

```
In [ ]: # ANANHA R MENON
# CH-20-04CSE20103
# CSE-B
```

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In [3]: import pandas as pd
import seaborn as sns # why sns? It's a reference to The West Wing
import matplotlib.pyplot as plt # seaborn is based on matplotlib
sns.set(color_codes=True) # adds a nice background to the graphs
matplotlib inline
# tells python to actually display the graphs
```

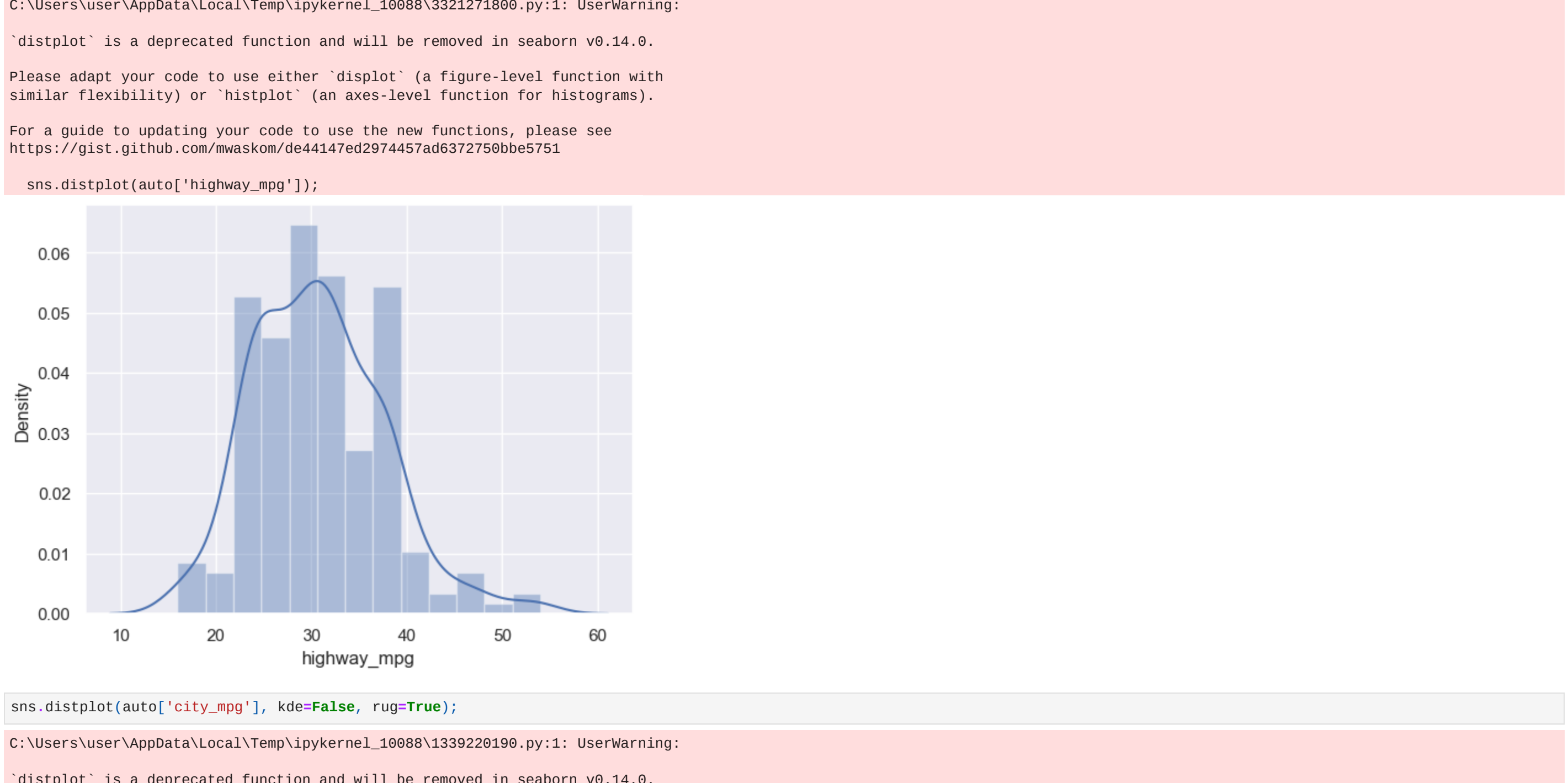
```
In [2]: auto = pd.read_csv('Automobile.csv')
