Assignment-2

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In [4]:
```
import numpy as np
import pandas as pd
import seaborn as sns
import matplotlib.pyplot as plt
```

In [5]:
```
data = pd.read_csv('car_crashes.csv')
data.head()
```

Out[5]:

	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

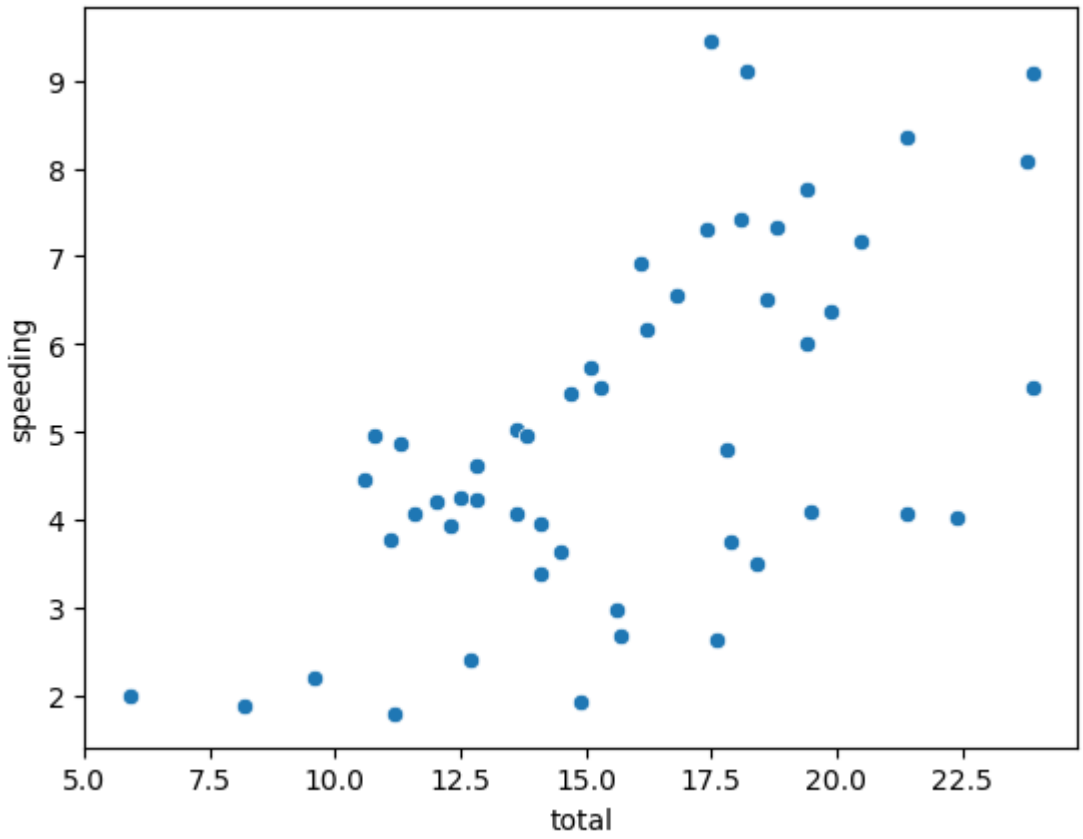
In [6]:
```
data.tail()
```

Out[6]:

	total	speeding	alcohol	not_distracted	no_previous	ins_premium	ins_losses	abbrev
46	12.7	2.413	3.429	11.049	11.176	768.95	153.72	VA
47	10.6	4.452	3.498	8.692	9.116	890.03	111.62	WA
48	23.8	8.092	6.664	23.086	20.706	992.61	152.56	WV
49	13.8	4.968	4.554	5.382	11.592	670.31	106.62	WI
50	17.4	7.308	5.568	14.094	15.660	791.14	122.04	WY

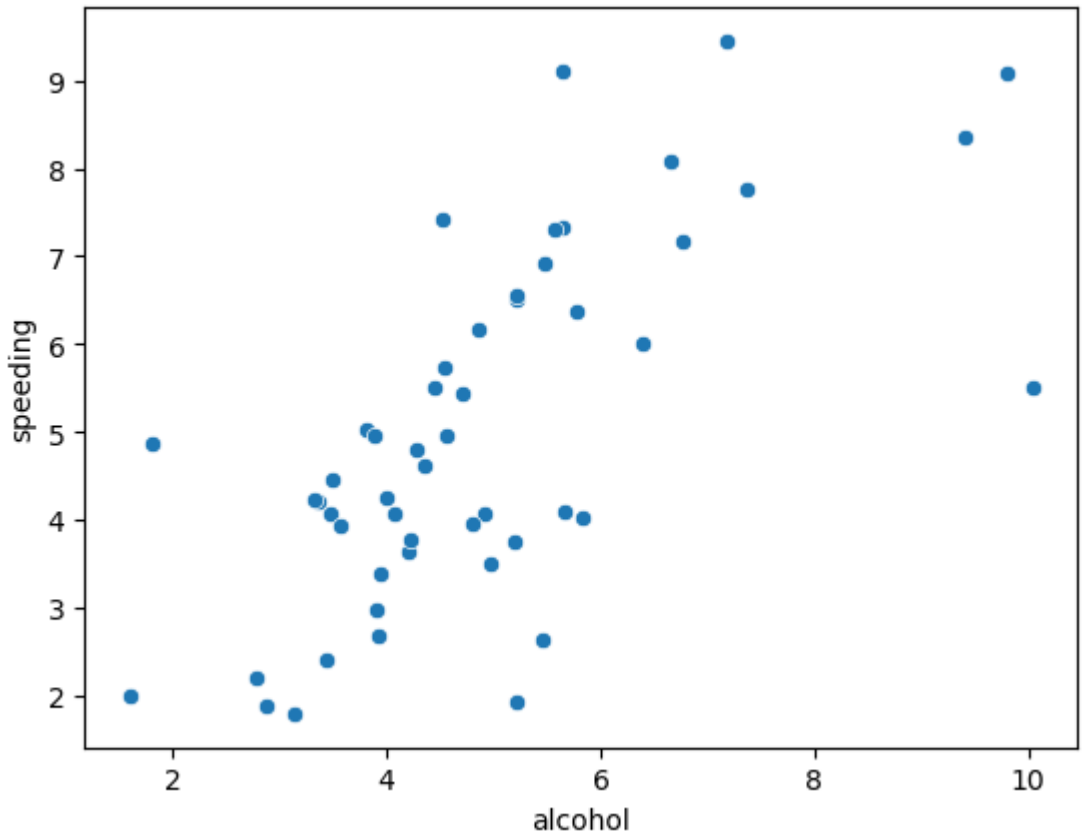
In [16]:
```
sns.scatterplot(x="total",y="speeding",data=data)
```

Out[16]:
```
<AxesSubplot:xlabel='total', ylabel='speeding'>
```



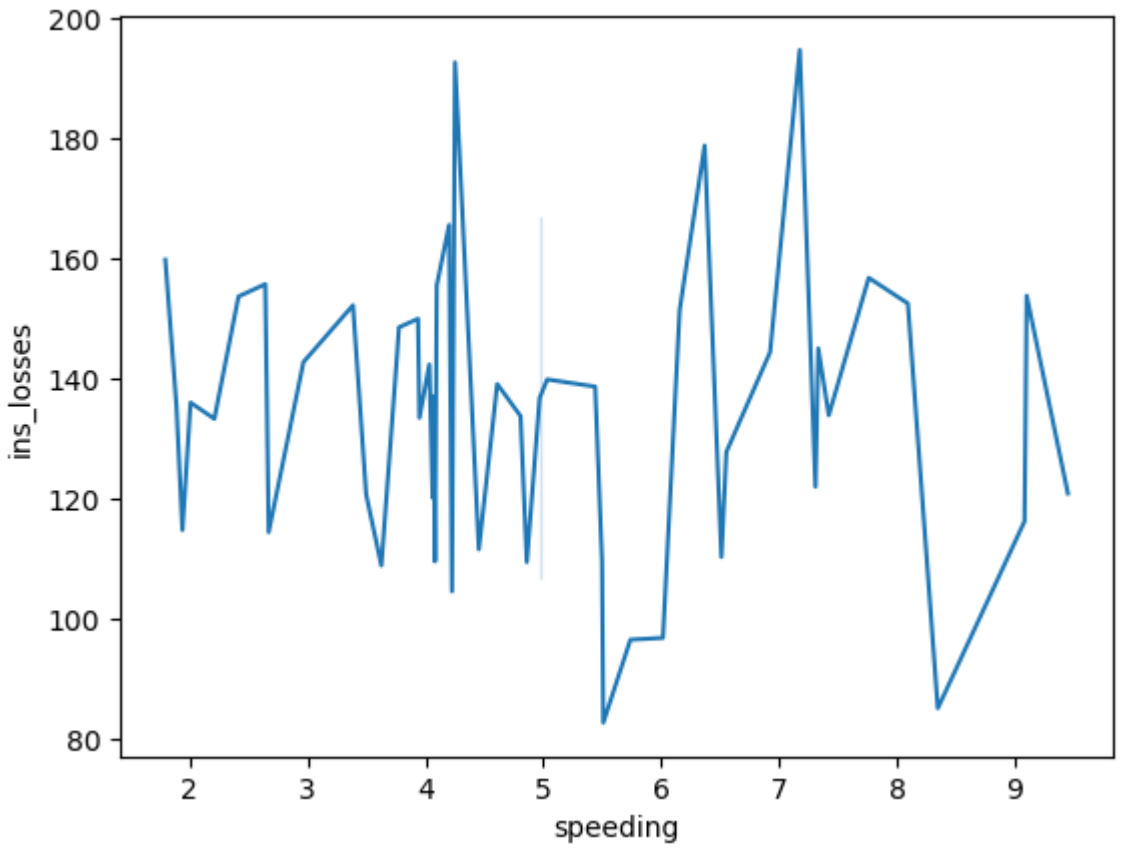
In [8]:
```
sns.scatterplot(x="alcohol",y="speeding",data=data)
```

