In [67]:
```
import pandas as pd
import seaborn as sns
import matplotlib.pyplot as plt
sns.set(color_codes=True)
%matplotlib inline
#%matplotlib inline -- to show the chart/graoh without plt.show() command
```

In [56]:
```
auto=pd.read_csv('Automobile.csv')
```

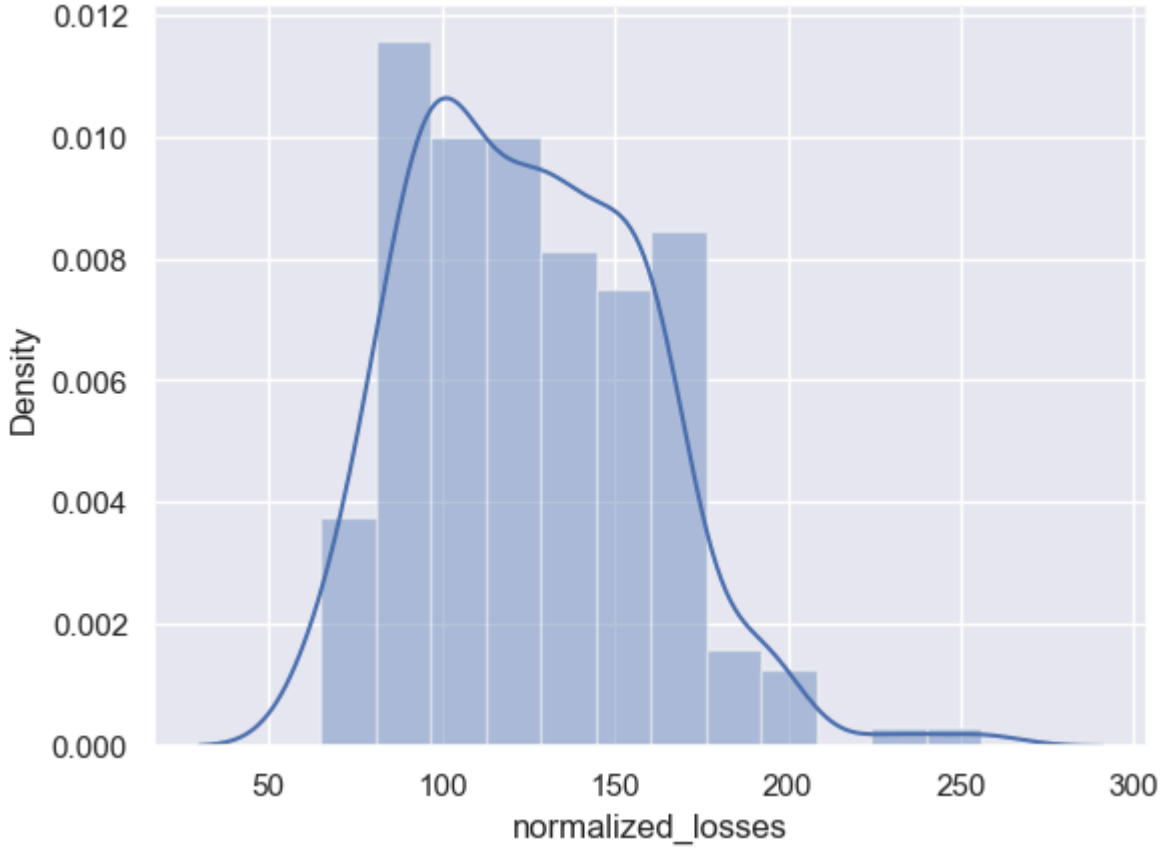
In [57]:
```
auto.head()
```

Out[57]:

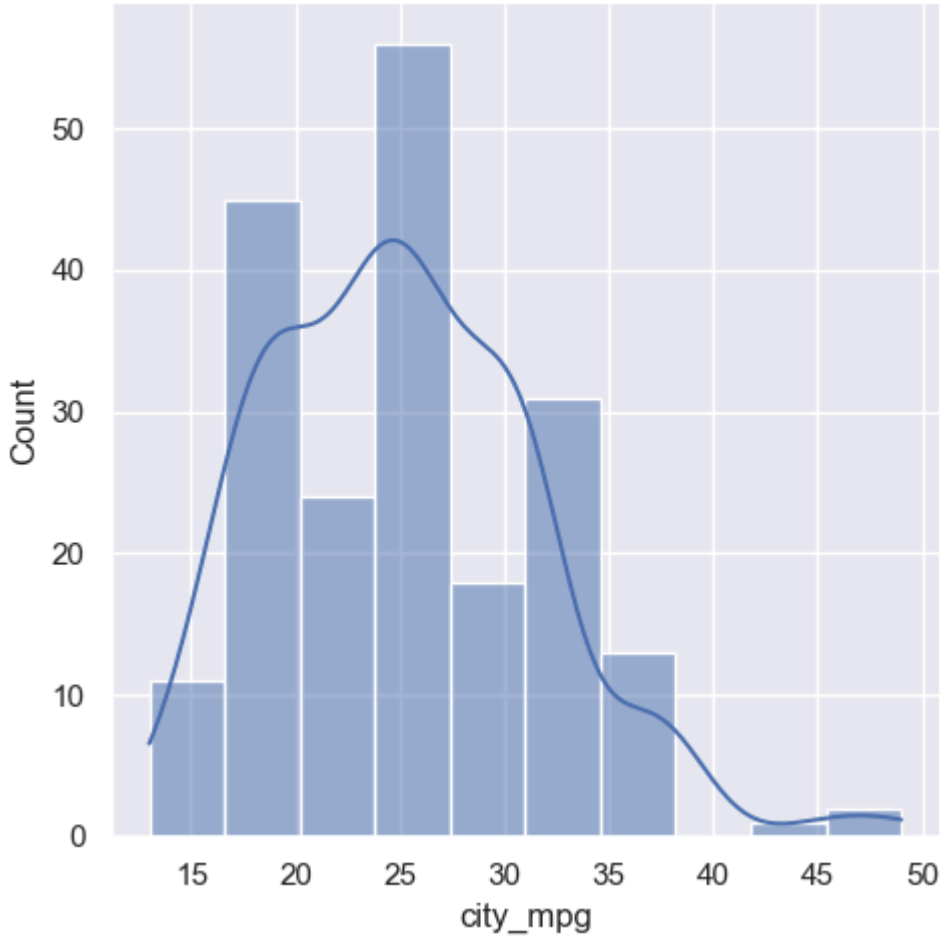
ıe	aspiration	number_of_doors	body_style	drive_wheels	engine_location	wheel_base	...	engine_size	fuel_system	bore	stroke	compre
ıs	std	two	convertible	rwd	front	88.6	...	130	mpfi	3.47	2.68	
ıs	std	two	convertible	rwd	front	88.6	...	130	mpfi	3.47	2.68	
ıs	std	two	hatchback	rwd	front	94.5	...	152	mpfi	2.68	3.47	
ıs	std	four	sedan	fwd	front	99.8	...	109	mpfi	3.19	3.40	
ıs	std	four	sedan	4wd	front	99.4	...	136	mpfi	3.19	3.40	

In [58]:
```
sns.distplot(auto['normalized_losses'])
plt.show()
```

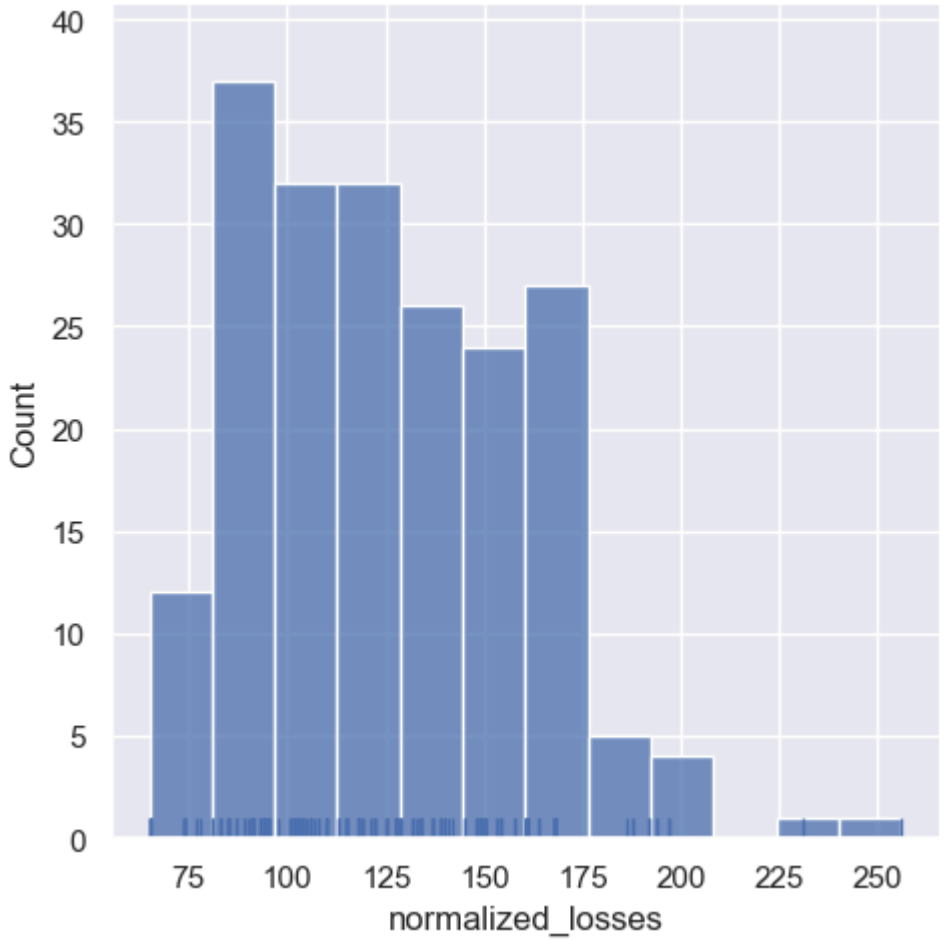
```
C:\Users\ritam\AppData\Local\Temp\ipykernel_19560\3951262698.py:1: UserWarning:

`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(auto['normalized_losses'])
```