```

```
In [3]: auto.head()
```

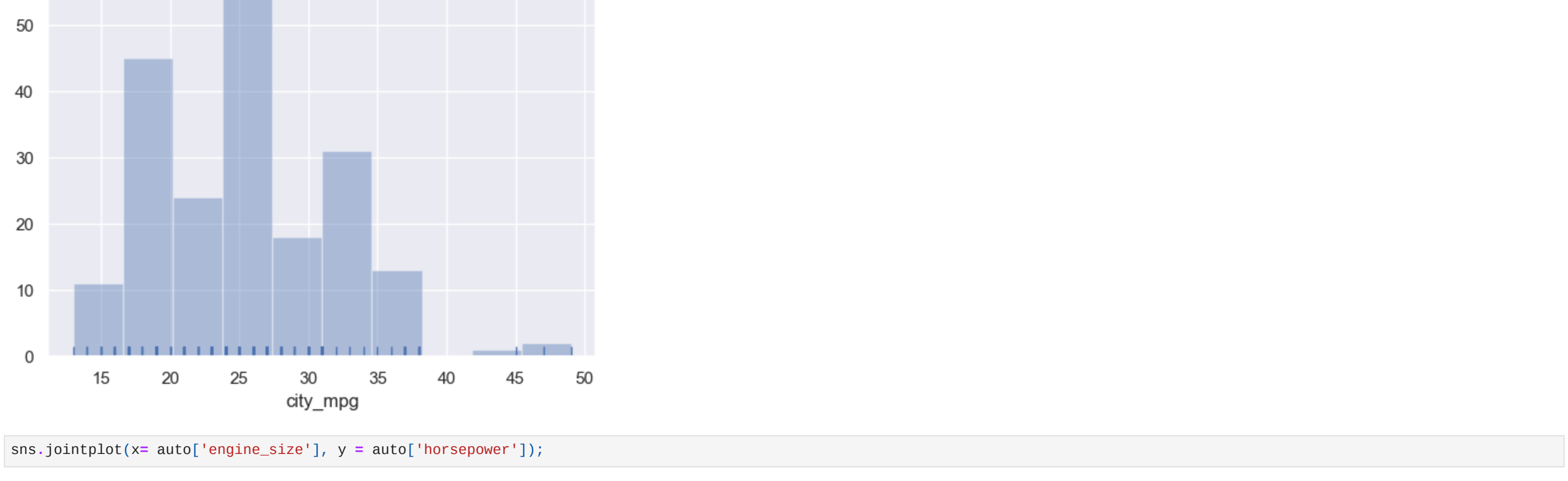
	symboling	normalized_losses	make	fuel_type	aspiration	number_of_doors	body_style	drive_wheels	engine_location	wheel_base	...	engine_size	fuel_system	bore	stroke	compression_ratio	horsepower	peak_rpm
0	3	168	alfa-romeo	gas	std	two	convertible	rwd	front	88.6	...	130	mpfi	3.47	2.68	9.0	111	5000
1	3	168	alfa-romeo	gas	std	two	convertible	rwd	front	88.6	...	130	mpfi	3.47	2.68	9.0	111	5000
2	1	168	alfa-romeo	gas	std	two	hatchback	rwd	front	94.5	...	152	mpfi	2.68	3.47	9.0	154	5000
3	2	164	audi	gas	std	four	sedan	fwd	front	99.8	...	109	mpfi	3.19	3.40	10.0	102	5500
4	2	164	audi	gas	std	four	sedan	4wd	front	99.4	...	136	mpfi	3.19	3.40	8.0	115	5500

5 rows × 26 columns

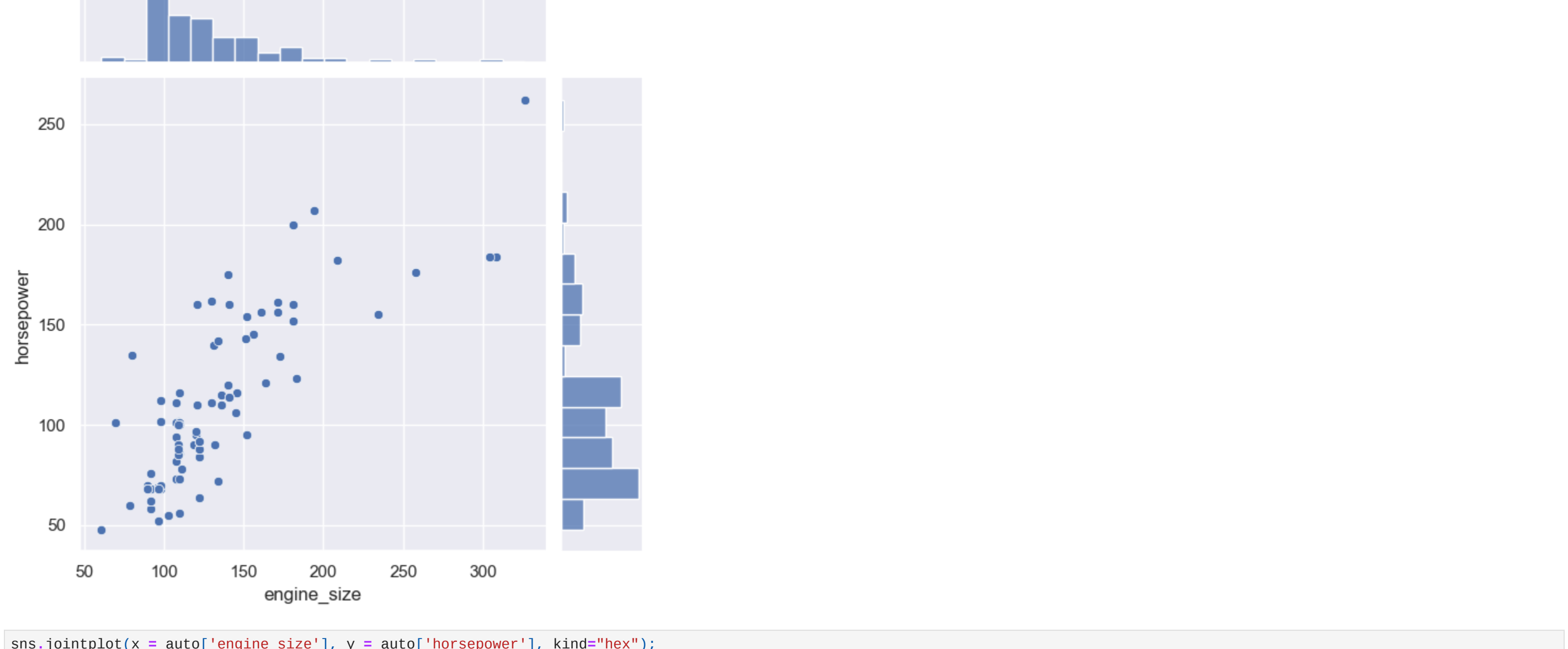
```
In [4]: sns.distplot(auto['highway_mpg']);
```



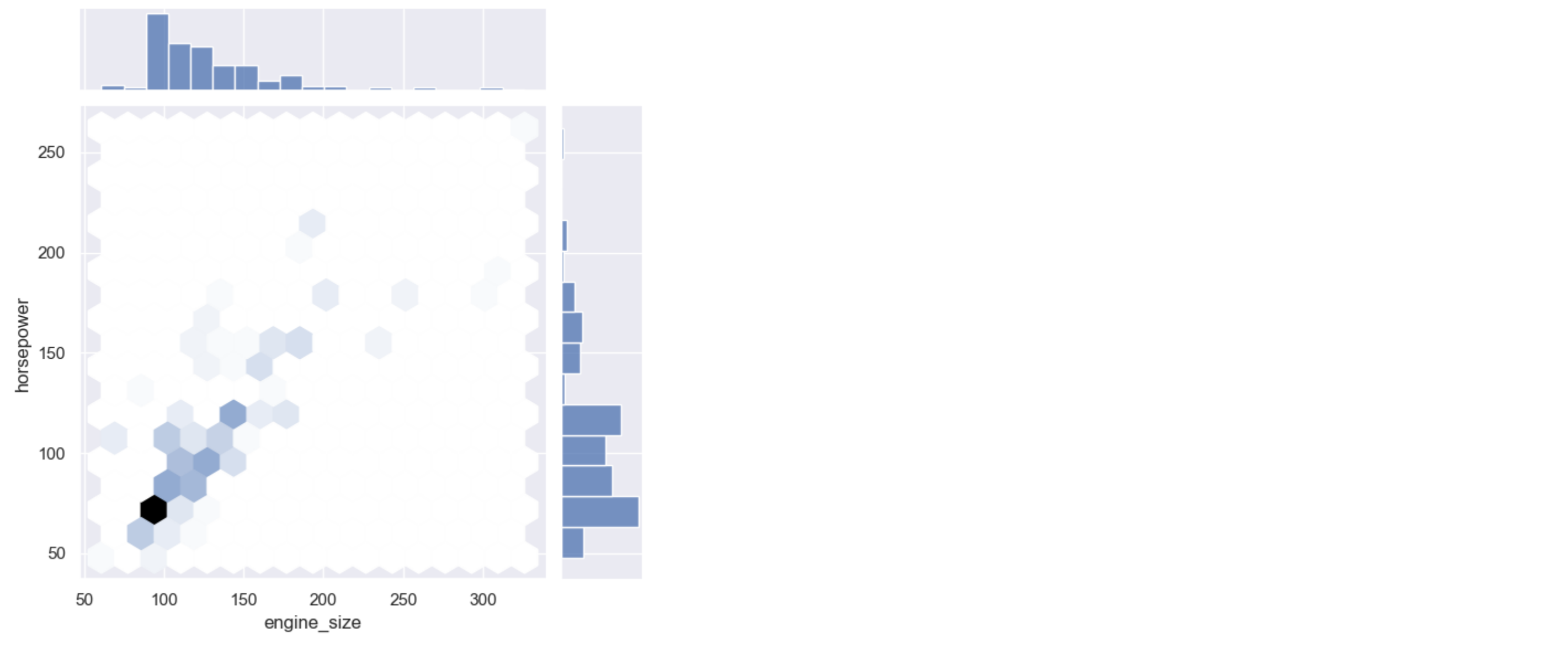
```
In [5]: sns.distplot(auto['city_mpg'], kde=False, rug=True);
```



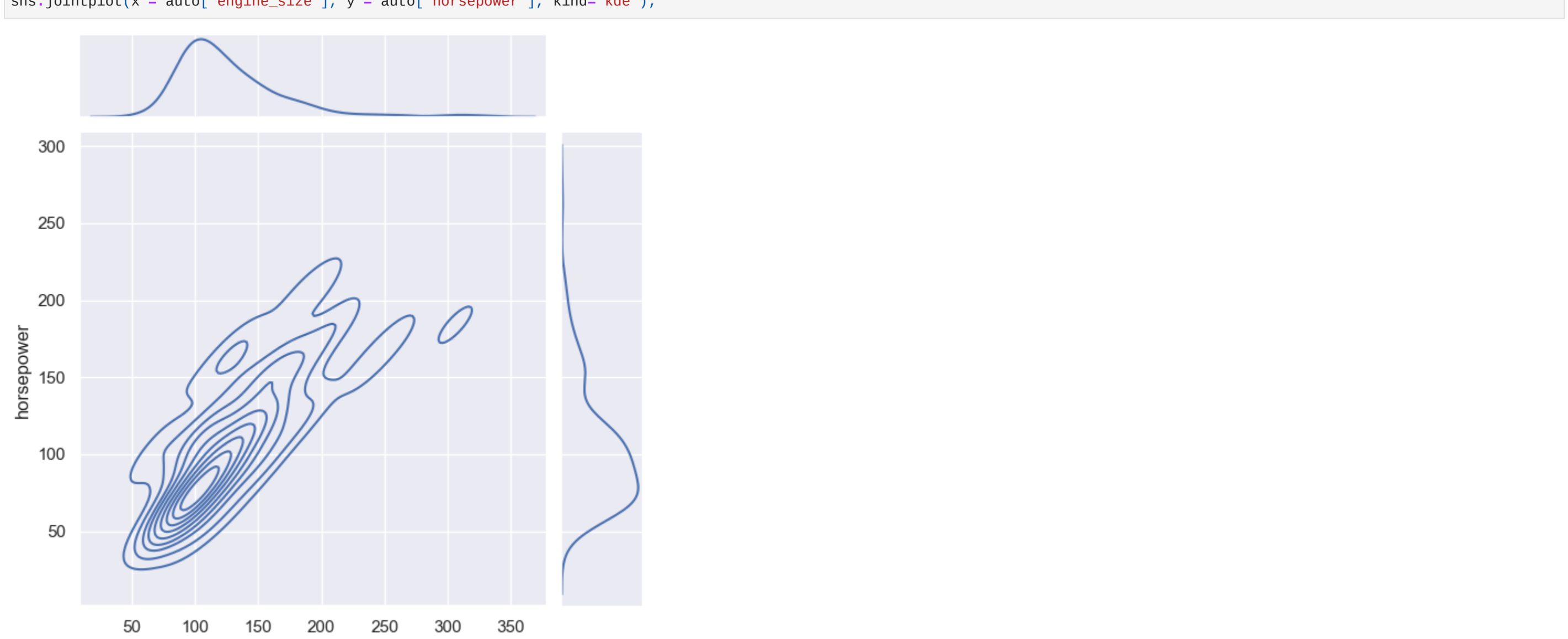
```
In [7]: sns.jointplot(x= auto['engine_size'], y = auto['horsepower']);
```



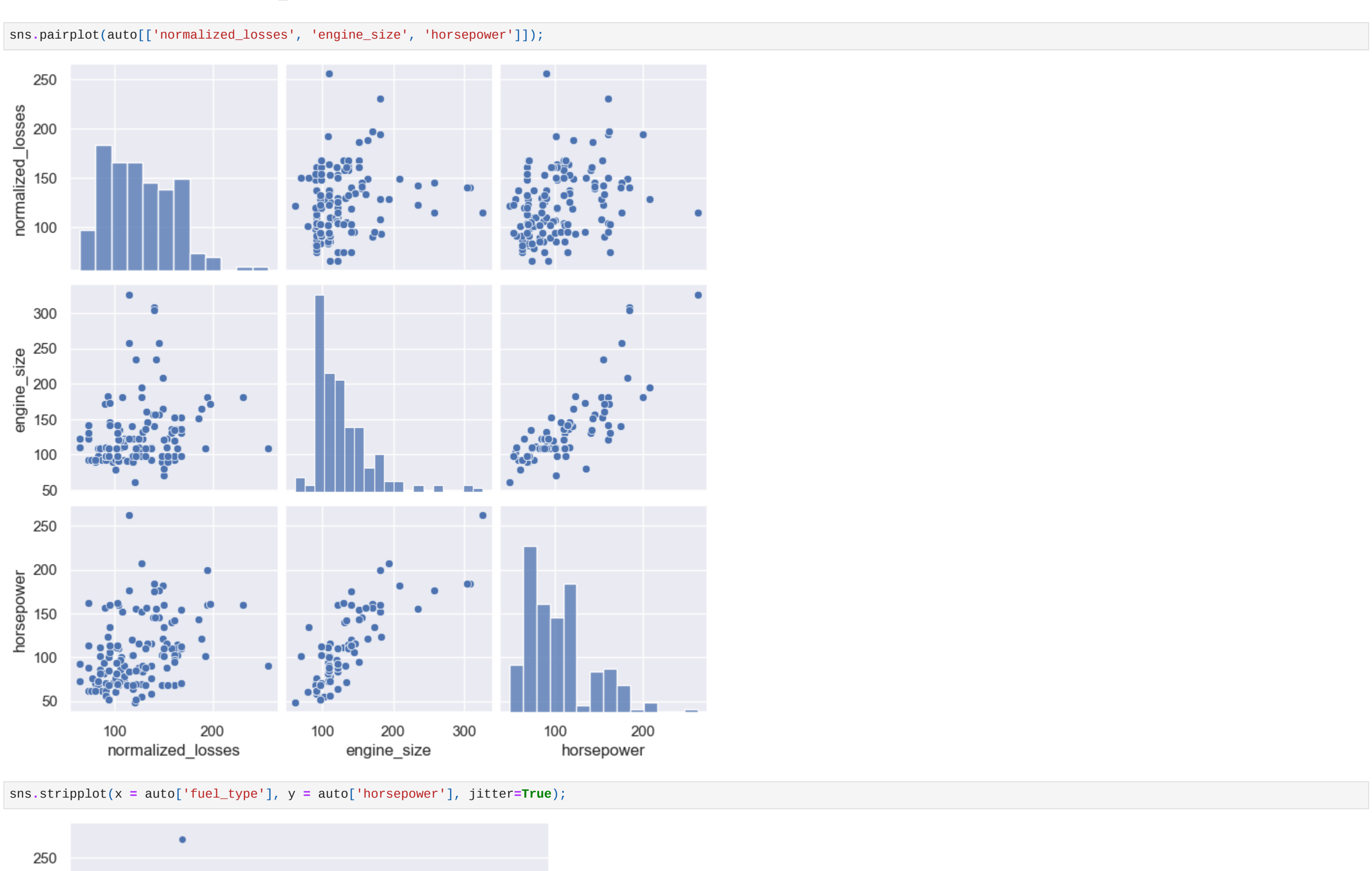
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In [9]: sns.jointplot(x = auto['engine_size'], y = auto['horsepower'], kind='hex');
```



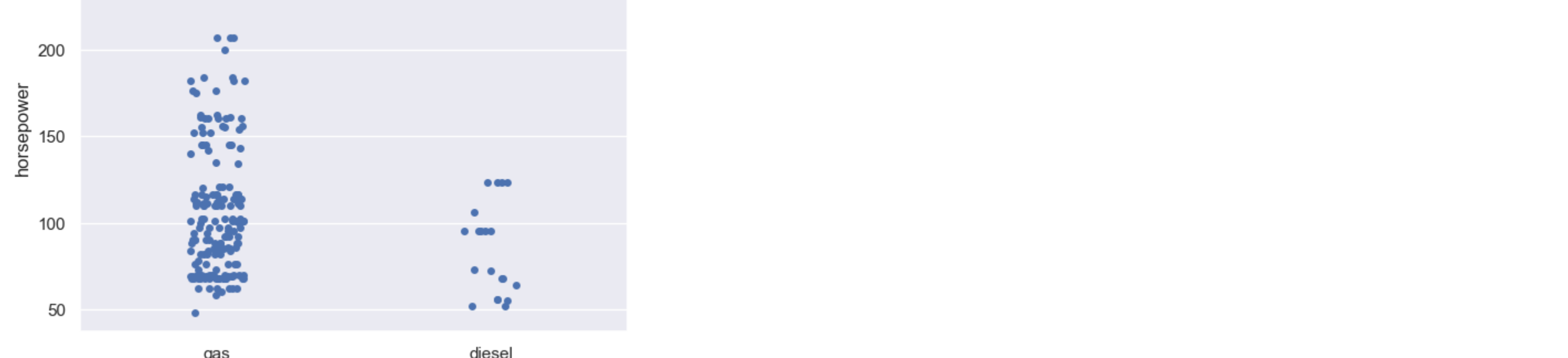
```
In [11]: sns.jointplot(x = auto['engine_size'], y = auto['horsepower'], kind='kde');
```



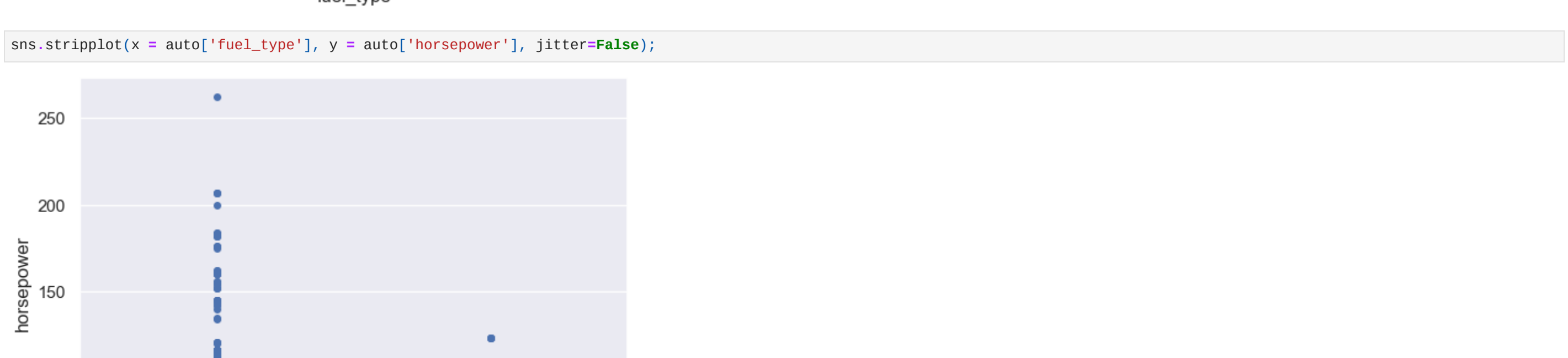
```
In [12]: sns.pairplot(auto[['normalized_losses', 'engine_size', 'horsepower']]);
```



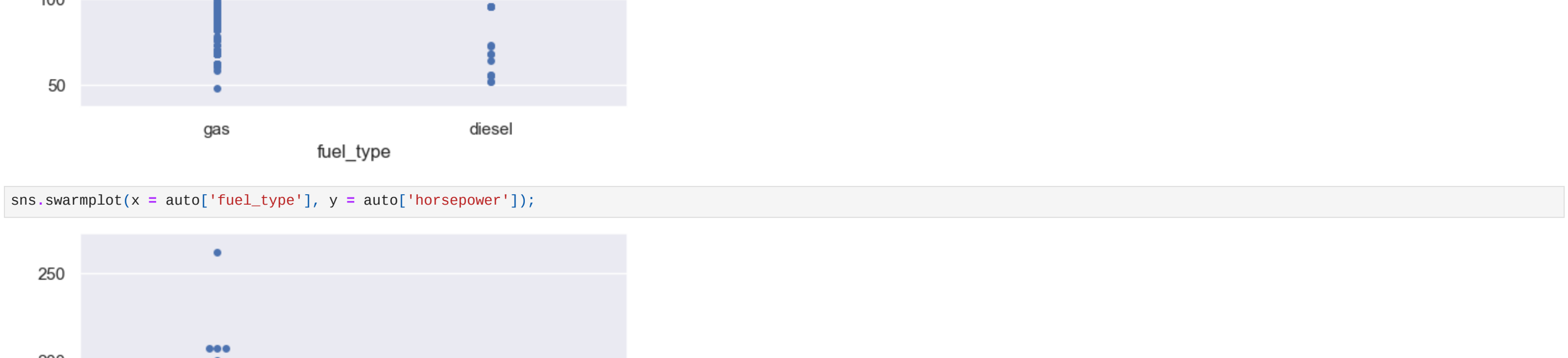
```
In [14]: sns.stripplot(x = auto['fuel_type'], y = auto['horsepower'], jitter=True);
```



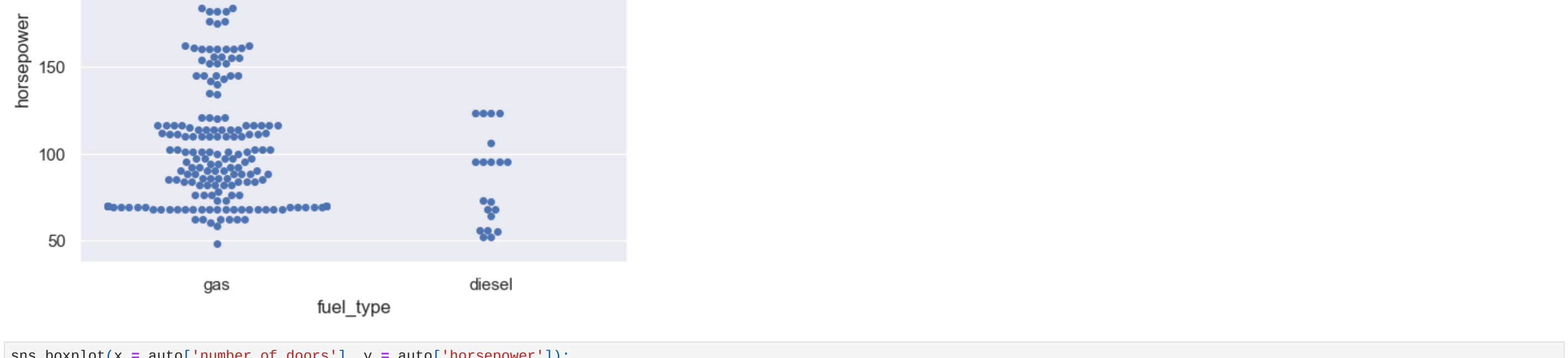
```
In [15]: sns.stripplot(x = auto['fuel_type'], y = auto['horsepower'], jitter=False);
```



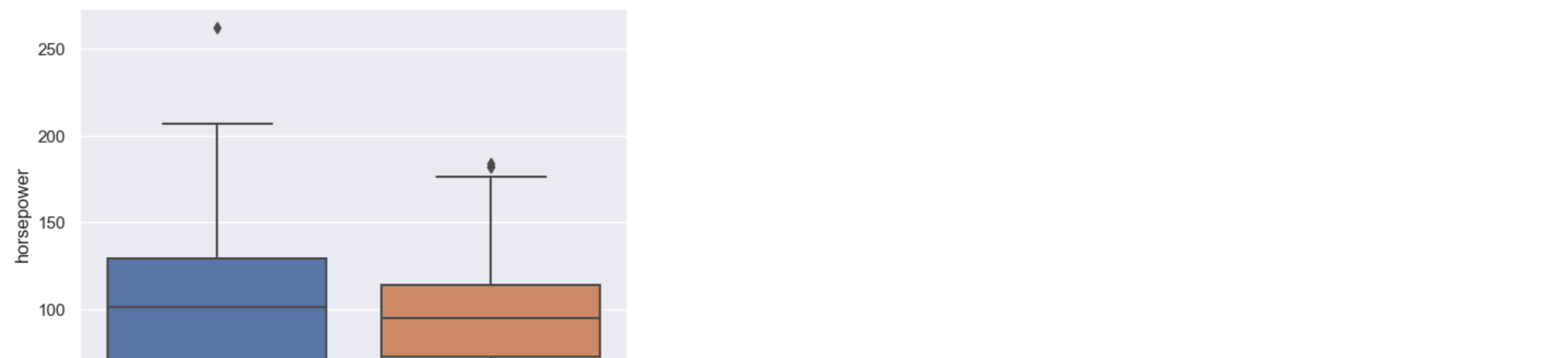
```
In [16]: sns.swarmplot(x = auto['fuel_type'], y = auto['horsepower']);
```



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In [18]: sns.boxplot(x = auto['number_of_doors'], y = auto['horsepower']);
```



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In [19]: sns.boxplot(x = auto['number_of_doors'], y = auto['horsepower'], hue=auto['fuel_type']);
```



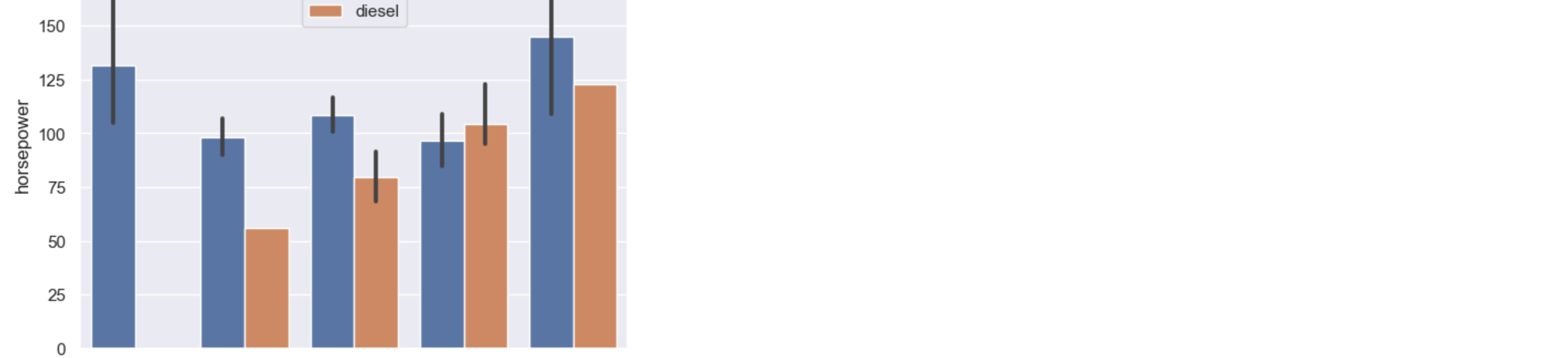
```
In [20]: sns.barplot(x = auto['body_style'], y = auto['horsepower'], hue=auto['fuel_type']);
```



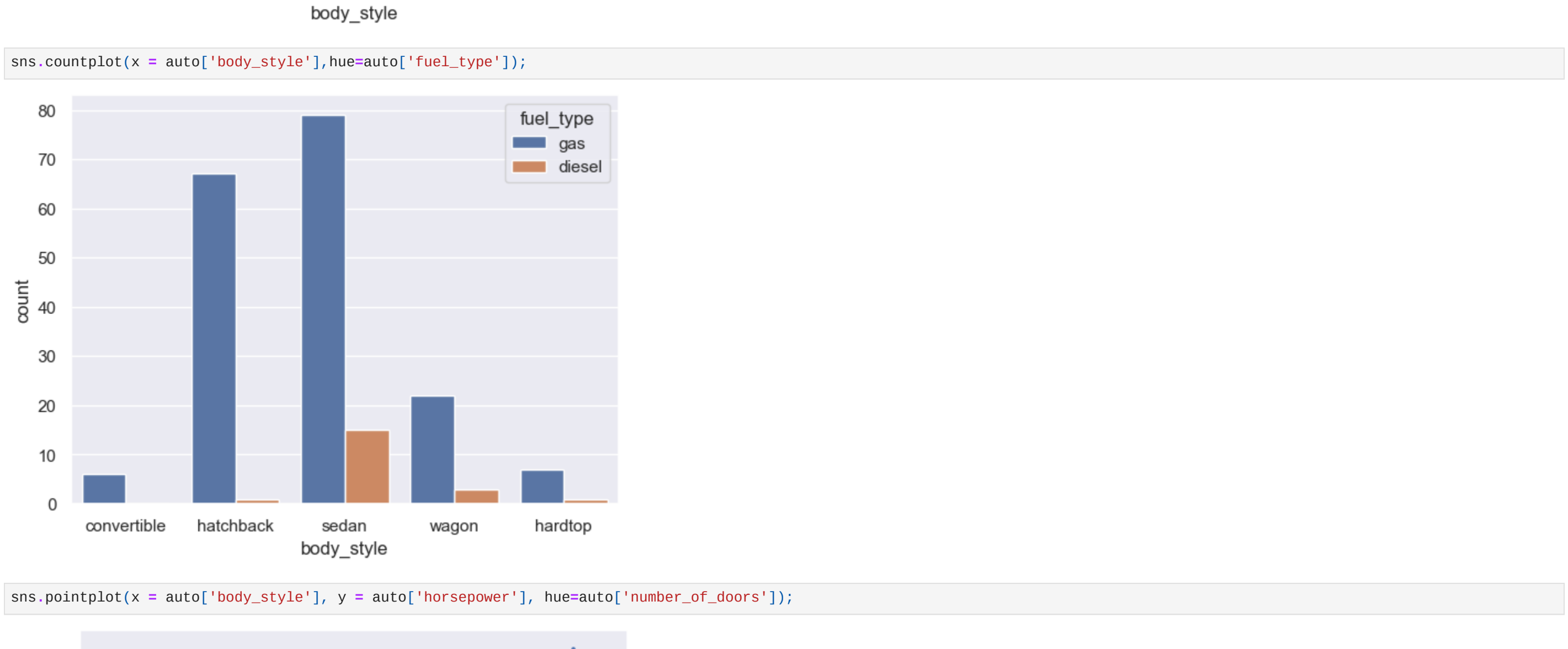
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In [22]: sns.countplot(x = auto['body_style'], hue=auto['fuel_type']);
```



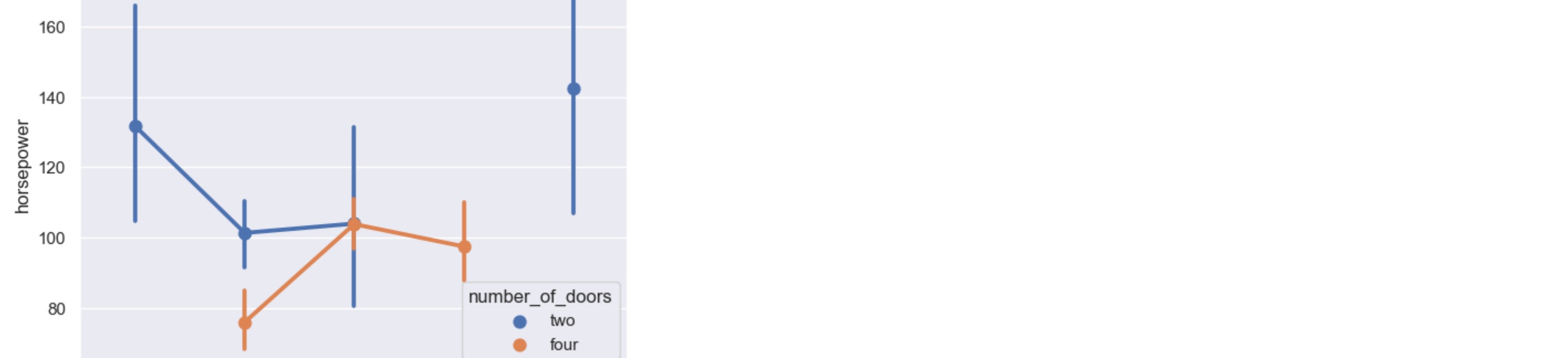
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In [23]: sns.pointplot(x = auto['body_style'], y = auto['horsepower'], hue=auto['number_of_doors']);
```



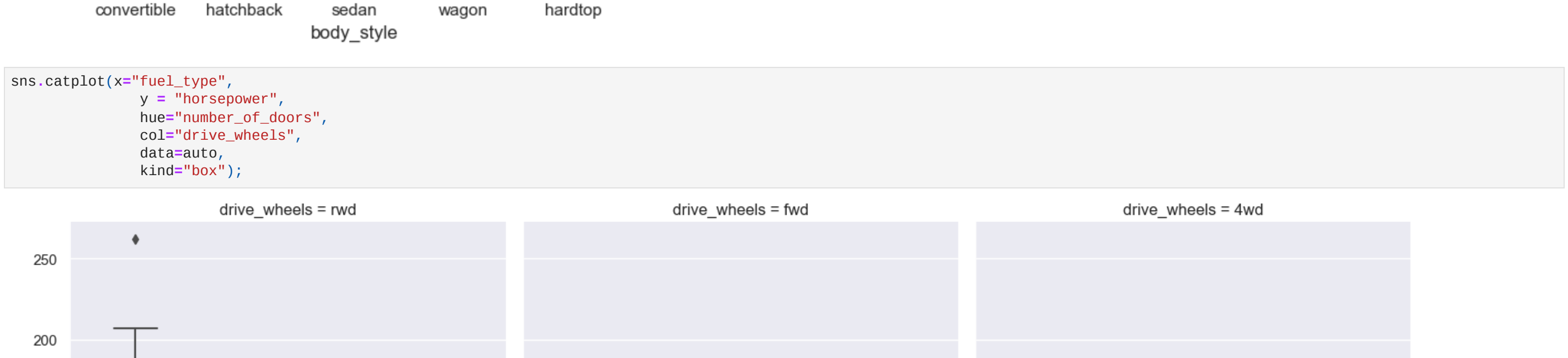
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In [24]: sns.catplot(x='fuel_type', y = 'horsepower', hue='number_of_doors', col='drive_wheels', data=auto, kind='box');
```



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In [25]: sns.lmplot(y='horsepower', x='engine_size', data=auto);
```



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In [26]: sns.lmplot(y='horsepower', x='engine_size', hue='fuel_type', data=auto);
```



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In [ ]:
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