Out[8]:
```
<AxesSubplot:xlabel='alcohol', ylabel='speeding'>
```



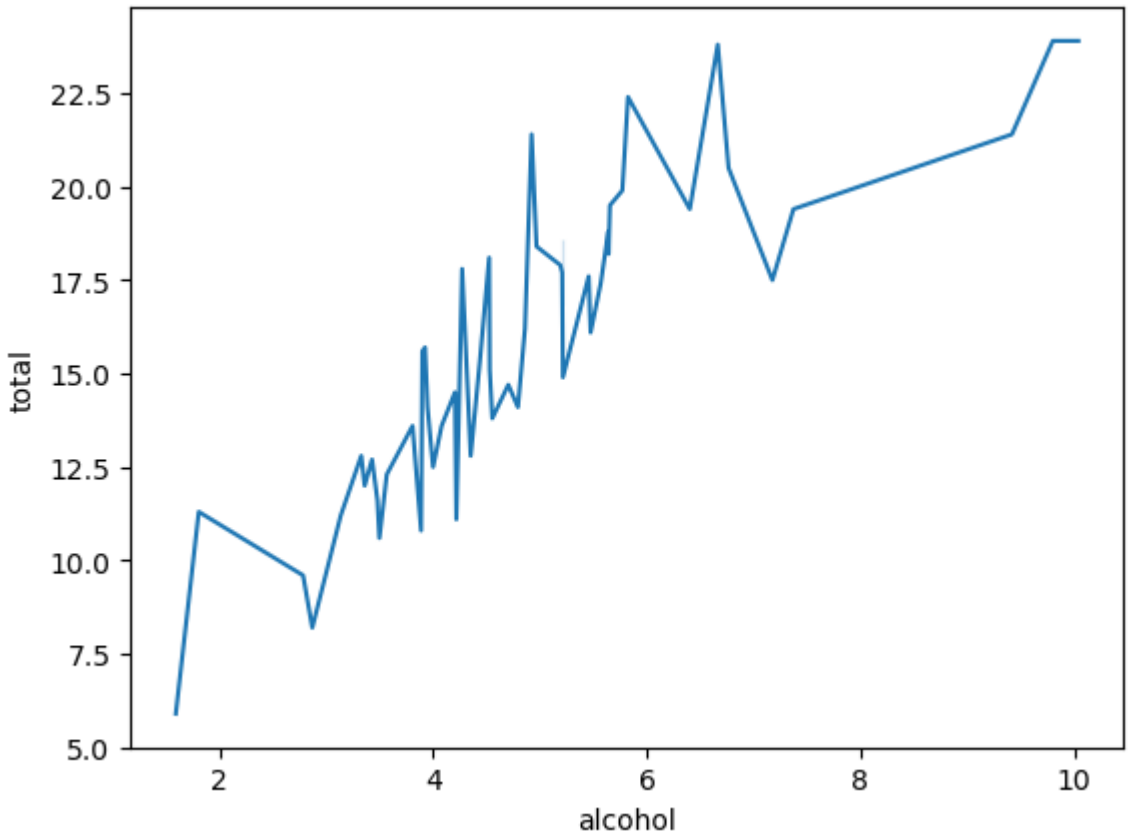
In [46]:
```
sns.lineplot(x="speeding",y="ins_losses",data=data)
```

Out[46]:
```
<AxesSubplot:xlabel='speeding', ylabel='ins_losses'>
```



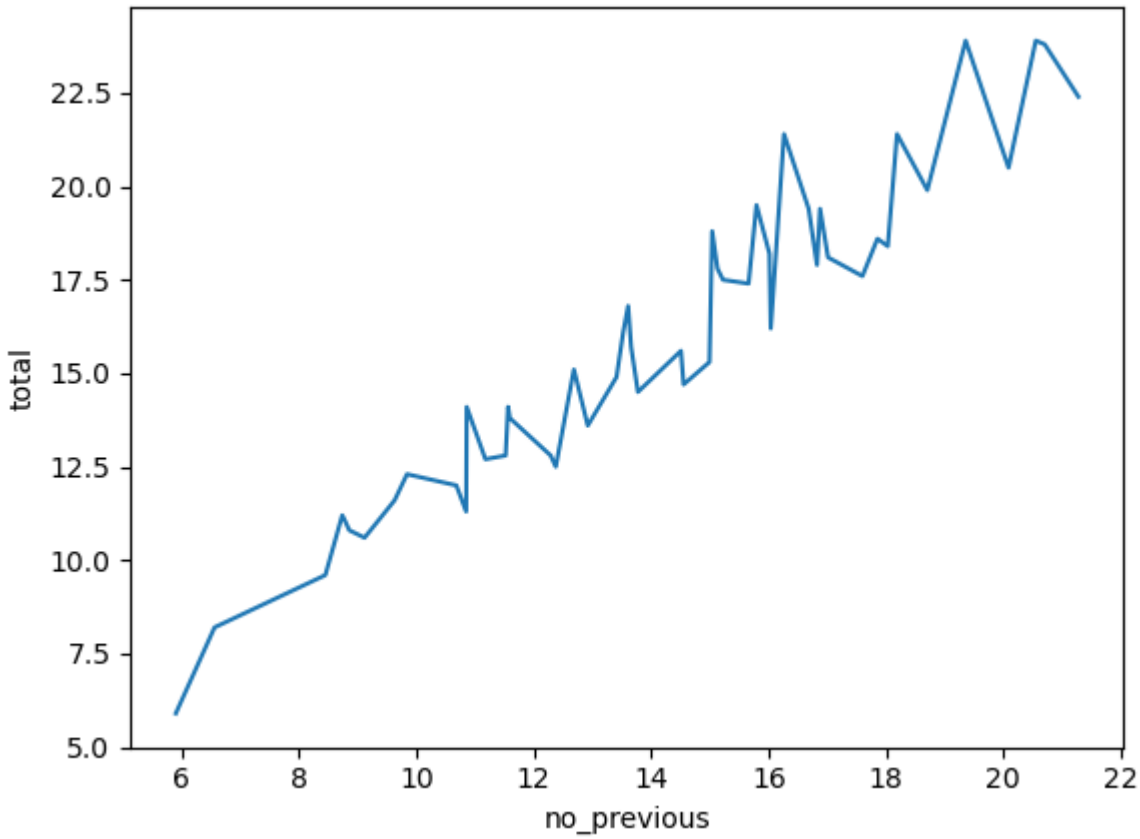
In [14]:
```
sns.lineplot(x="alcohol",y="total",data=data)
```

Out[14]:
```
<AxesSubplot:xlabel='alcohol', ylabel='total'>
```



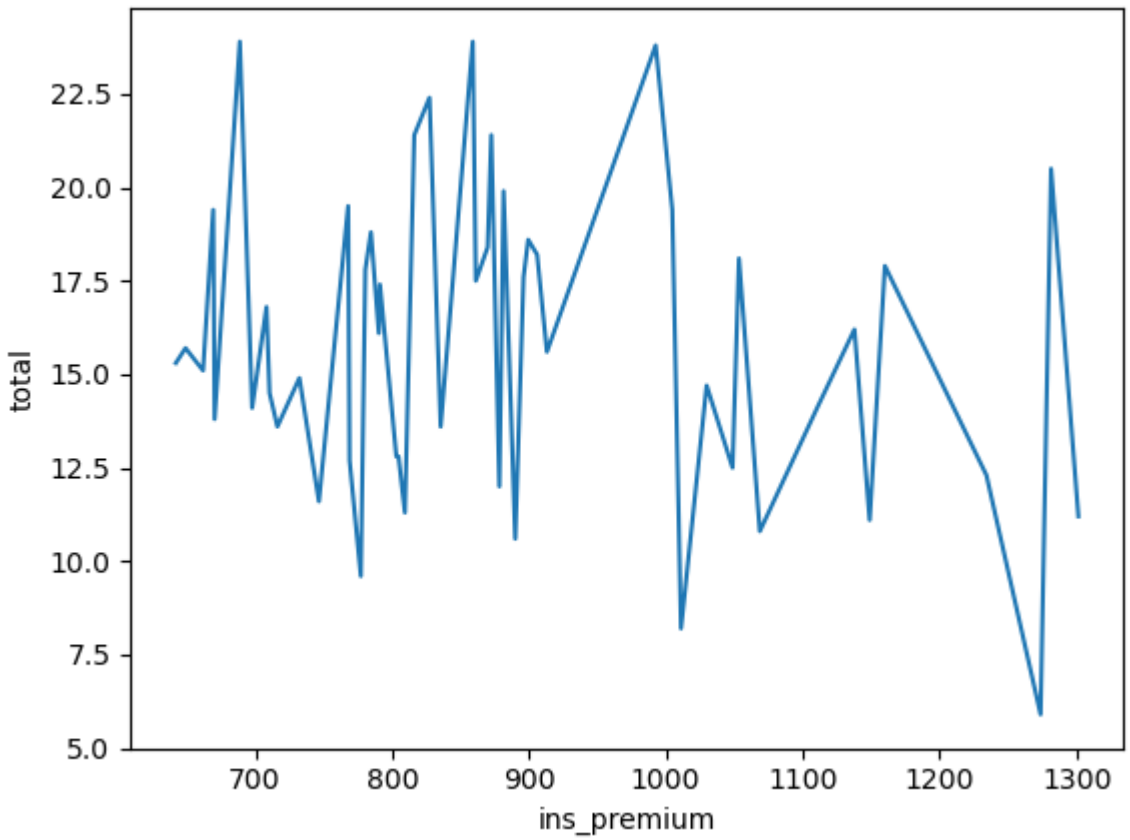
In [11]:
```
sns.lineplot(x="no_previous",y="total",data=data)
```

Out[11]:
```
<AxesSubplot:xlabel='no_previous', ylabel='total'>
```



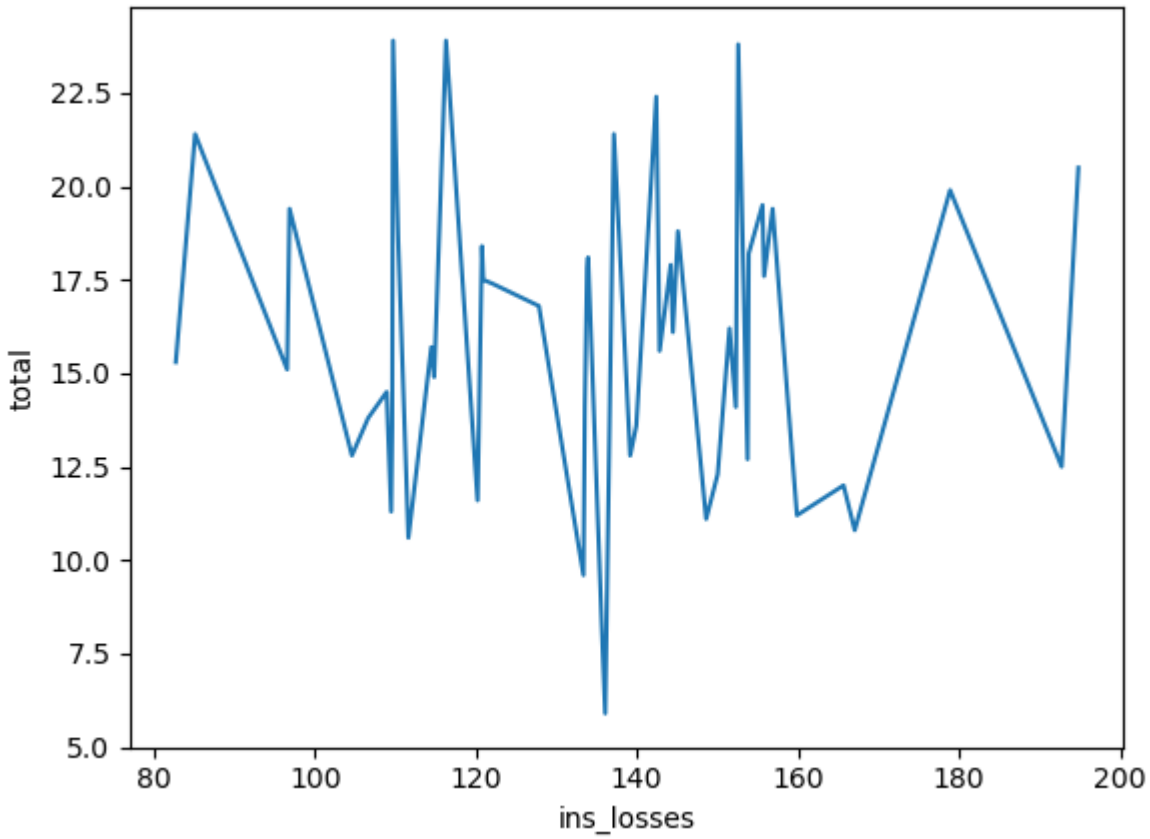
In [12]:
```
sns.lineplot(x="ins_premium",y="total",data=data)
```

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



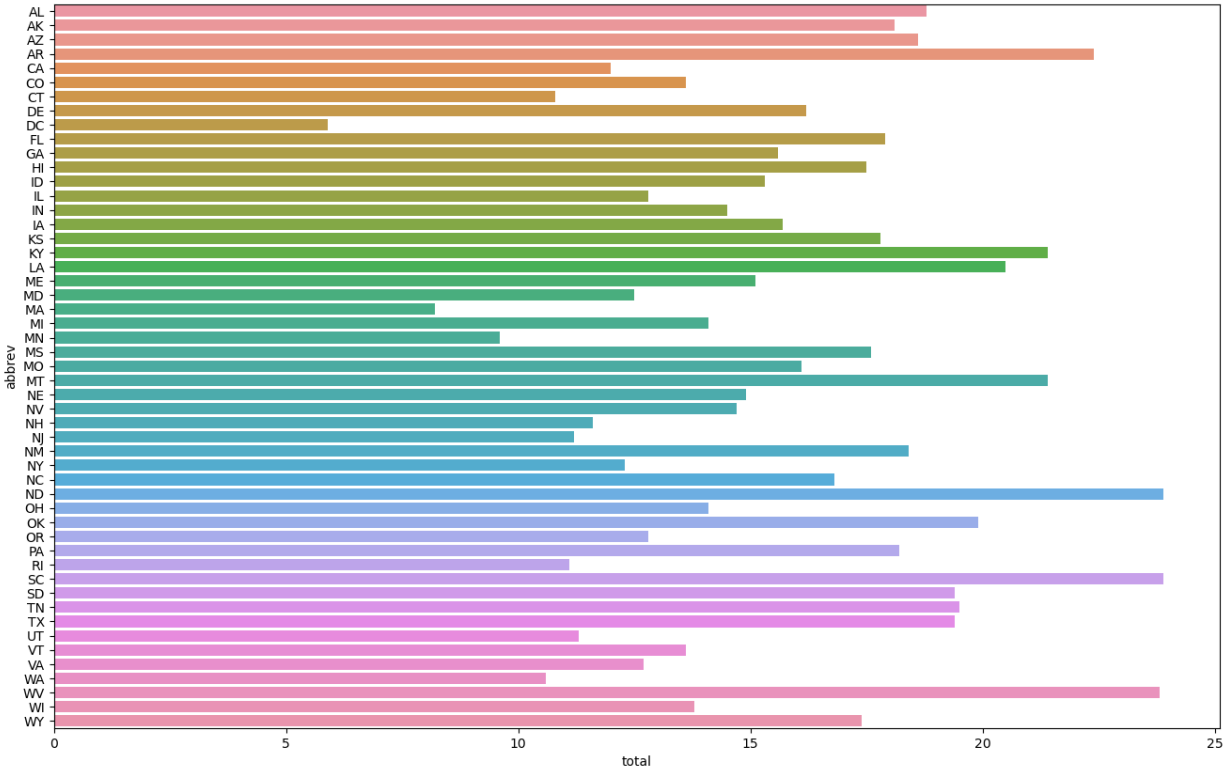
In [13]:
```
sns.lineplot(x="ins_losses",y="total",data=data)
```

Out[13]:
```
<AxesSubplot:xlabel='ins_losses', ylabel='total'>
```



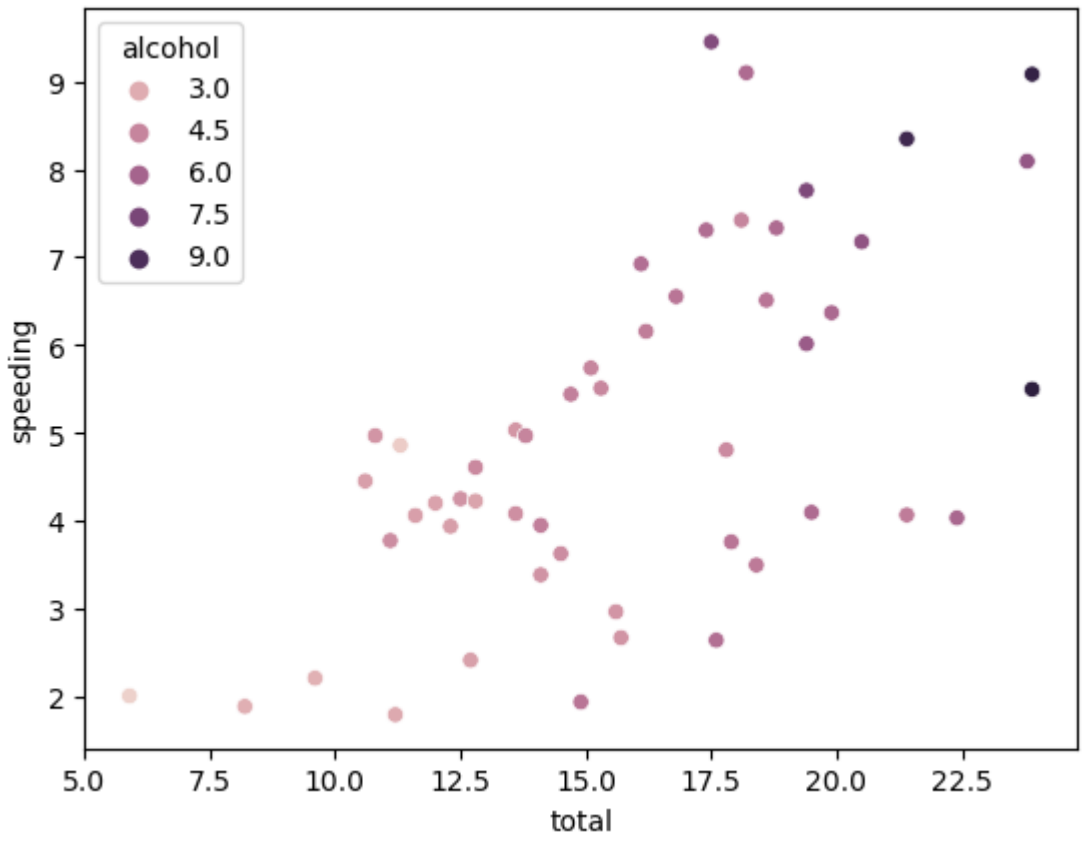
In [18]:
```
plt.subplots(figsize=(16,10))
sns.barplot(data=data,x="total",y="abbrev")
```

Out[18]:
```
<AxesSubplot:xlabel='total', ylabel='abbrev'>
```



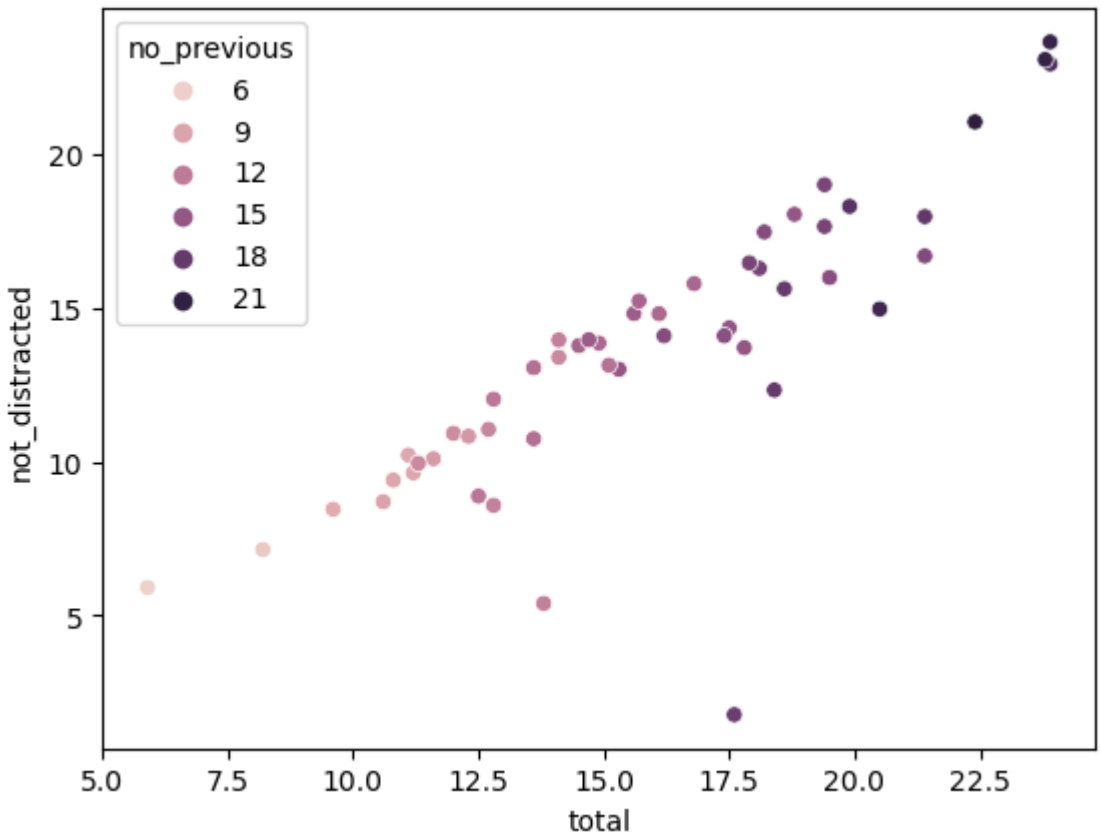
In [19]:
```
sns.scatterplot(x="total",y="speeding",data=data,hue="alcohol")
```

Out[19]: <AxesSubplot:xlabel='total', ylabel='speeding'>



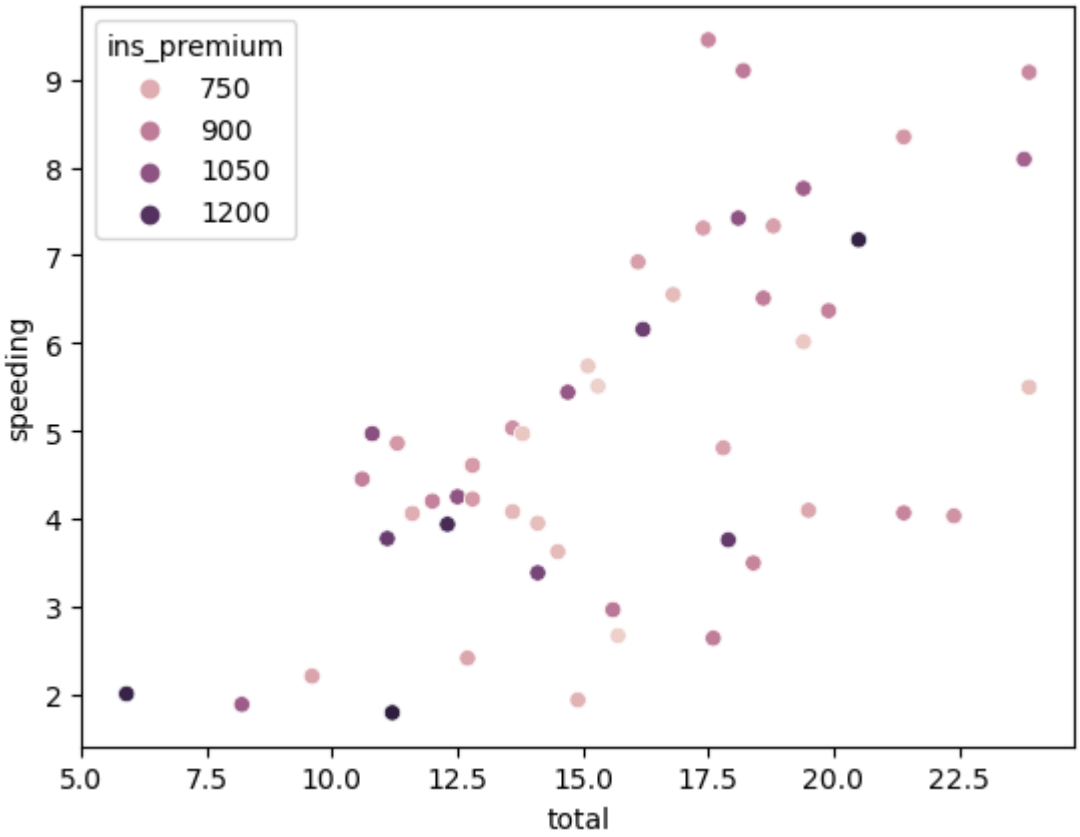
In [21]:
```
sns.scatterplot(x="total",y="not_distracted",data=data,hue="no_previous")
```

Out[21]: <AxesSubplot:xlabel='total', ylabel='not_distracted'>



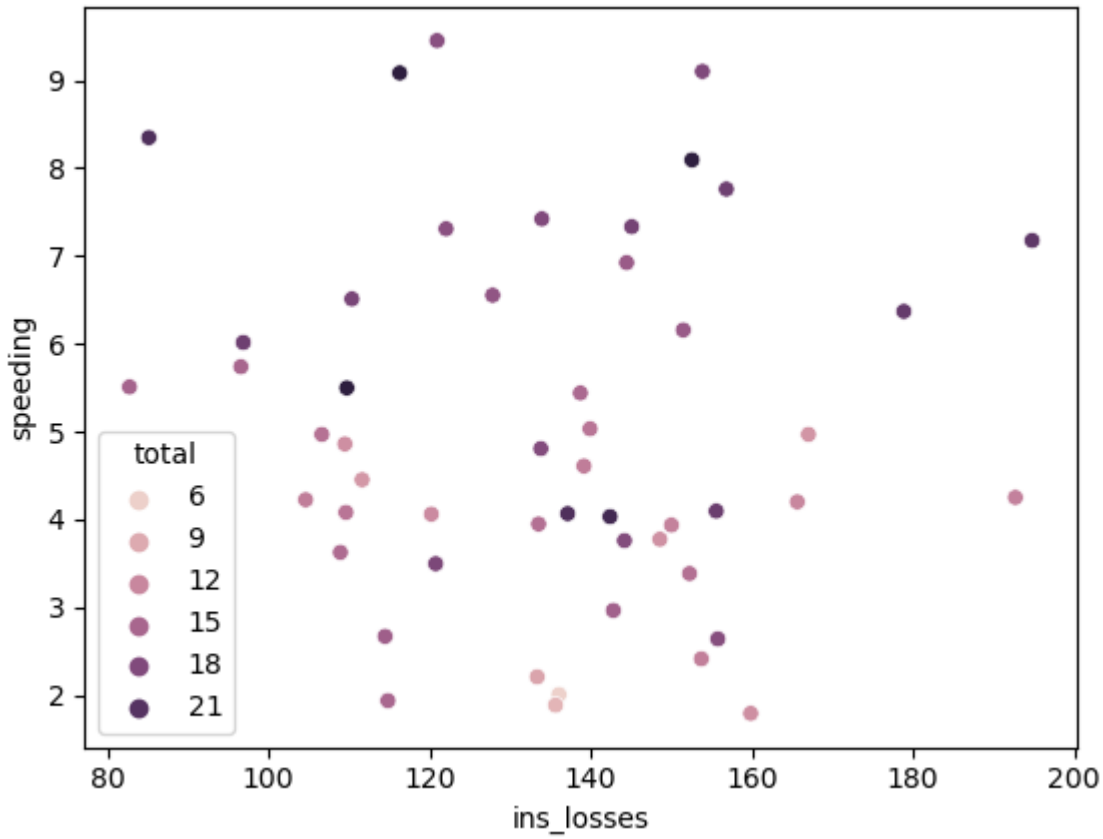
In [22]:
```
sns.scatterplot(x="total",y="speeding",data=data,hue="ins_premium")
```

Out[22]:
```
<AxesSubplot:xlabel='total', ylabel='speeding'>
```



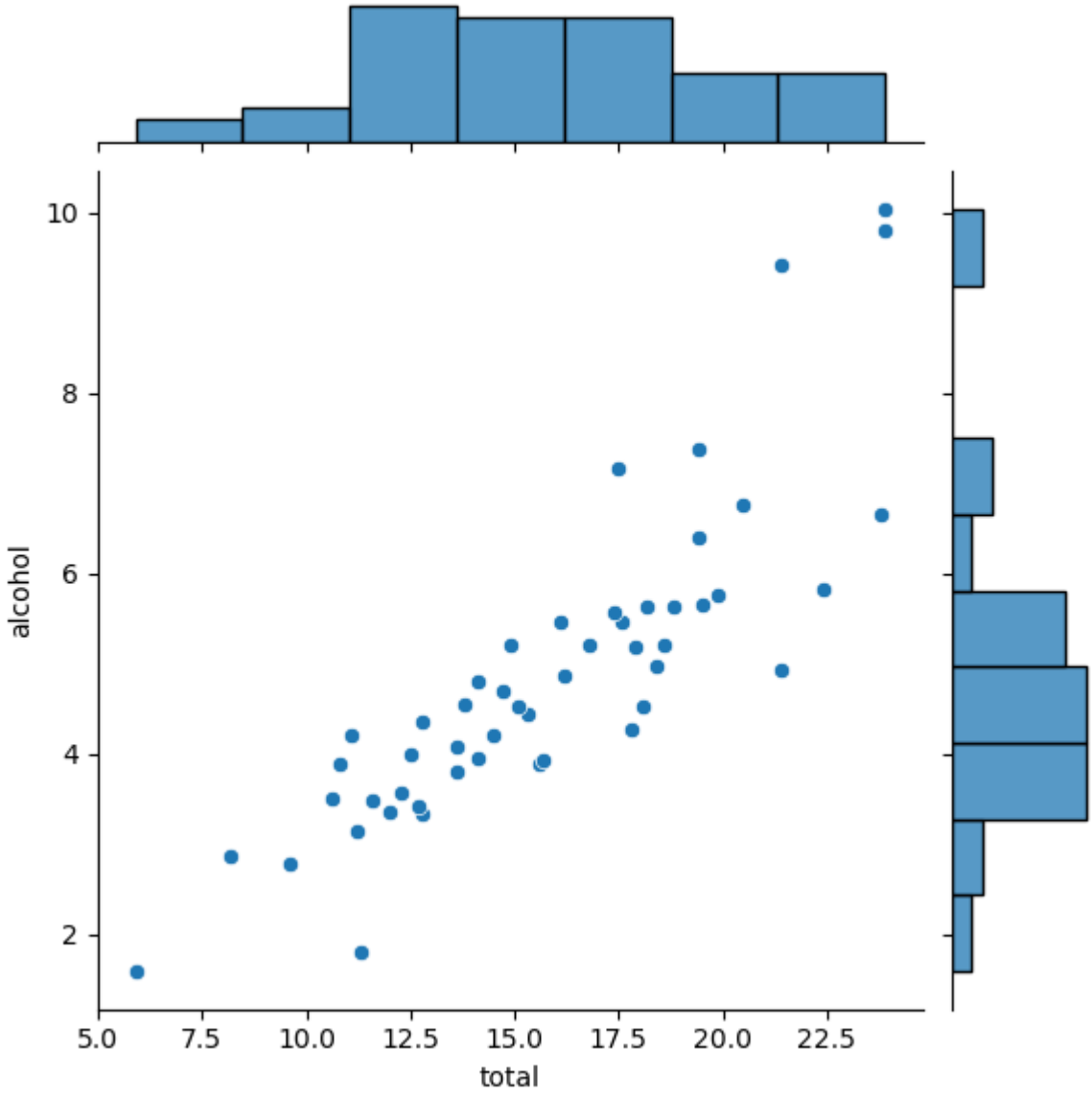
In [43]:
```
sns.scatterplot(x="ins_losses",y="speeding",data=data,hue="total")
```

Out[43]:
```
<AxesSubplot:xlabel='ins_losses', ylabel='speeding'>
```



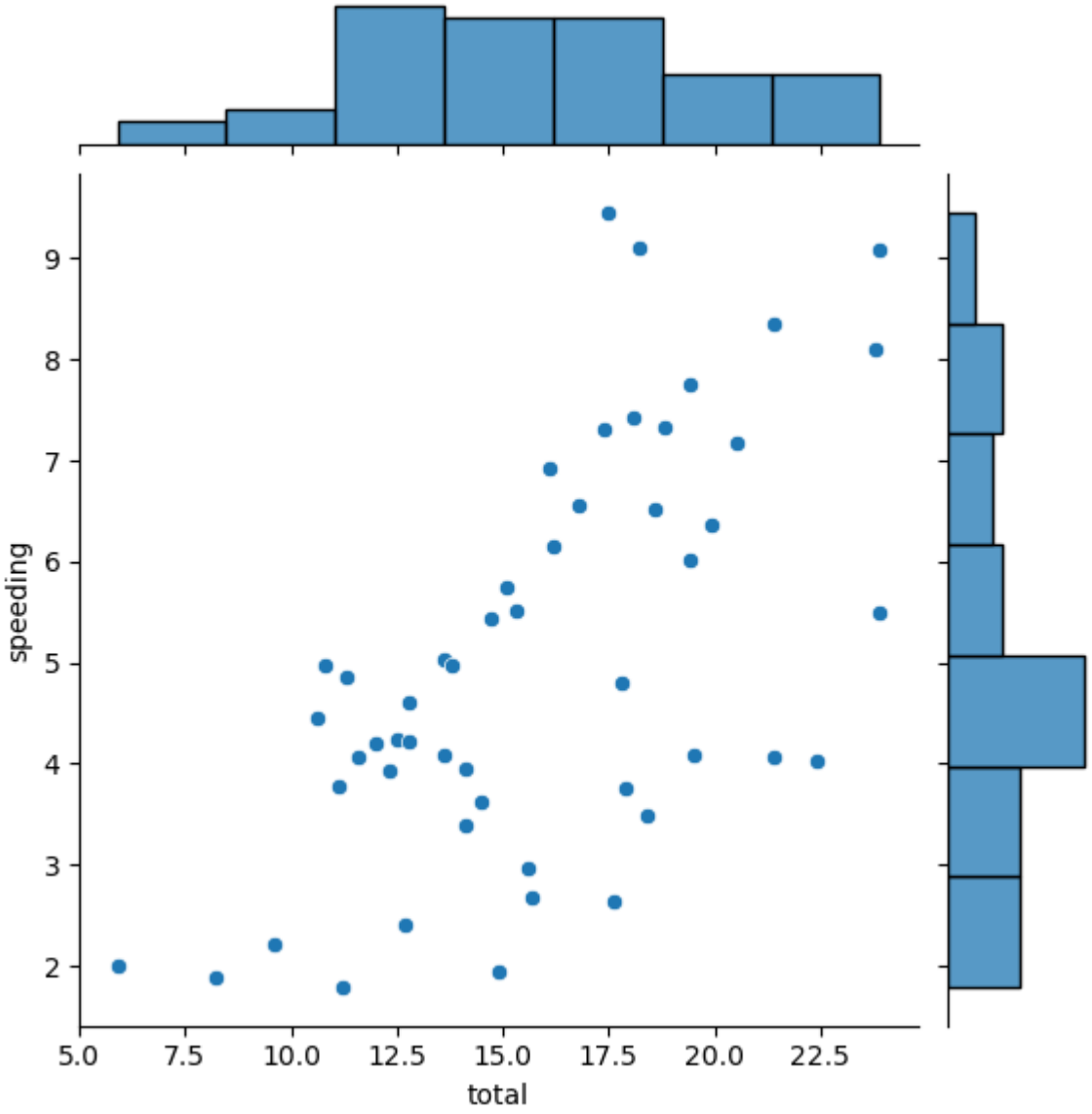
In [24]:
```
sns.jointplot(x="total",y="alcohol",data=data)
```

Out[24]:
```
<seaborn.axisgrid.JointGrid at 0x1a41fdf3fd0>
```



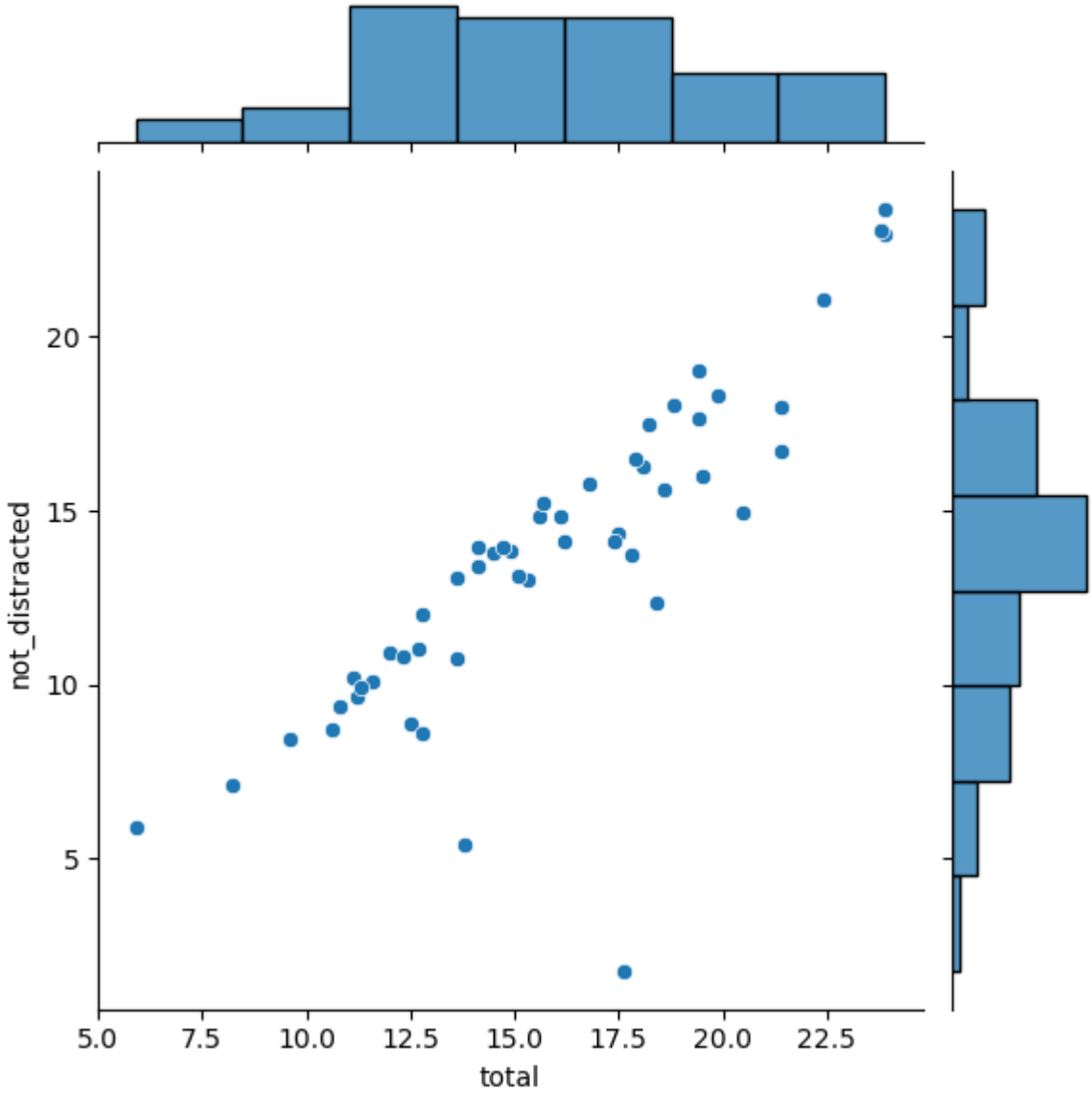
In [42]:
```
sns.jointplot(x="total",y="speeding",data=data)
```

Out[42]:
```
<seaborn.axisgrid.JointGrid at 0x1a4249b8fa0>
```



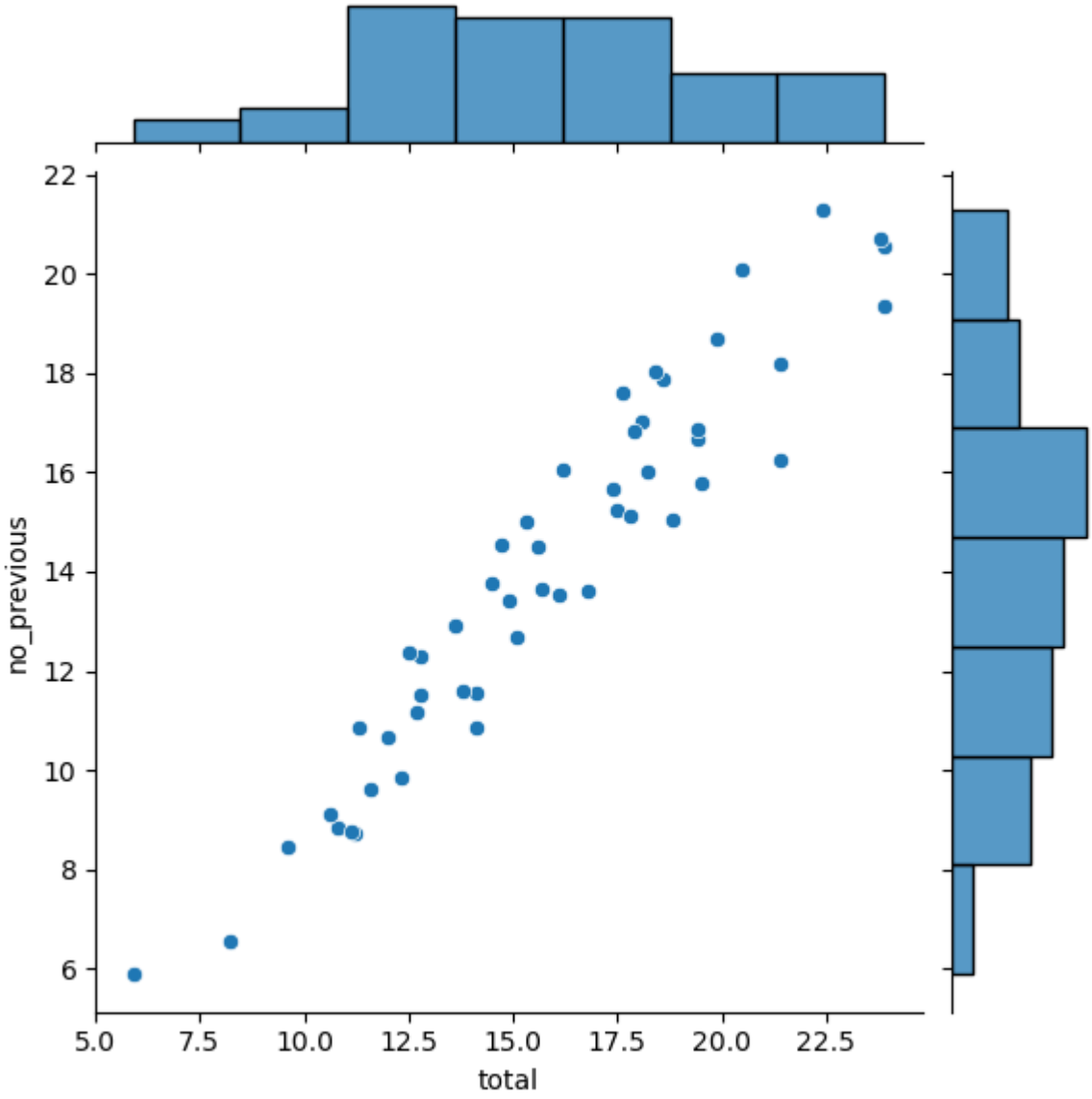
In [26]:
```
sns.jointplot(x="total",y="not_distracted",data=data)
```

Out[26]:
```
<seaborn.axisgrid.JointGrid at 0x1a420024a30>
```



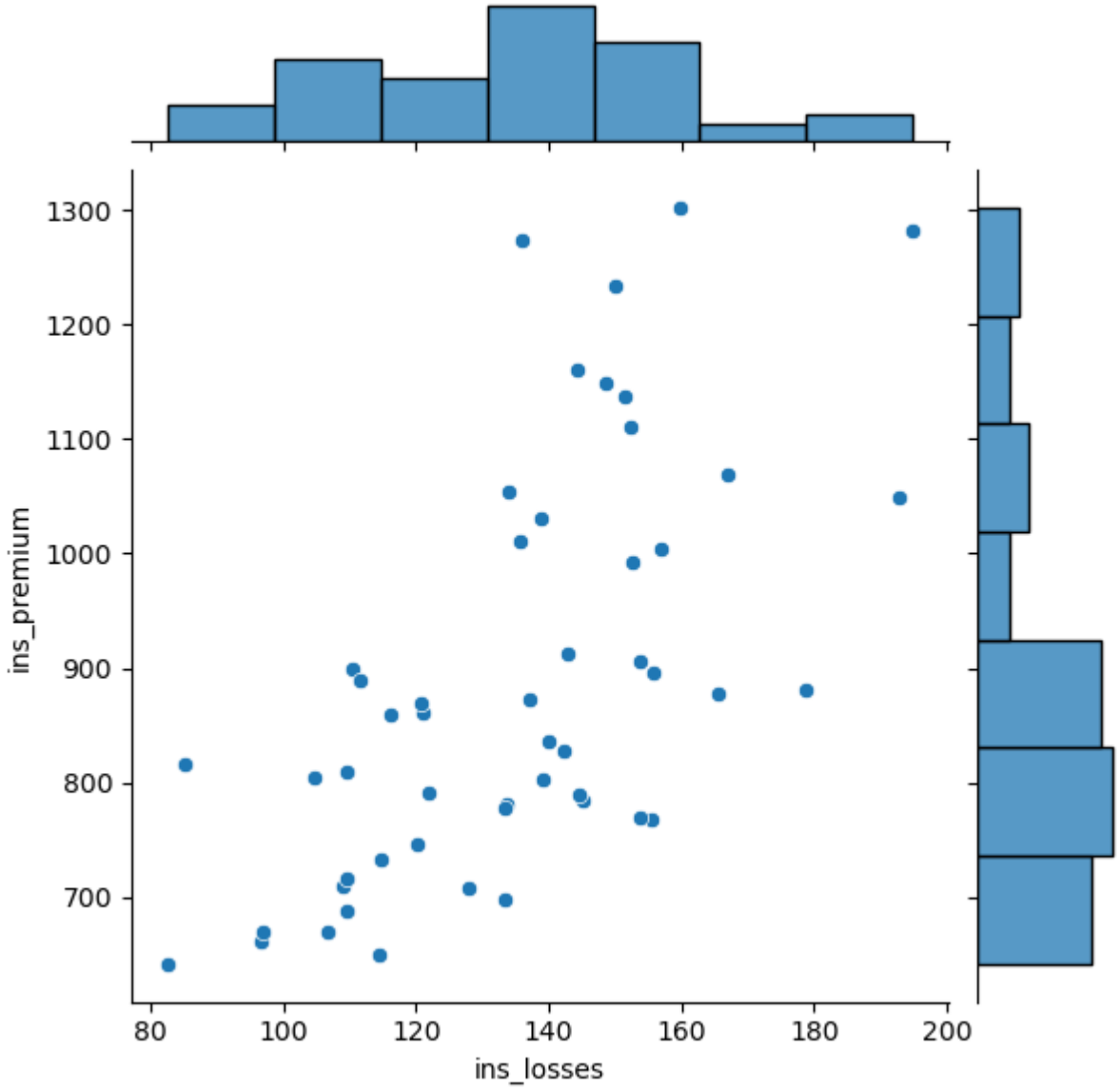
In [40]:
```
sns.jointplot(x="total",y="no_previous",data=data)
```

Out[40]:
```
<seaborn.axisgrid.JointGrid at 0x1a4241ddb80>
```



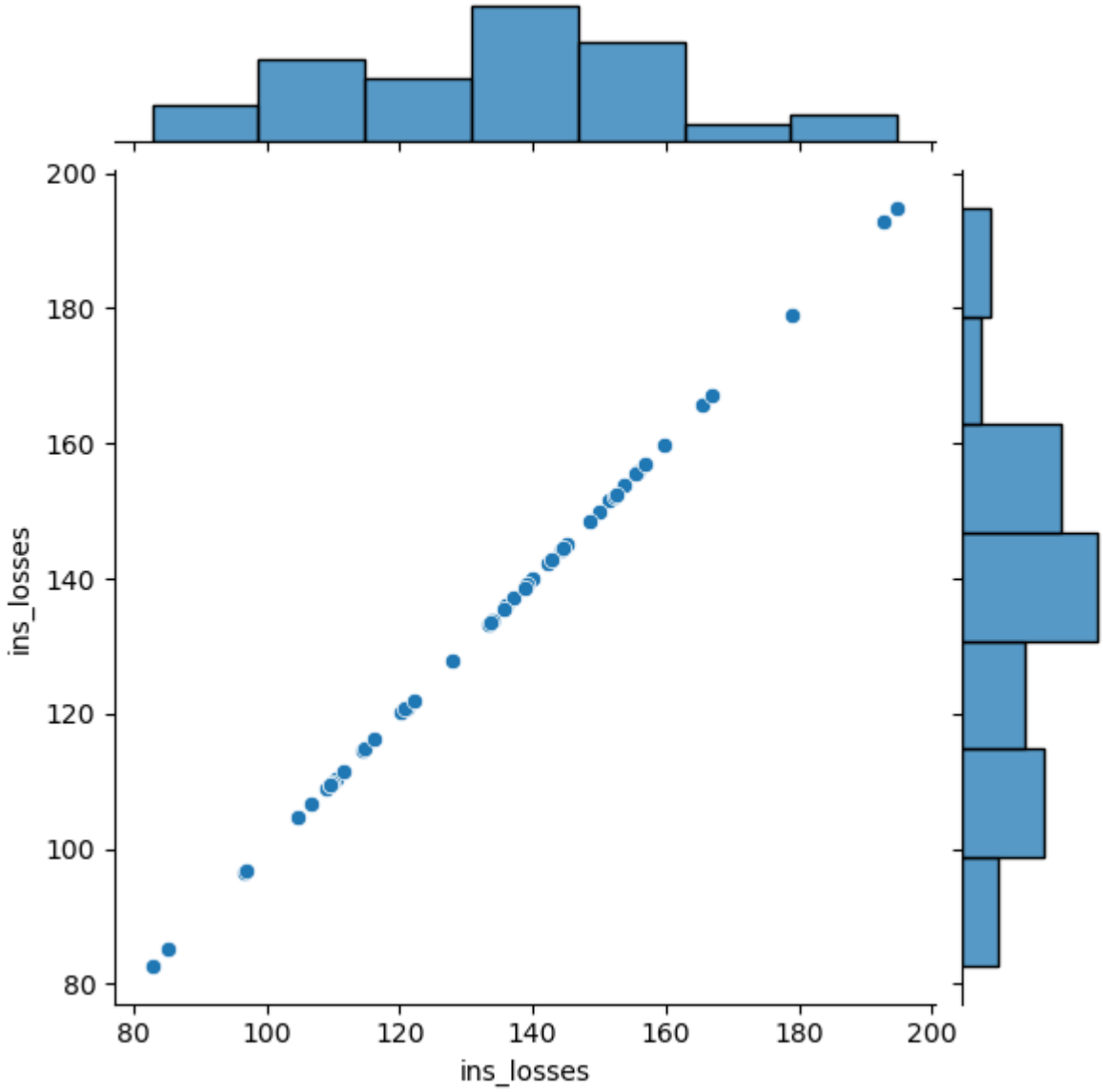
In [38]:
```
sns.jointplot(x="ins_losses",y="ins_premium",data=data)
```

Out[38]:
```
<seaborn.axisgrid.JointGrid at 0x1a4228d3280>
```



In [36]:
```
sns.jointplot(x="ins_losses",y="ins_losses",data=data)
```

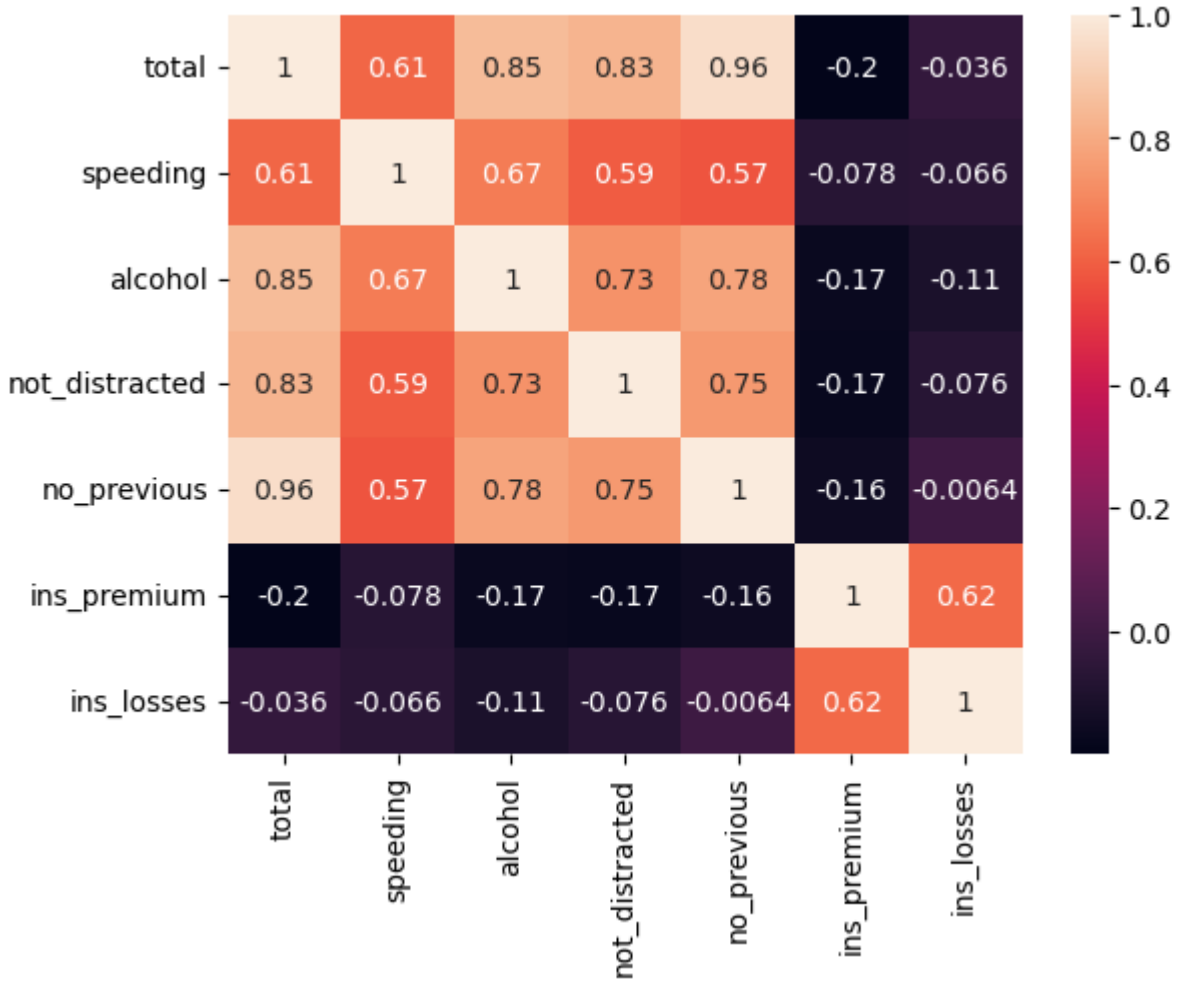
Out[36]:
```
<seaborn.axisgrid.JointGrid at 0x1a423337880>
```



In [33]:
```
corr = data.corr()
```

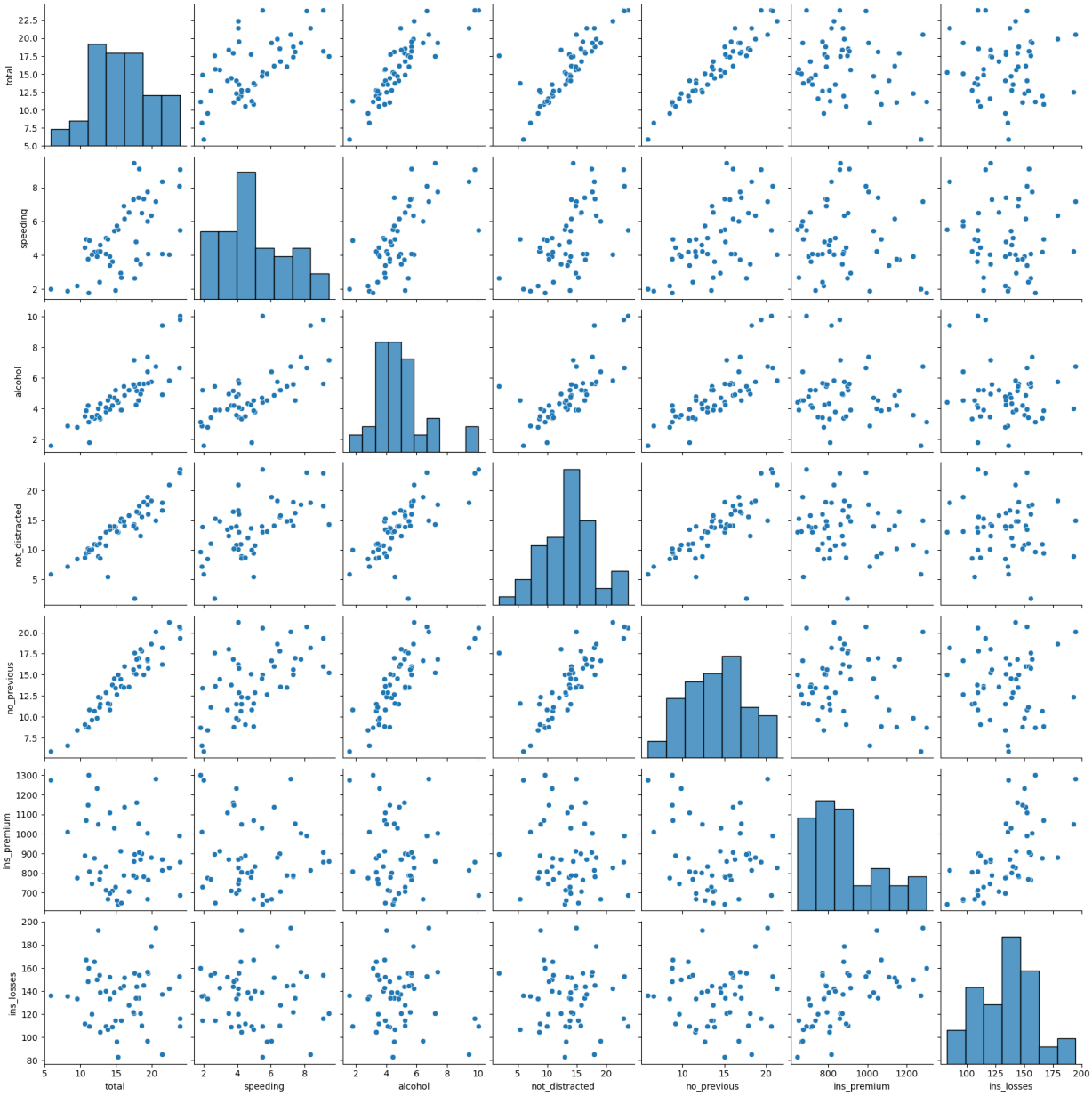
In [35]:
```
sns.heatmap(corr,annot=True)
```

Out[35]:
```
<AxesSubplot:>
```



In [47]:
```
sns.pairplot(data)
```

Out[47]:
```
<seaborn.axisgrid.PairGrid at 0x1a426278880>
```


total
speeding
alcohol
not_distracted
no_previous
ins_premium
ins_losses

In [ ]: