437	13.005	14.994	641.96	82.75	ID
13	12.8	4.608	4.352	12.032	12.288	803.11	139.15	IL
14	14.5	3.625	4.205	13.775	13.775	710.46	108.92	IN
15	15.7	2.669	3.925	15.229	13.659	649.06	114.47	IA
16	17.8	4.806	4.272	13.706	15.130	780.45	133.80	KS
17	21.4	4.066	4.922	16.692	16.264	872.51	137.13	KY
18	20.5	7.175	6.765	14.965	20.090	1281.55	194.78	LA
19	15.1	5.738	4.530	13.137	12.684	661.88	96.57	ME
20	12.5	4.250	4.000	8.875	12.375	1048.78	192.70	MD
21	8.2	1.886	2.870	7.134	6.560	1011.14	135.63	MA
22	14.1	3.384	3.948	13.395	10.857	1110.61	152.26	MI
23	9.6	2.208	2.784	8.448	8.448	777.18	133.35	MN
24	17.6	2.640	5.456	1.760	17.600	896.07	155.77	MS
25	16.1	6.923	5.474	14.812	13.524	790.32	144.45	MO
26	21.4	8.346	9.416	17.976	18.190	816.21	85.15	MT
27	14.9	1.937	5.215	13.857	13.410	732.28	114.82	NE

28	14.7	5.439	4.704	13.965	14.553	1029.87	138.71	NV
29	11.6	4.060	3.480	10.092	9.628	746.54	120.21	NH
30	11.2	1.792	3.136	9.632	8.736	1301.52	159.85	NJ

```
df.info()
```

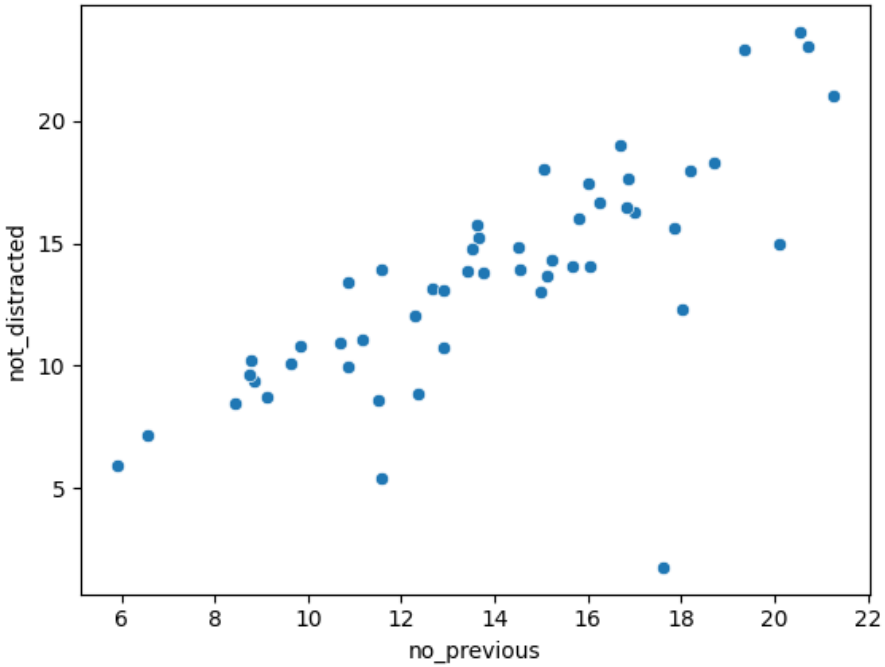
```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 51 entries, 0 to 50
Data columns (total 8 columns):
 #   Column          Non-Null Count  Dtype  
---  ------          --------------  -----  
 0   total           51 non-null     float64
 1   speeding        51 non-null     float64
 2   alcohol  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

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

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


```
sns.scatterplot(x="no_previous",y='not_distracted',data=df)
```

```
<Axes: xlabel='no_previous', ylabel='not_distracted'>
```

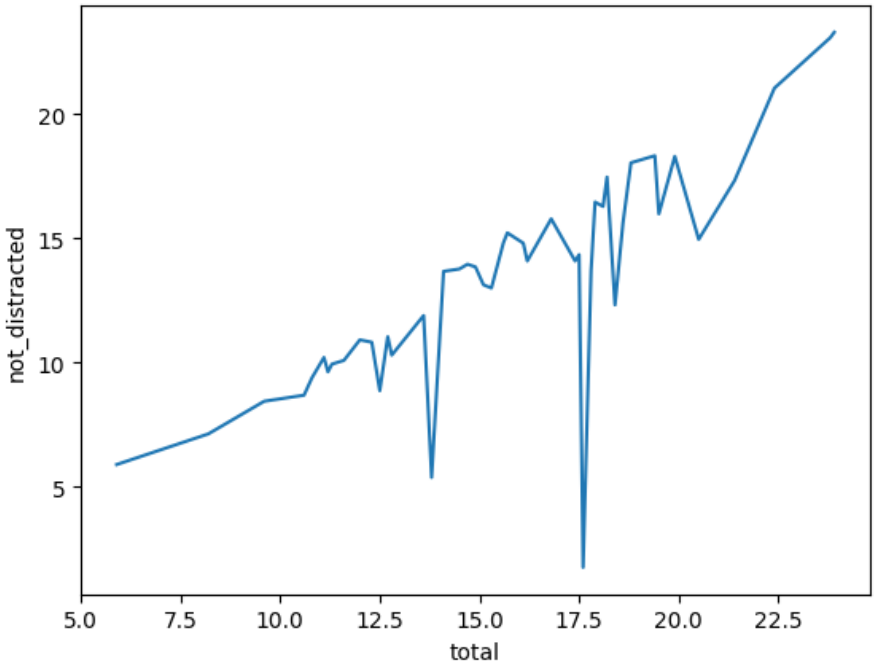



```
sns.scatterplot(x='not_distracted',y="alcohol",data=df)
```

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

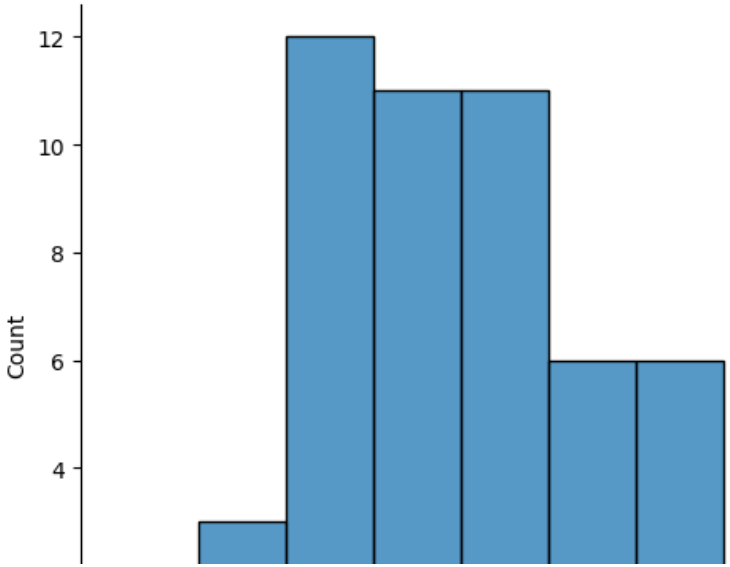

```
sns.lineplot(x="total",y='not_distracted',data=df,errorbar=None)
```

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



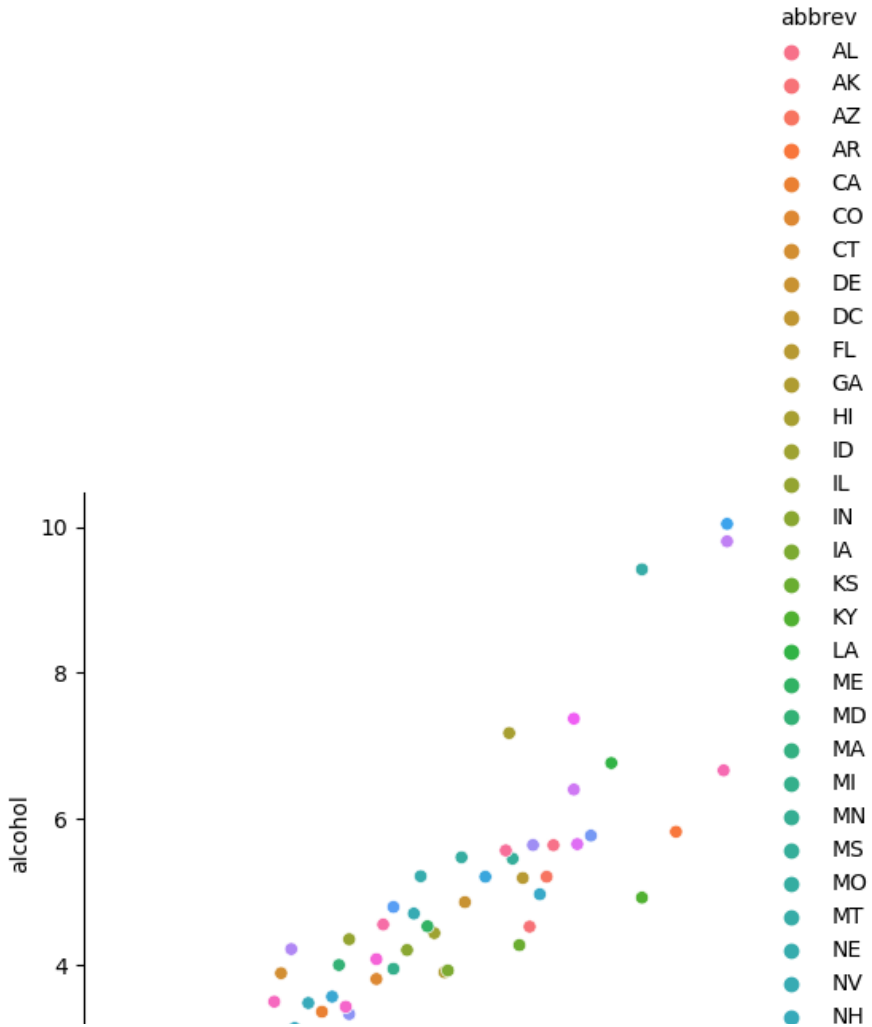

```
sns.displot(df["total"])
```

```
<seaborn.axisgrid.FacetGrid at 0x7f2bd7c82ad0>
```



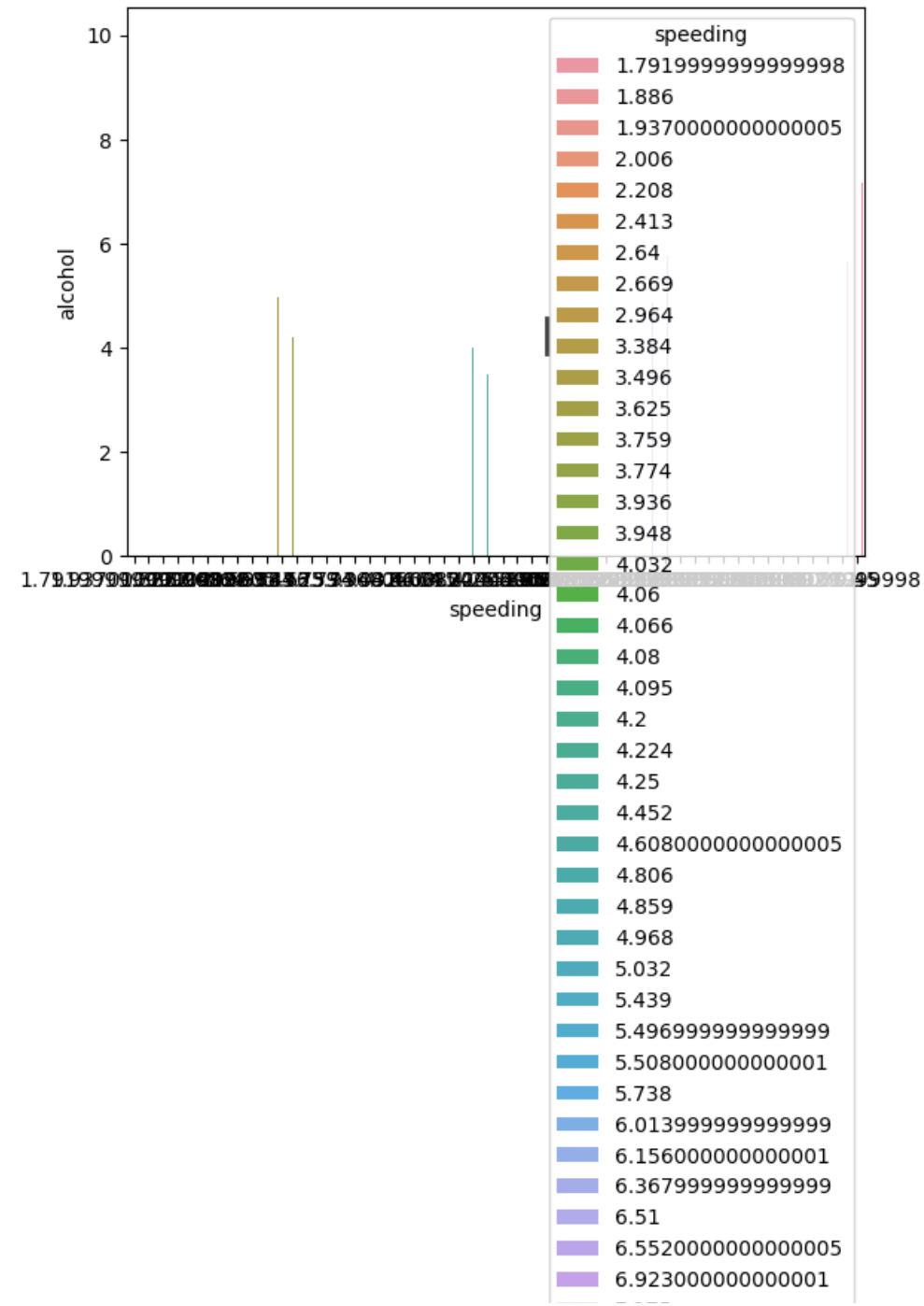

```
sns.relplot(x="total",y="alcohol",data=df,hue="abbrev")
```

```
<seaborn.axisgrid.FacetGrid at 0x7f2bd7b68340>
```




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

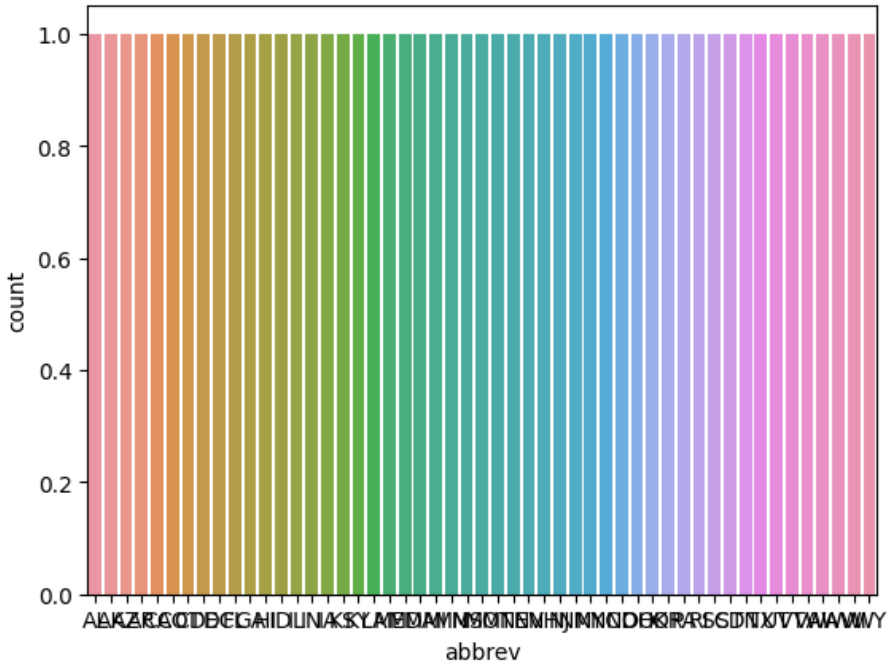
```
<Axes: xlabel='speeding', ylabel='alcohol'>
```



7.175
7.308
7.332000000000001

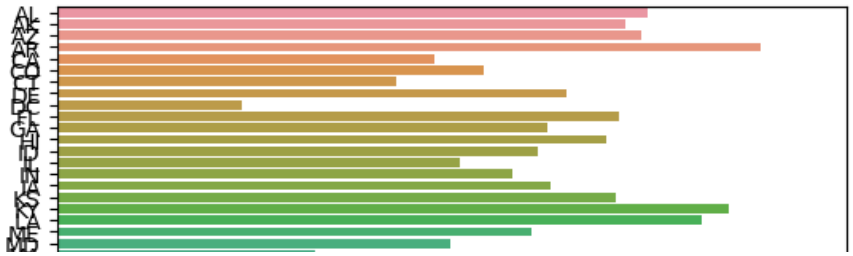
```
sns.countplot(x='abbrev',data=df)
```

```
<Axes: xlabel='abbrev', ylabel='count'>
```



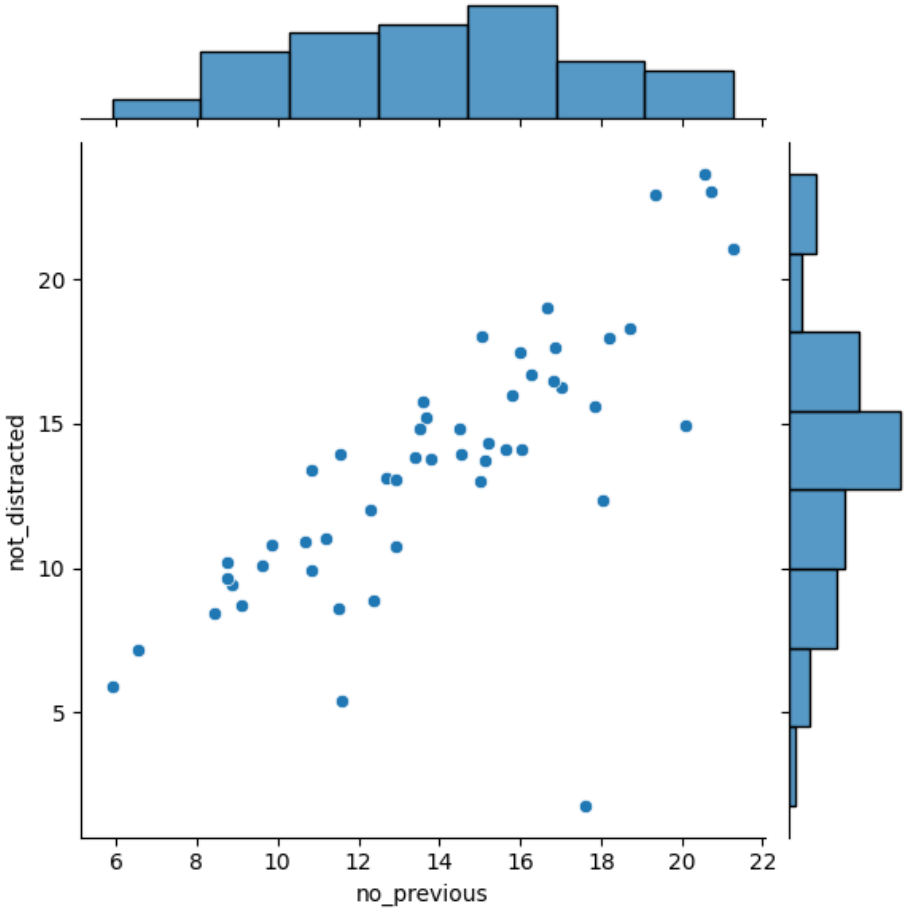

```
sns.barplot(x="total",y='abbrev',data=df,errorbar=None)
```

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



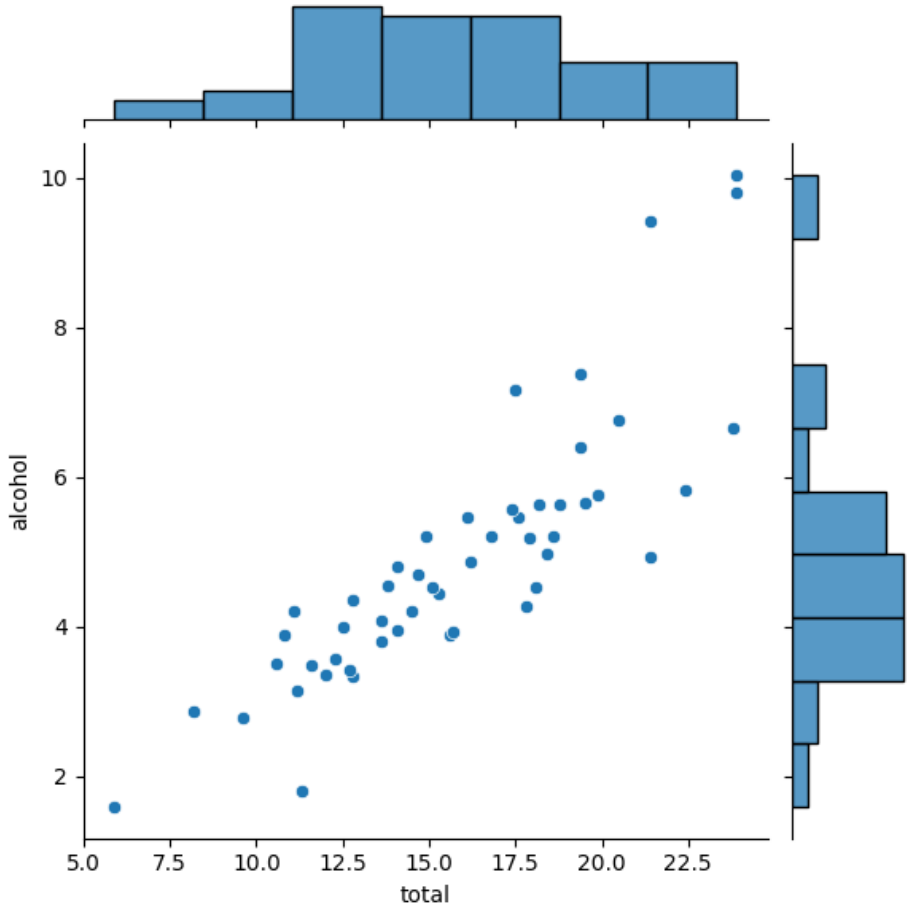
```
sns.jointplot(x="no_previous",y='not_distracted',data=df)
```

```
<seaborn.axisgrid.JointGrid at 0x7f2bd2b73340>
```




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

```
<seaborn.axisgrid.JointGrid at 0x7f2bd26397e0>
```




```
corr=df.corr()
```

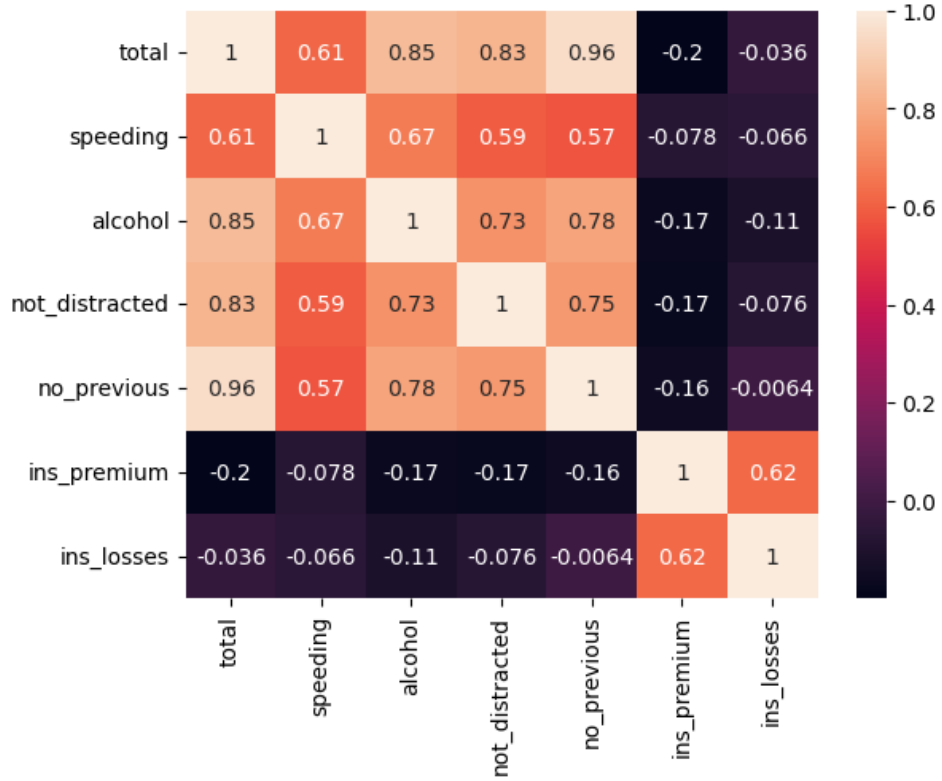
```
<ipython-input-16-0014364bc22a>:1: FutureWarning: The default value of numeric_only in DataFrame.corr is deprecated. In a future version, it will def
  corr=df.corr()
```

```
corr
```

	total	speeding	alcohol	not_distracted	no_previous	ins_premium	ins_losses
total	1.000000	0.611548	0.852613	0.827560	0.956179	-0.199702	-0.036011
speeding	0.611548	1.000000	0.669719	0.588010	0.571976	-0.077675	-0.065928
alcohol	0.852613	0.669719	1.000000	0.732816	0.783520	-0.170612	-0.112547
not_distracted	0.827560	0.588010	0.732816	1.000000	0.747307	-0.174856	-0.075970

```
sns.heatmap(corr,annot=True)
```

```
<Axes: >
```




```
sns.violinplot(x="no_previous",y='not_distracted',data=df)
```

```
<Axes: xlabel='no_previous', ylabel='not_distracted'>
```