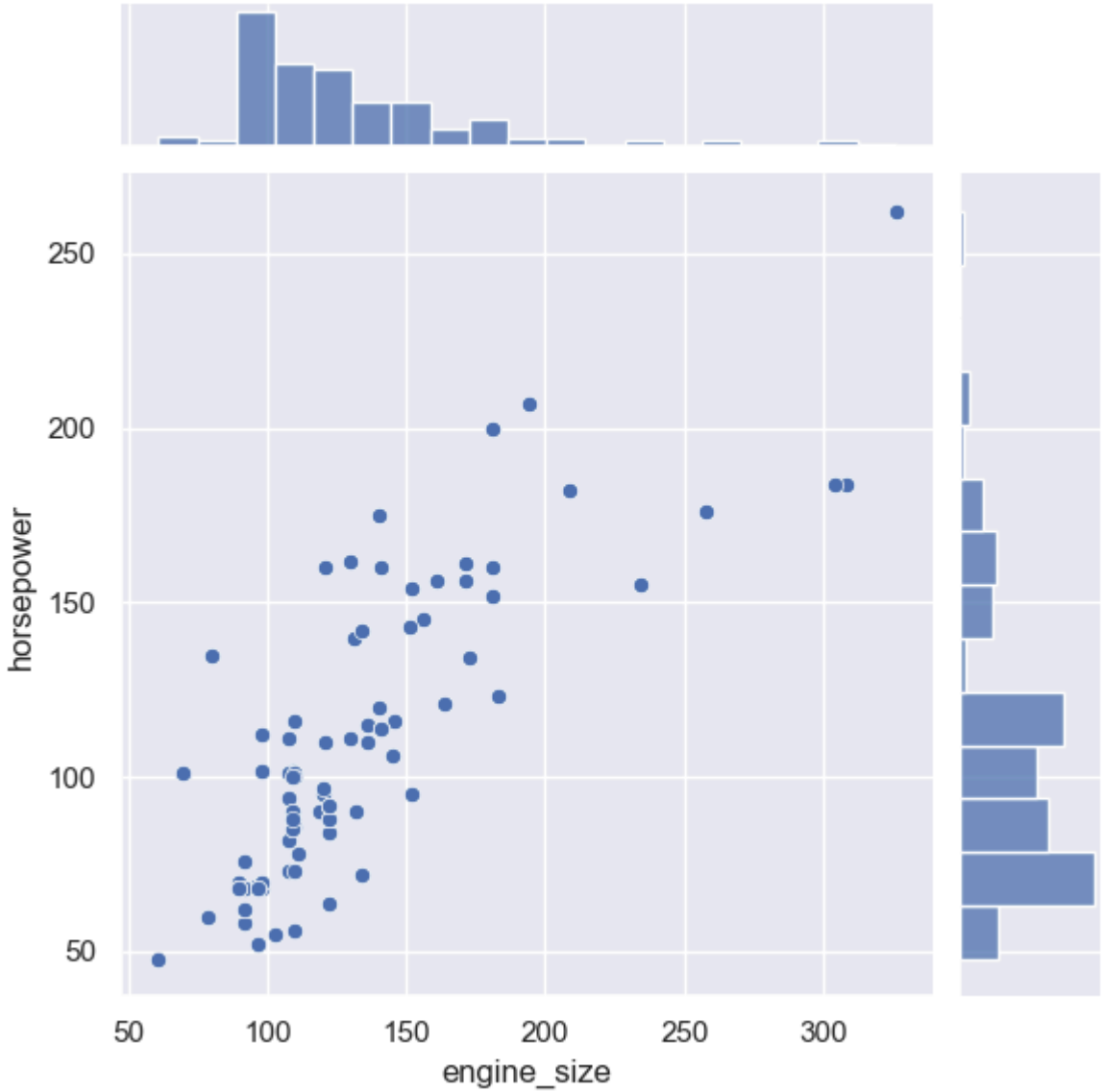
In [59]:
```
sns.displot(auto['city_mpg'],kde=True)
plt.show()
```



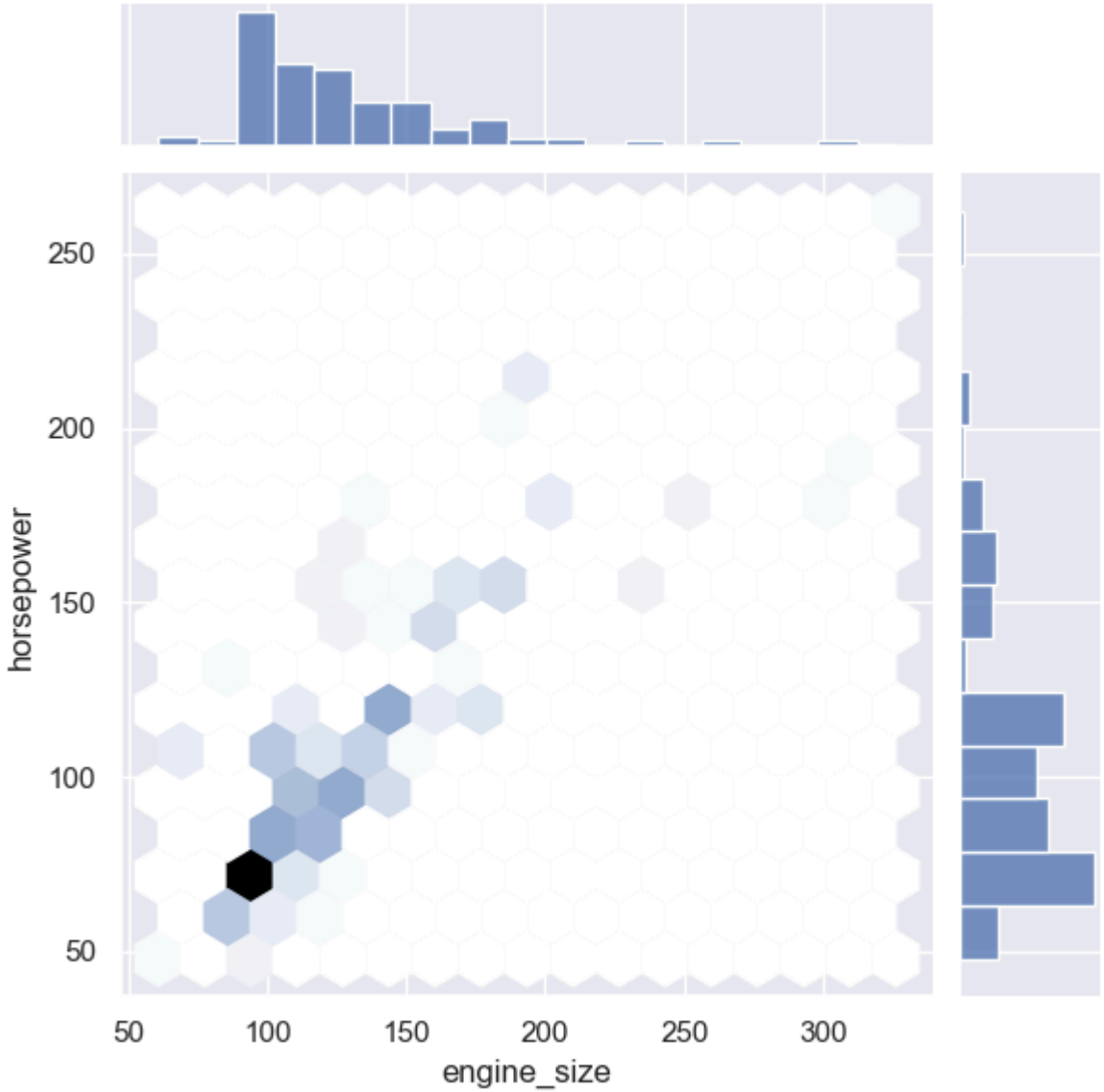
In [60]:
```
sns.displot(auto['normalized_losses'],kde=False,rug=True)
plt.show()
```



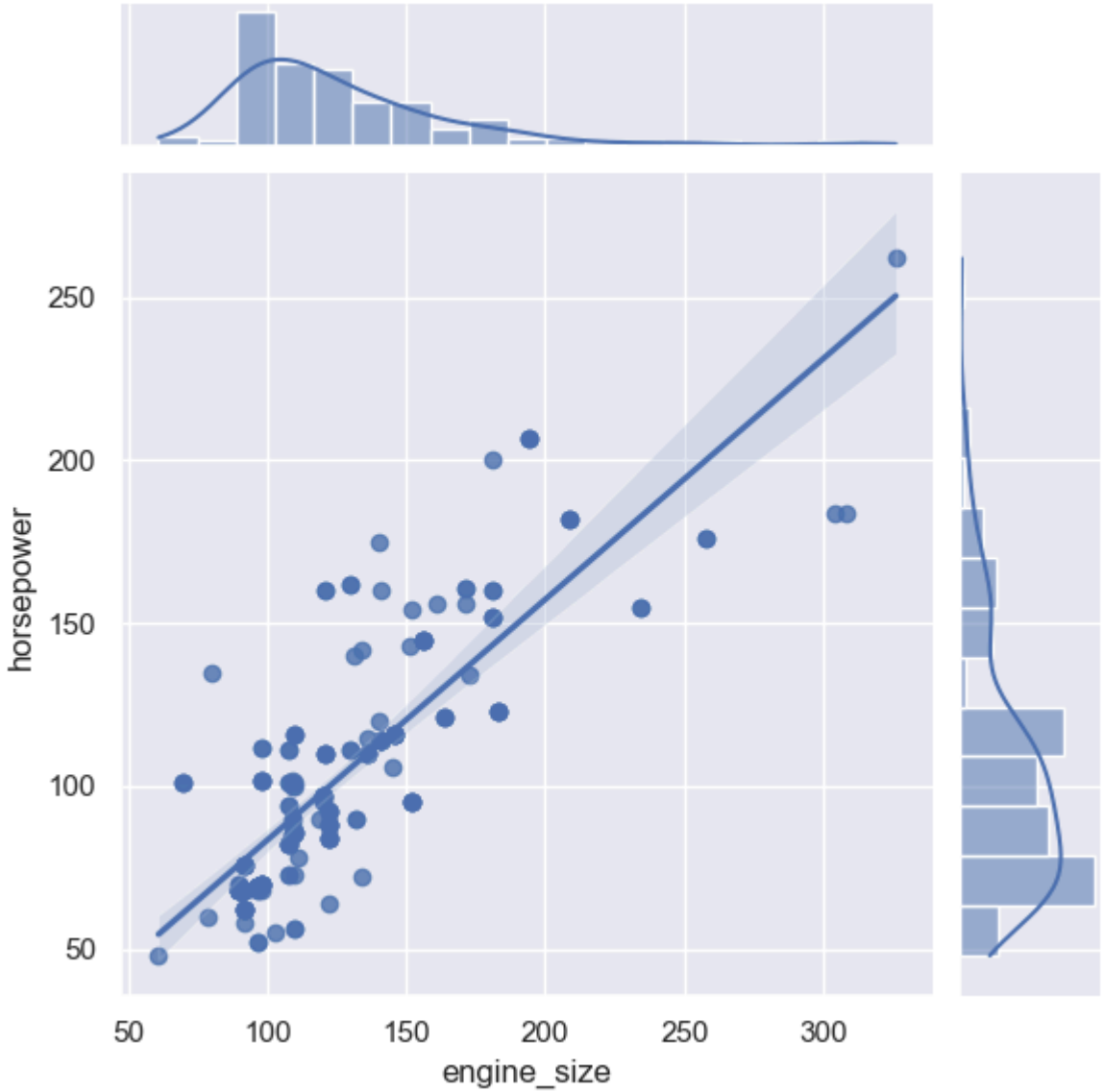
In [61]:
```
sns.jointplot( x=auto['engine_size'], y=auto['horsepower'])
plt.show()
```



In [62]:
```
sns.jointplot( x=auto['engine_size'], y=auto['horsepower'],kind="hex")
plt.show()
```

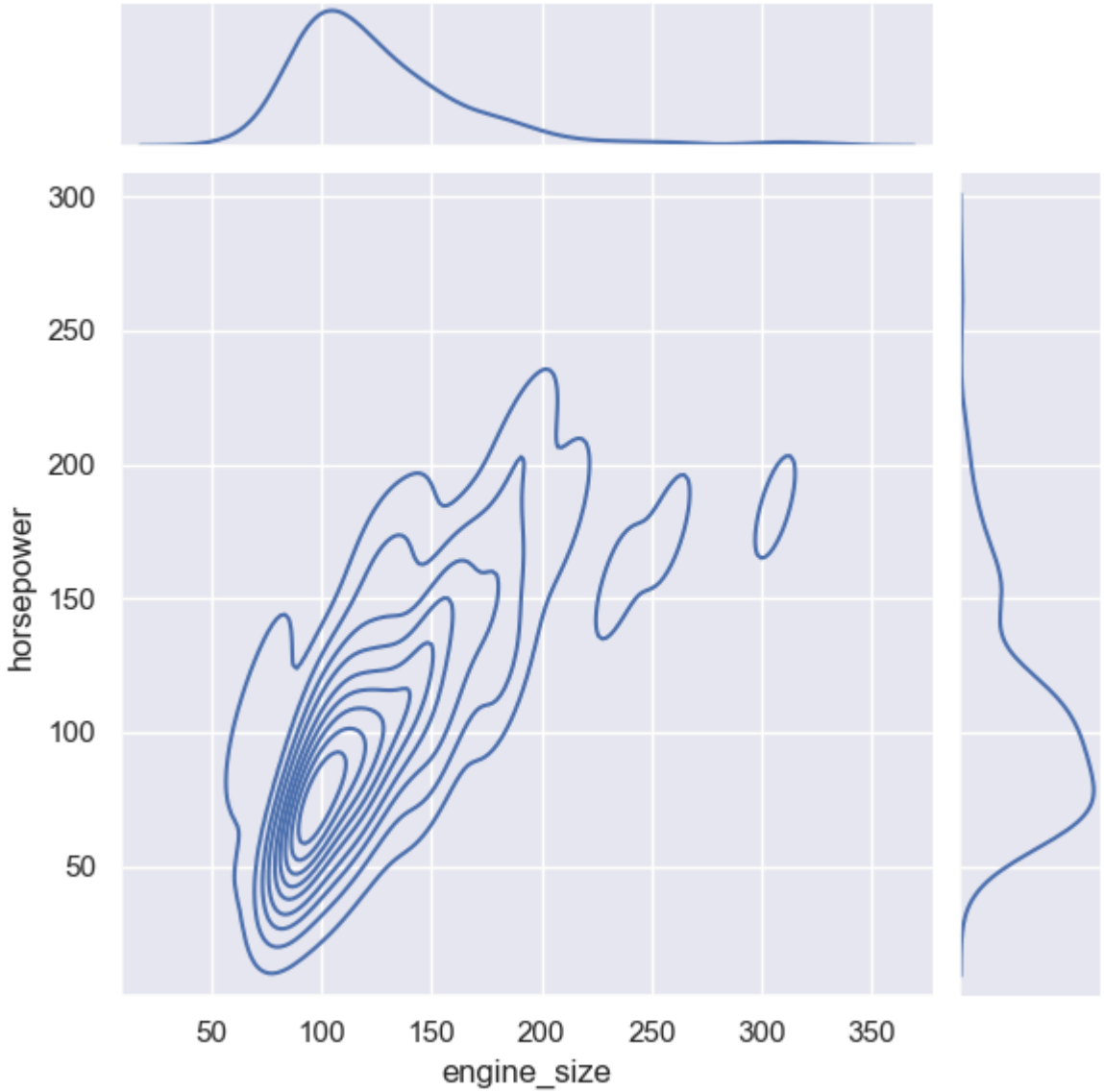


In [63]:
```
sns.jointplot( x=auto['engine_size'], y=auto['horsepower'],kind="reg")
plt.show()
```



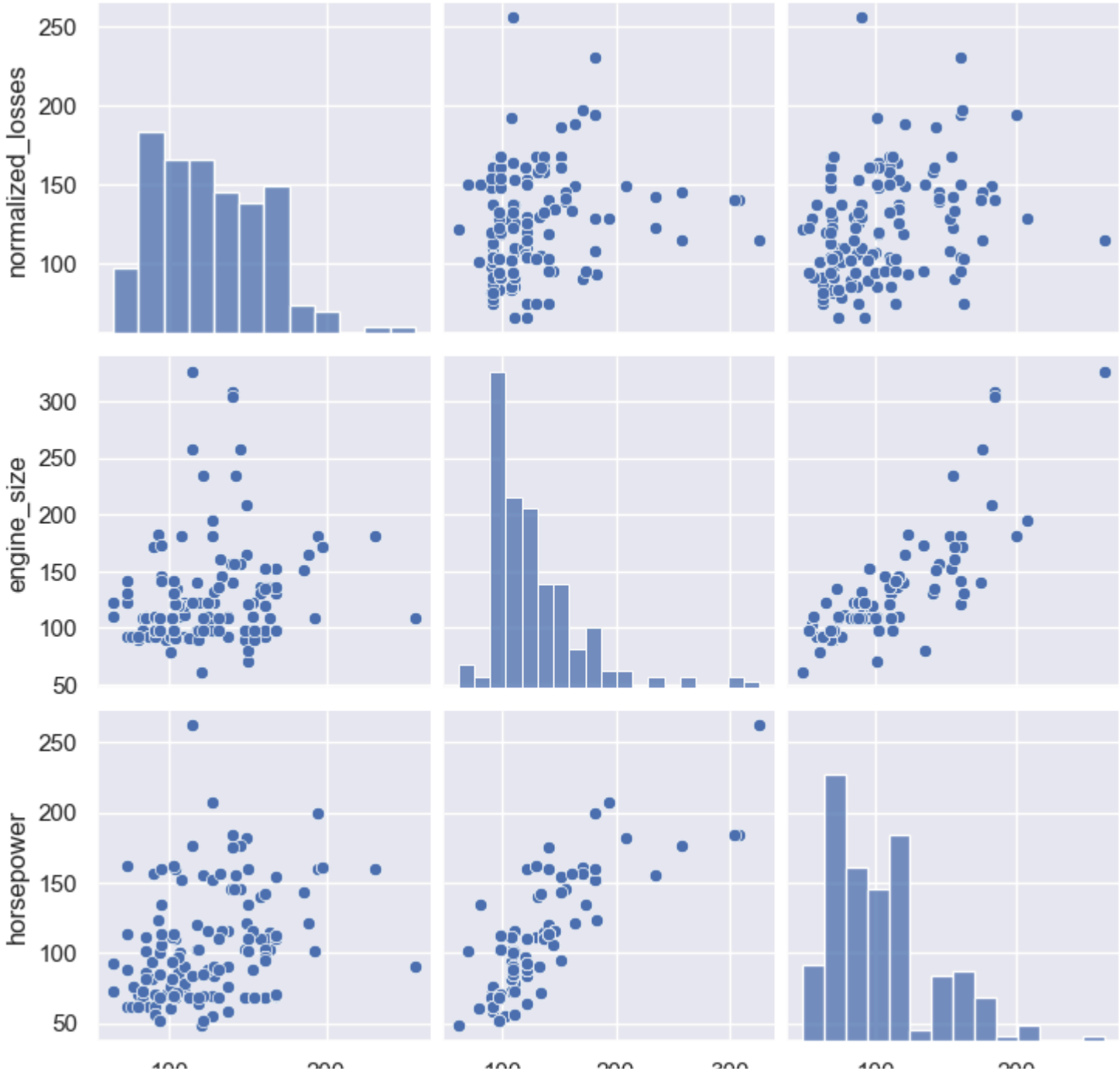
In [64]:
```
sns.jointplot( x=auto['engine_size'], y=auto['horsepower'],kind="kde")
```

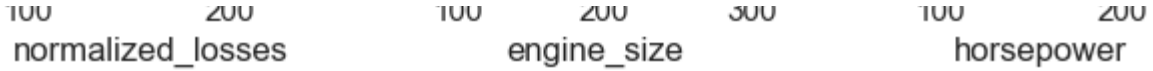
Out[64]:
```
<seaborn.axisgrid.JointGrid at 0x2e12afc8980>
```



In [73]:
```
sns.pairplot( auto[['normalized_losses','engine_size','horsepower']])
```

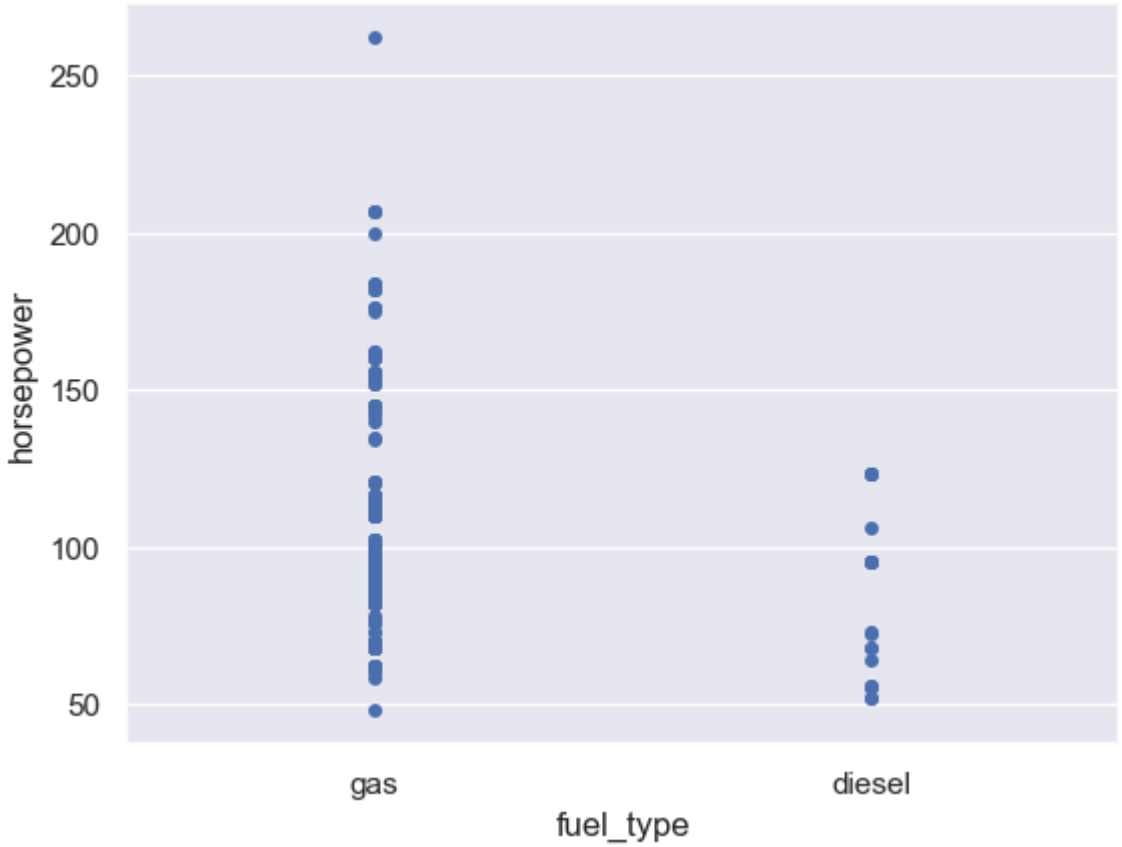
Out[73]:
```
<seaborn.axisgrid.PairGrid at 0x2e124a43ef0>
```


normalized_losses
engine_size
horsepower
250
200
150
100
300
250
200
150
100
50
250
200
150
100
50



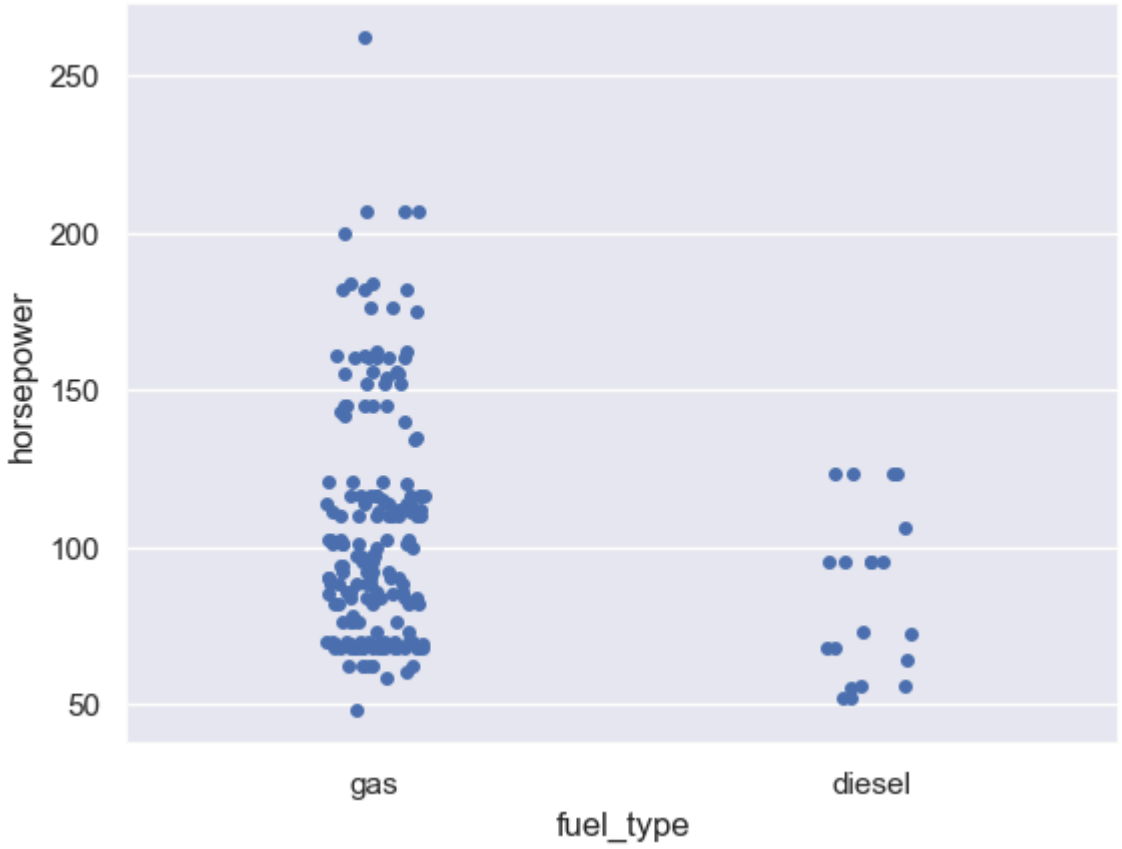
In [77]:
```
sns.stripplot(x=auto['fuel_type'],y=auto['horsepower'],jitter=False)
```

Out[77]: <Axes: xlabel='fuel_type', ylabel='horsepower'>



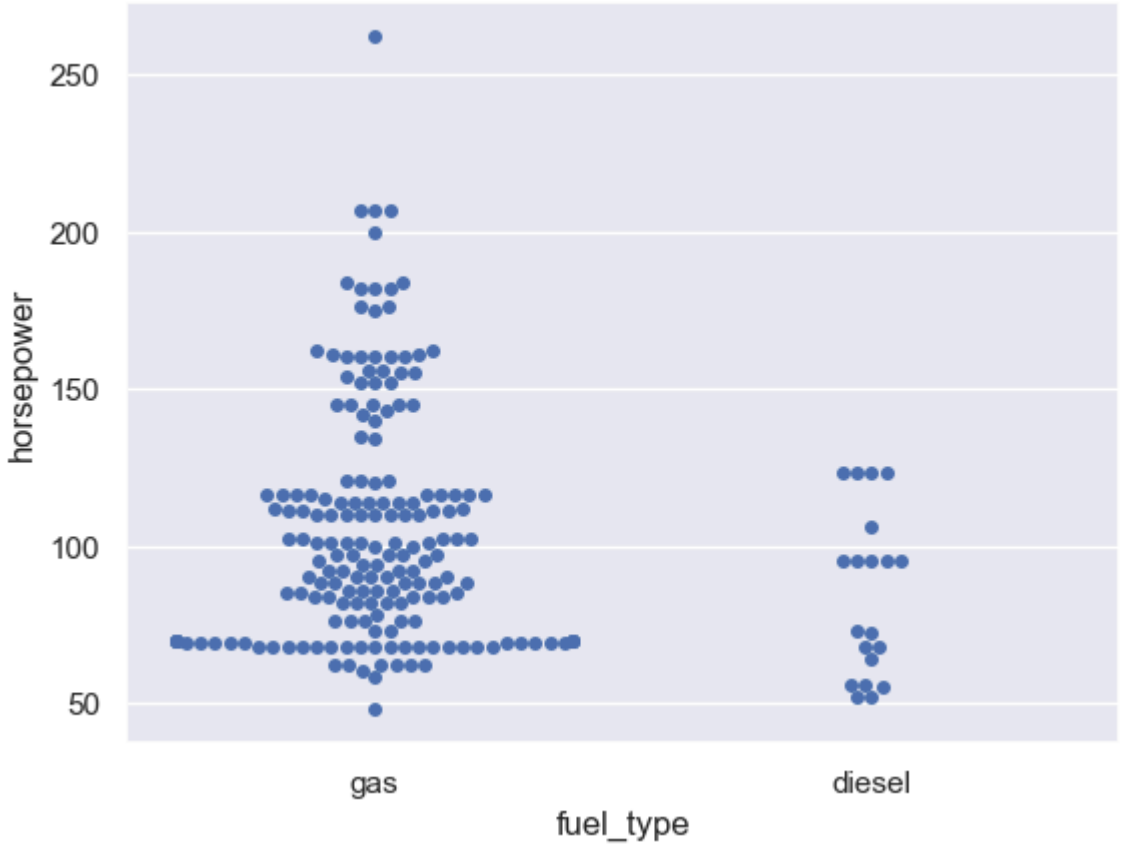
In [78]:
```
sns.stripplot(x=auto['fuel_type'],y=auto['horsepower'],jitter=True)
```

Out[78]: <Axes: xlabel='fuel_type', ylabel='horsepower'>



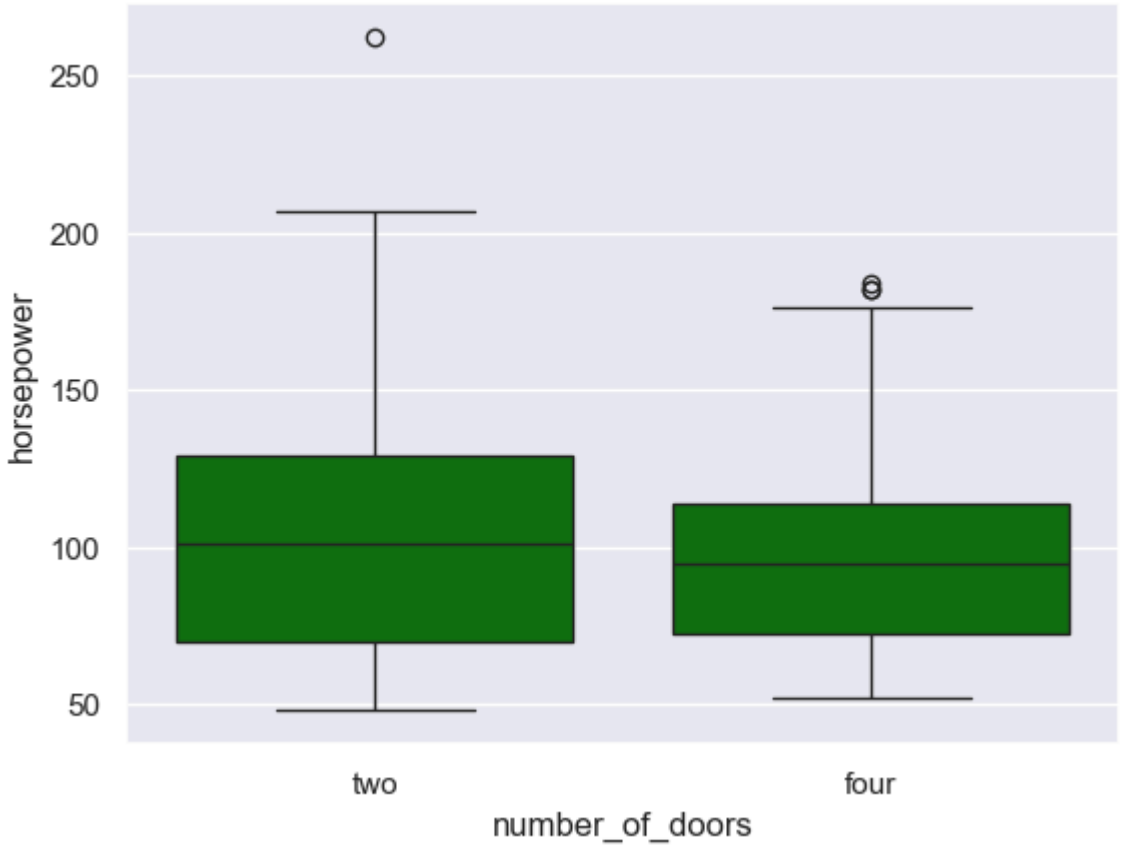
In [80]:
```
sns.swarmplot(x=auto['fuel_type'],y=auto['horsepower'])
```

Out[80]:
```
<Axes: xlabel='fuel_type', ylabel='horsepower'>
```



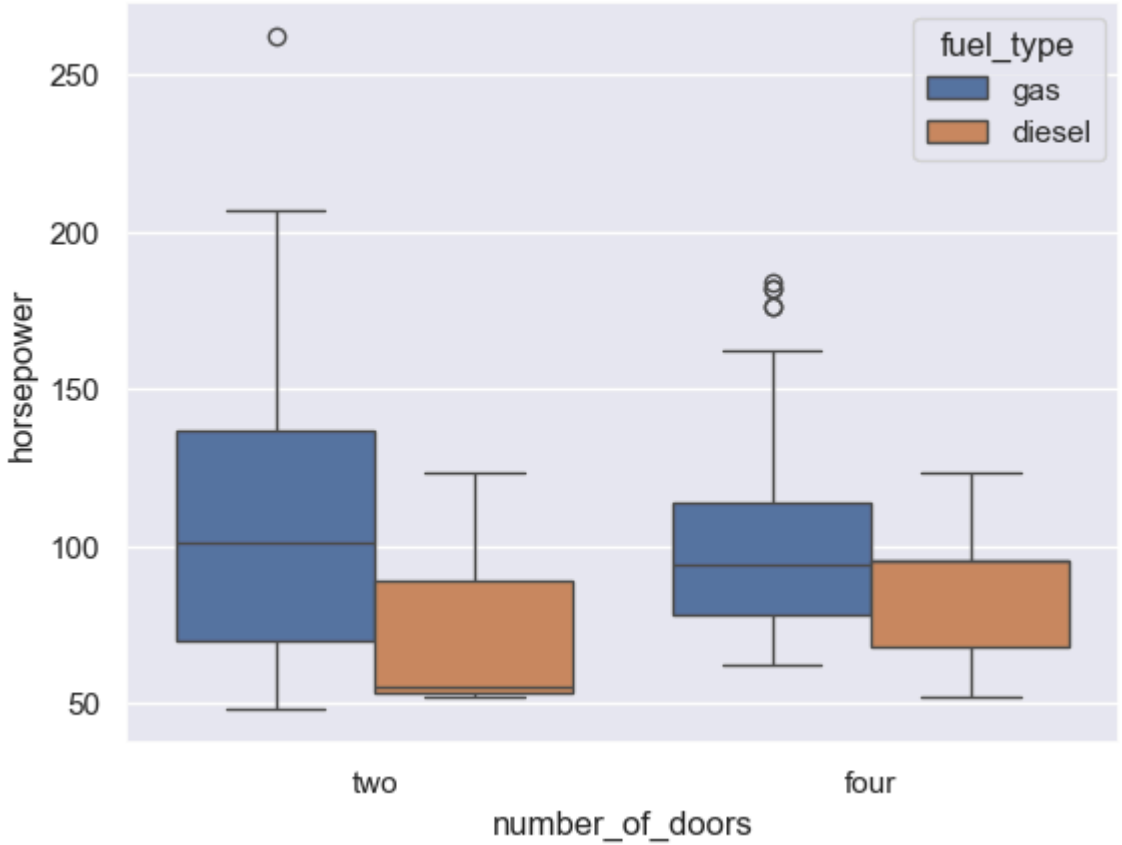
In [95]:
```
sns.boxplot(x=auto['number_of_doors'],y=auto['horsepower'],color='green')
```

Out[95]:
```
<Axes: xlabel='number_of_doors', ylabel='horsepower'>
```



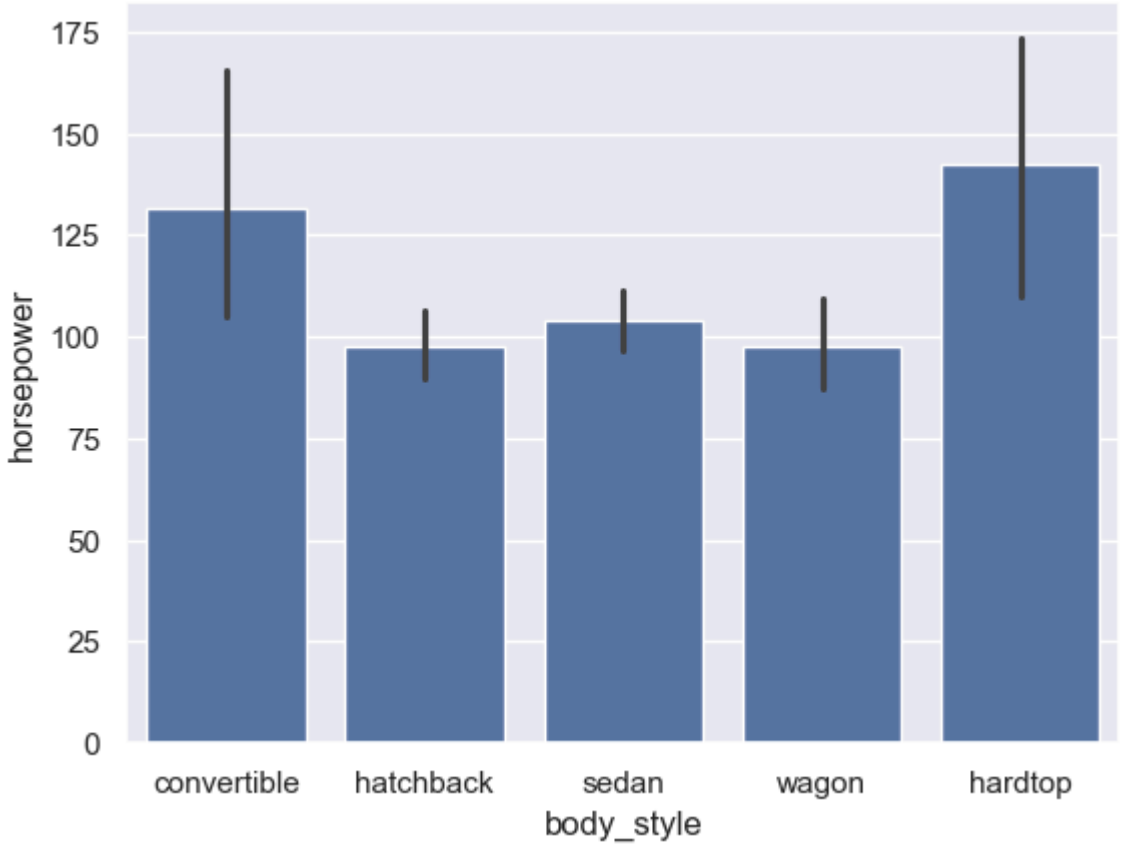
In [96]:
```
sns.boxplot(x=auto['number_of_doors'],y=auto['horsepower'],hue=auto['fuel_type'])
```

Out[96]:
```
<Axes: xlabel='number_of_doors', ylabel='horsepower'>
```



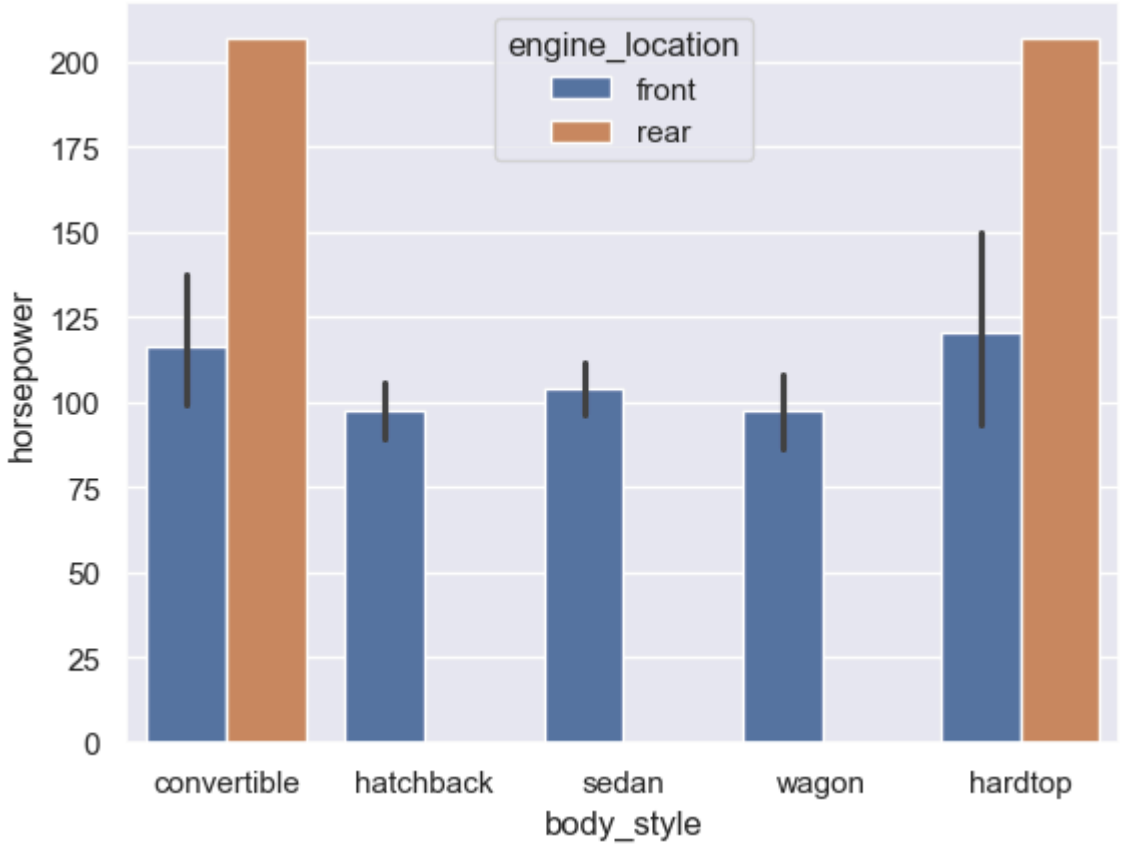
In [97]:
```
sns.barplot(x=auto['body_style'],y=auto['horsepower'])
```

Out[97]:
```
<Axes: xlabel='body_style', ylabel='horsepower'>
```



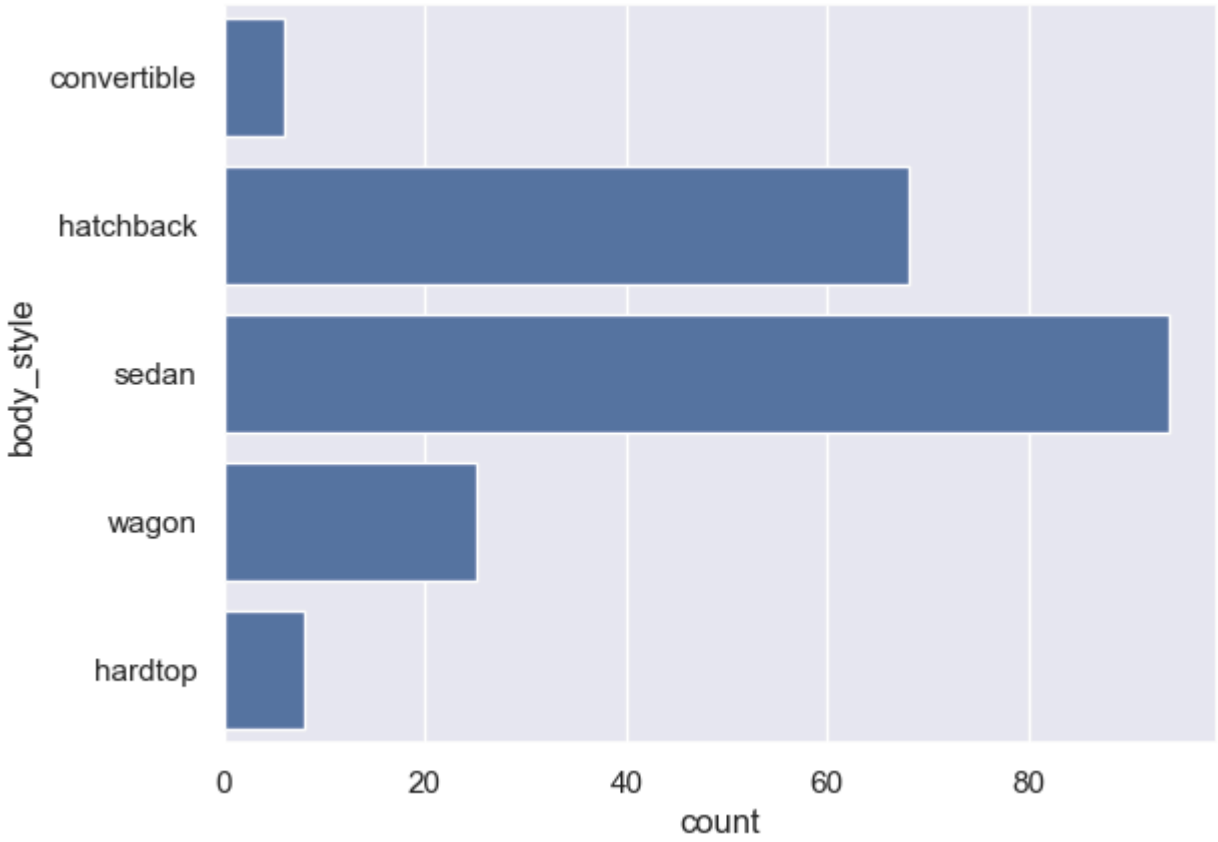
In [98]:
```
sns.barplot(x=auto['body_style'],y=auto['horsepower'],hue=auto['engine_location'])
```

Out[98]:
```
<Axes: xlabel='body_style', ylabel='horsepower'>
```



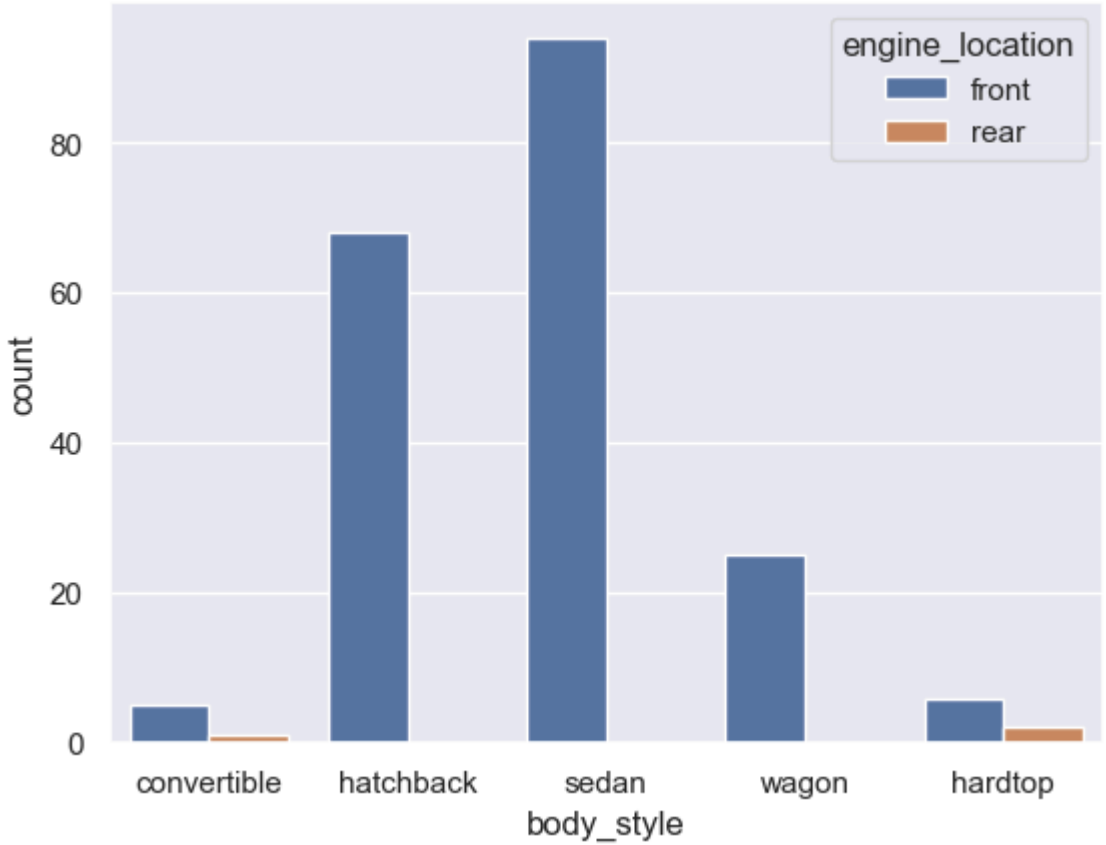
In [99]:
```
sns.countplot(auto['body_style'])
```

Out[99]:
```
<Axes: xlabel='count', ylabel='body_style'>
```



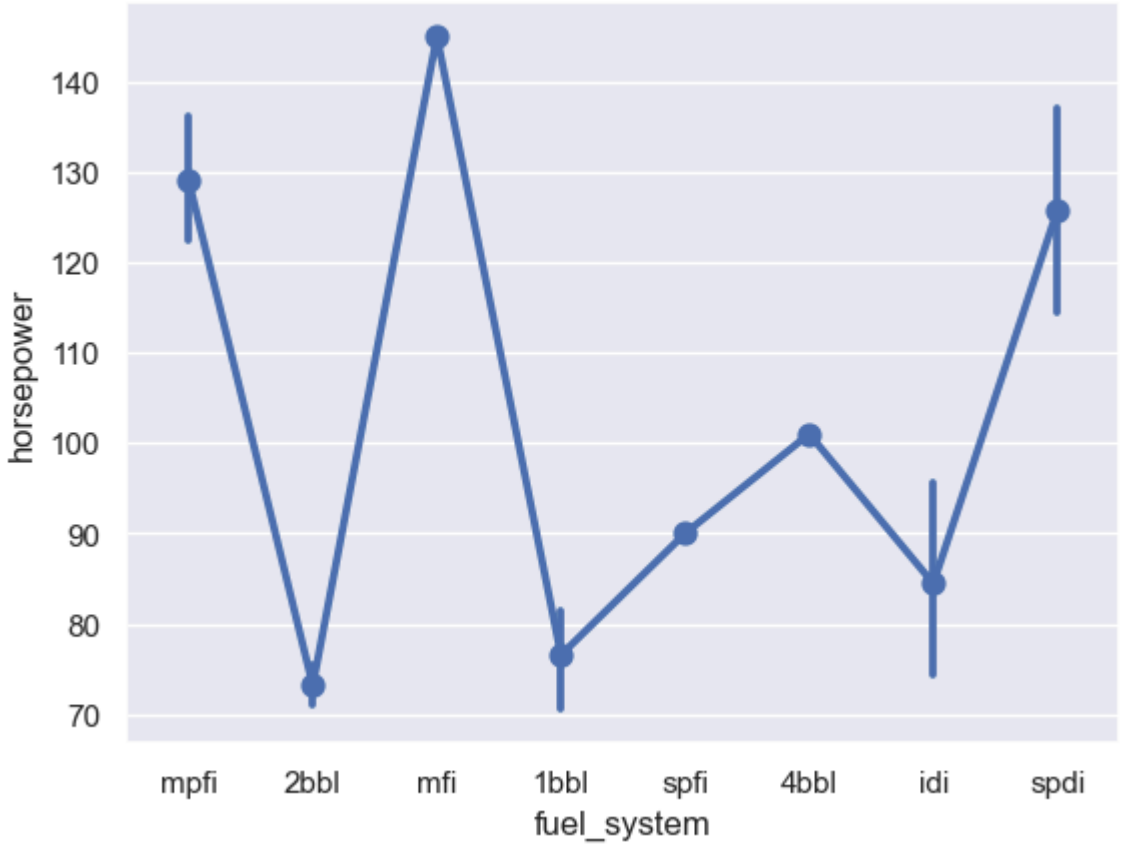
In [104…
```
sns.countplot(x=auto['body_style'],hue=auto['engine_location'])
```

Out[104…
```
<Axes: xlabel='body_style', ylabel='count'>
```



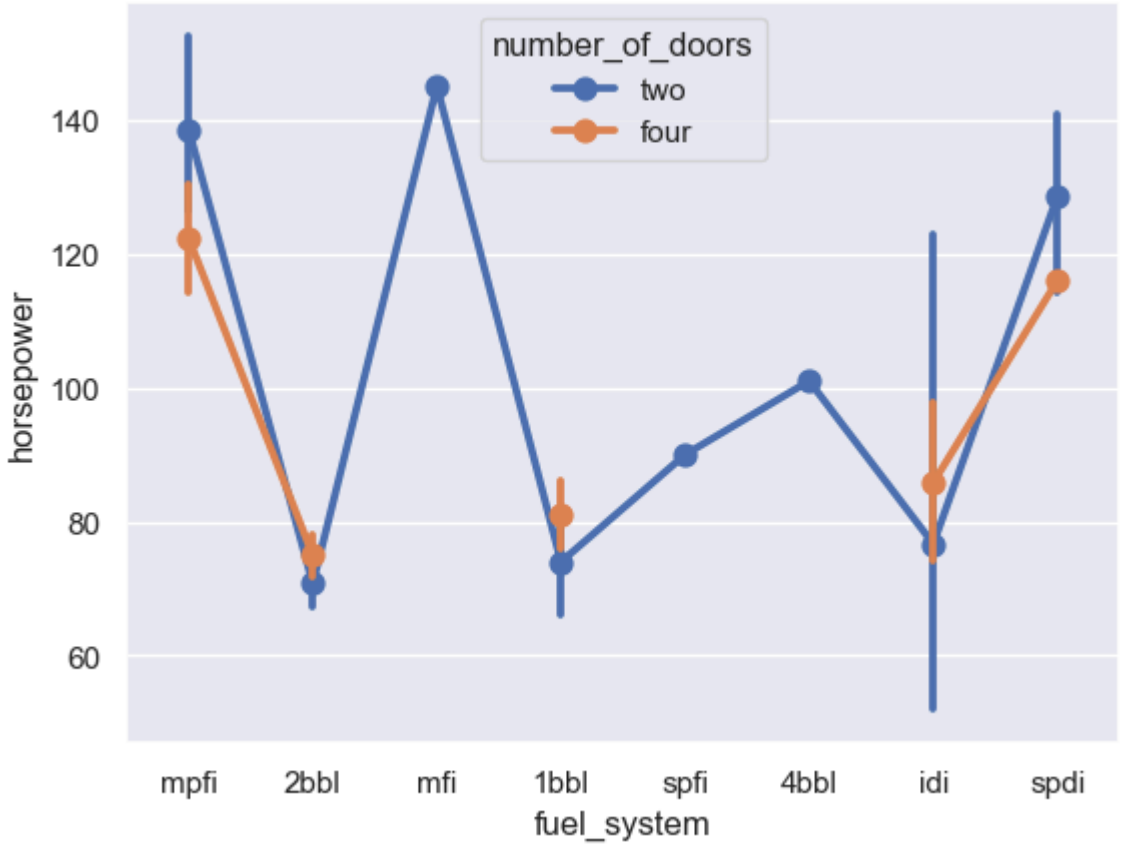
In [105…
```
sns.pointplot(x=auto['fuel_system'],y=auto['horsepower'])
```

Out[105…
```
<Axes: xlabel='fuel_system', ylabel='horsepower'>
```



In [106…
```
sns.pointplot(x=auto['fuel_system'],y=auto['horsepower'],hue=auto['number_of_doors'])
```

Out[106…
```
<Axes: xlabel='fuel_system', ylabel='horsepower'>
```

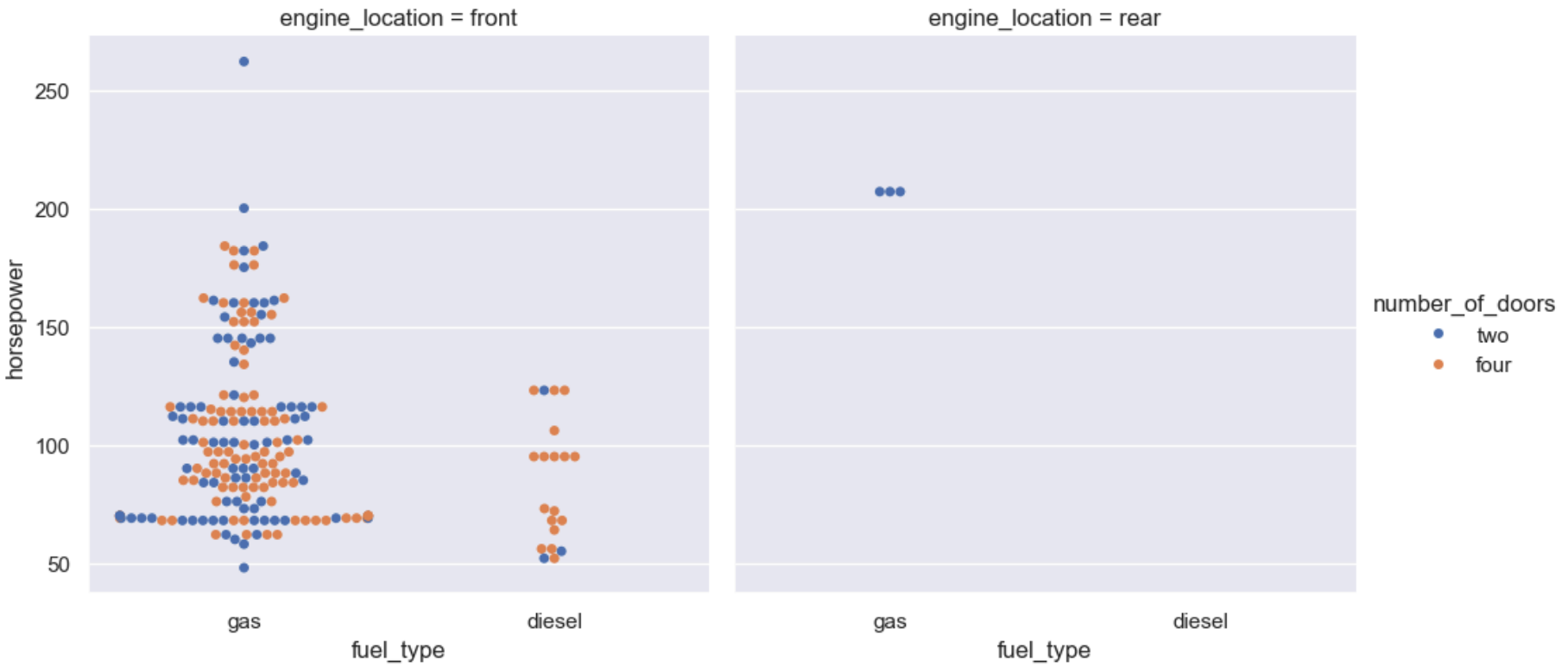


In [112…

```
sns.catplot(x="fuel_type",
                y="horsepower",
                hue="number_of_doors",
                col="engine_location",
                data=auto,
                kind="swarm")
```

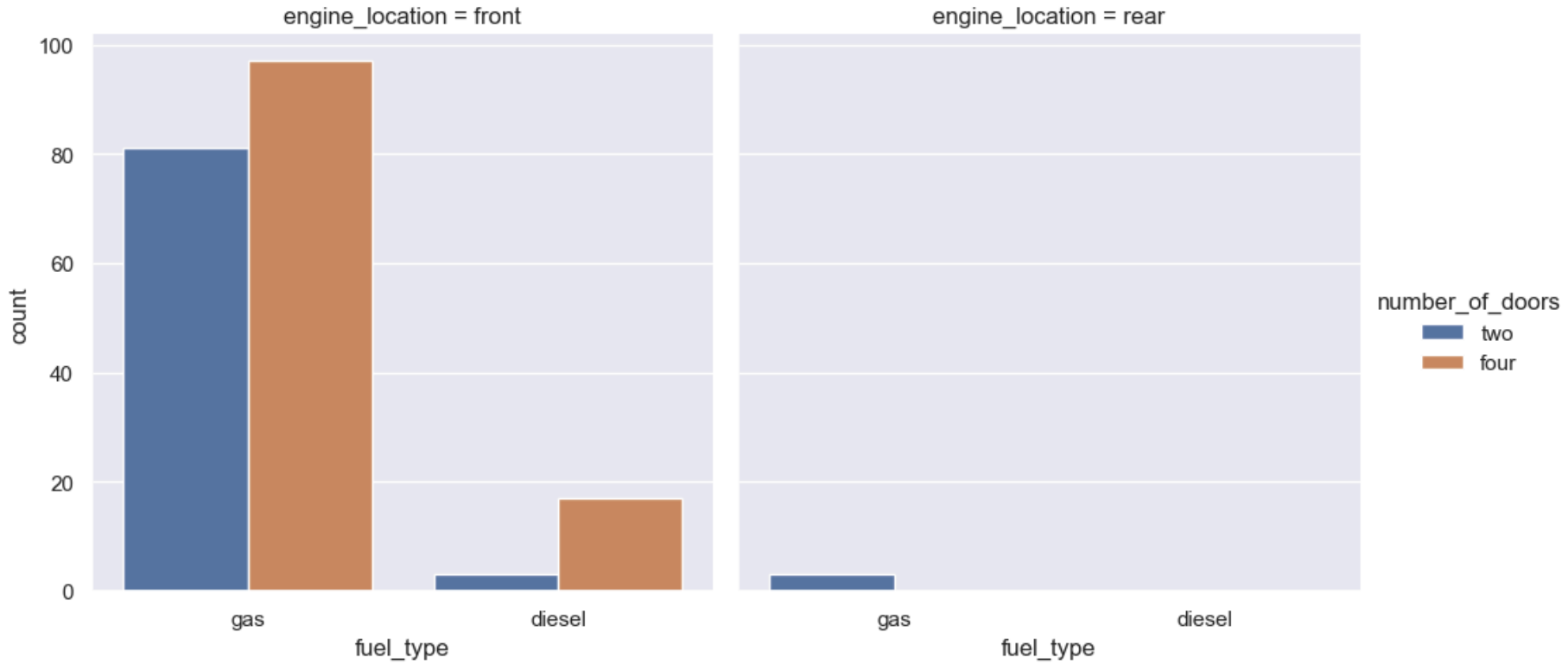
```
C:\Users\ritam\AppData\Roaming\Python\Python312\site-packages\seaborn\categorical.py:3399: UserWarning: 6.2% of the points cann
ot be placed; you may want to decrease the size of the markers or use stripplot.
  warnings.warn(msg, UserWarning)
C:\Users\ritam\AppData\Roaming\Python\Python312\site-packages\seaborn\categorical.py:3399: UserWarning: 5.1% of the points cann
ot be placed; you may want to decrease the size of the markers or use stripplot.
  warnings.warn(msg, UserWarning)
```

Out[112… <seaborn.axisgrid.FacetGrid at 0x2e12cabaf30>



In [113…
```
sns.catplot(x="fuel_type",
                hue="number_of_doors",
                col="engine_location",
                data=auto,
                kind="count")
```

Out[113… <seaborn.axisgrid.FacetGrid at 0x2e12cd08ad0>

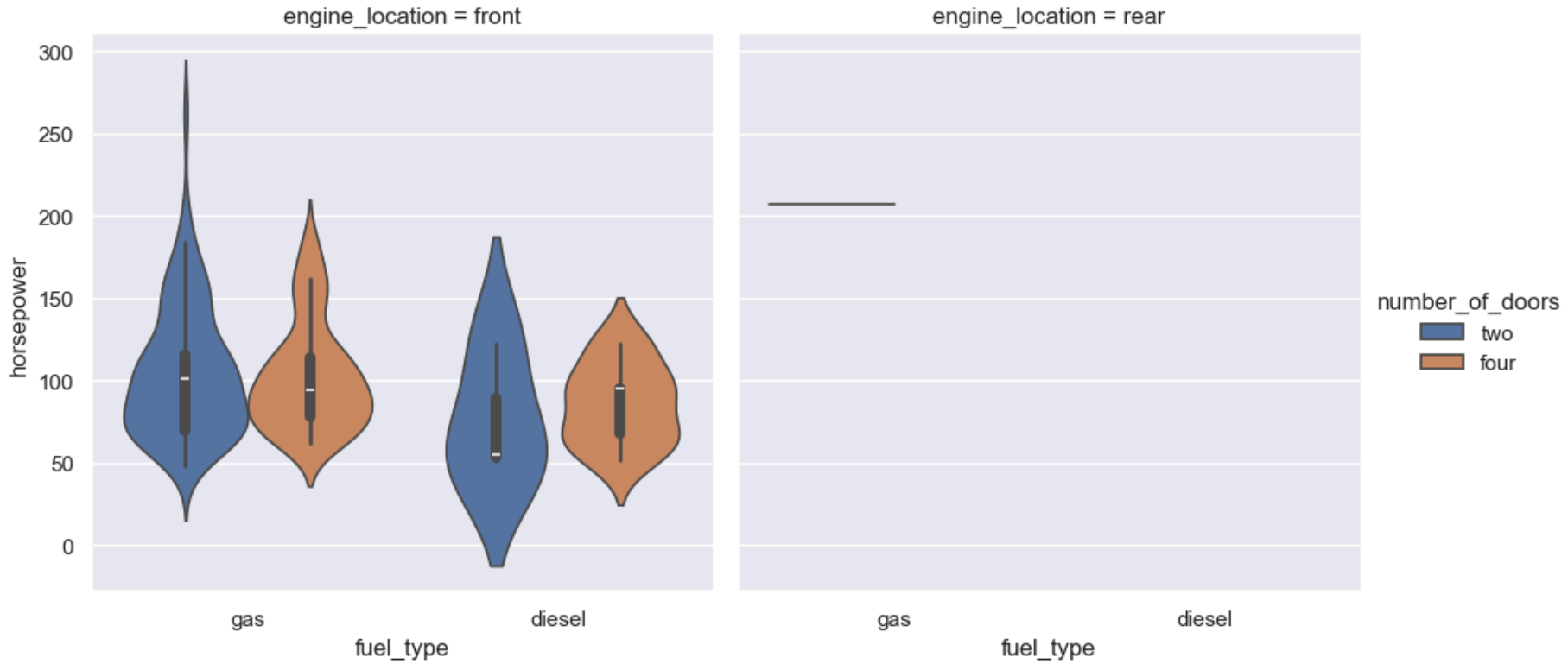


In [114…

```
sns.catplot(x="fuel_type",
                y="horsepower",
                hue="number_of_doors",
                col="engine_location",
                data=auto,
                kind="violin")
```

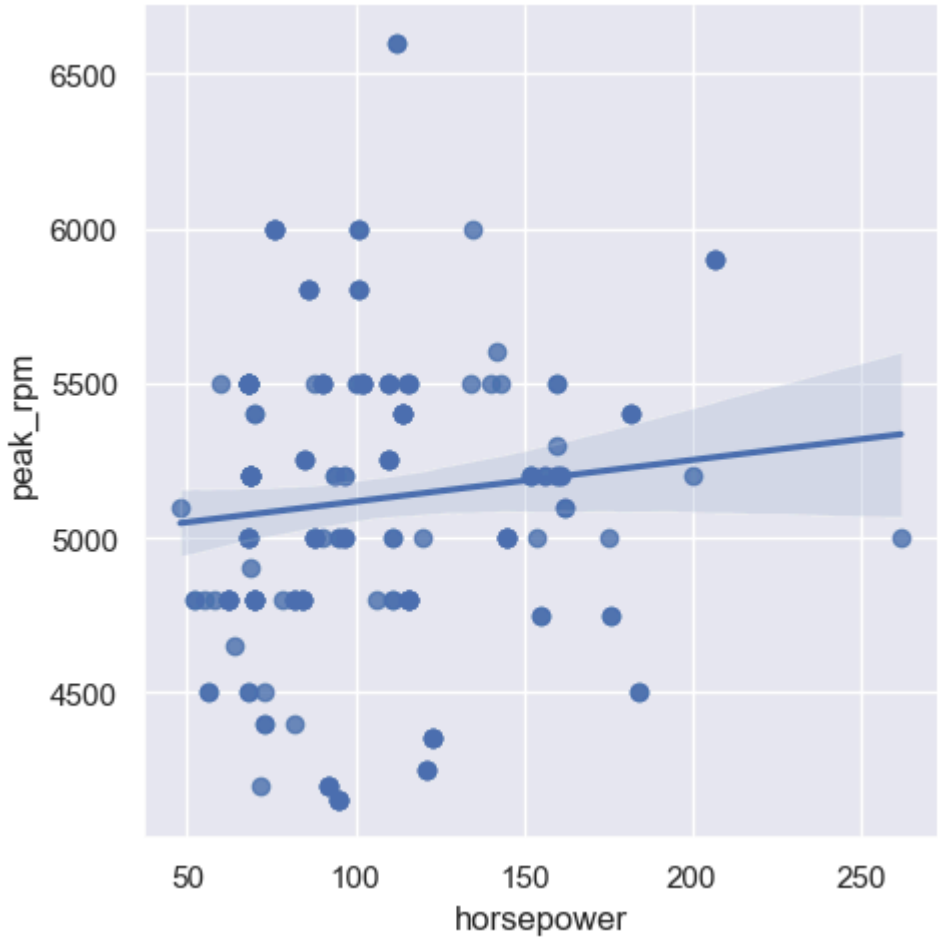
Out[114…

```
<seaborn.axisgrid.FacetGrid at 0x2e12e13f710>
```



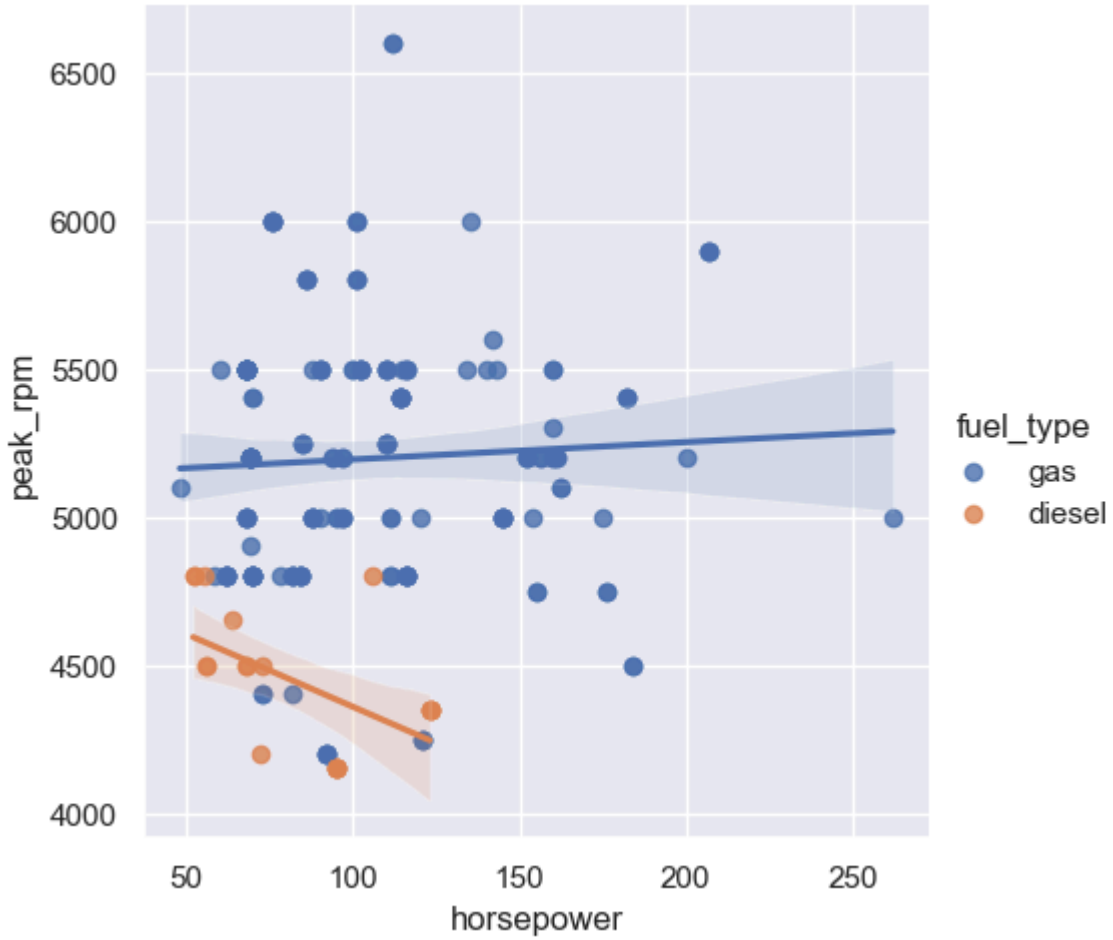
In [115…
```
sns.lmplot(x='horsepower',y='peak_rpm',data=auto)
```

Out[115…
```
<seaborn.axisgrid.FacetGrid at 0x2e12ea9ba40>
```



In [116…
```
sns.lmplot(x='horsepower',y='peak_rpm',data=auto,hue='fuel_type')
```

Out[116…
```
<seaborn.axisgrid.FacetGrid at 0x2e12cce4ce0>
```


6500
6000
5500
5000
4500
4000
peak_rpm
50
100
150
200
250
horsepower
fuel_type
gas
diesel

In [ ]: