In [58]:

```
import numpy as np
```

In [59]:

```
import pandas as pd
```

In [60]:

```
import matplotlib.pyplot as plt
```

In [61]:

```
m=pd.read_excel(r'C:\Users\user\Downloads\cars data.xlsx')
```

In [62]:

```
m
```

Out[62]:

	car_name	frequency	relative_frequency
0	Audi	124	0.37
1	BMW	98	0.24
2	Mercedes	113	0.34
3	Total	335	1.00

In [63]:

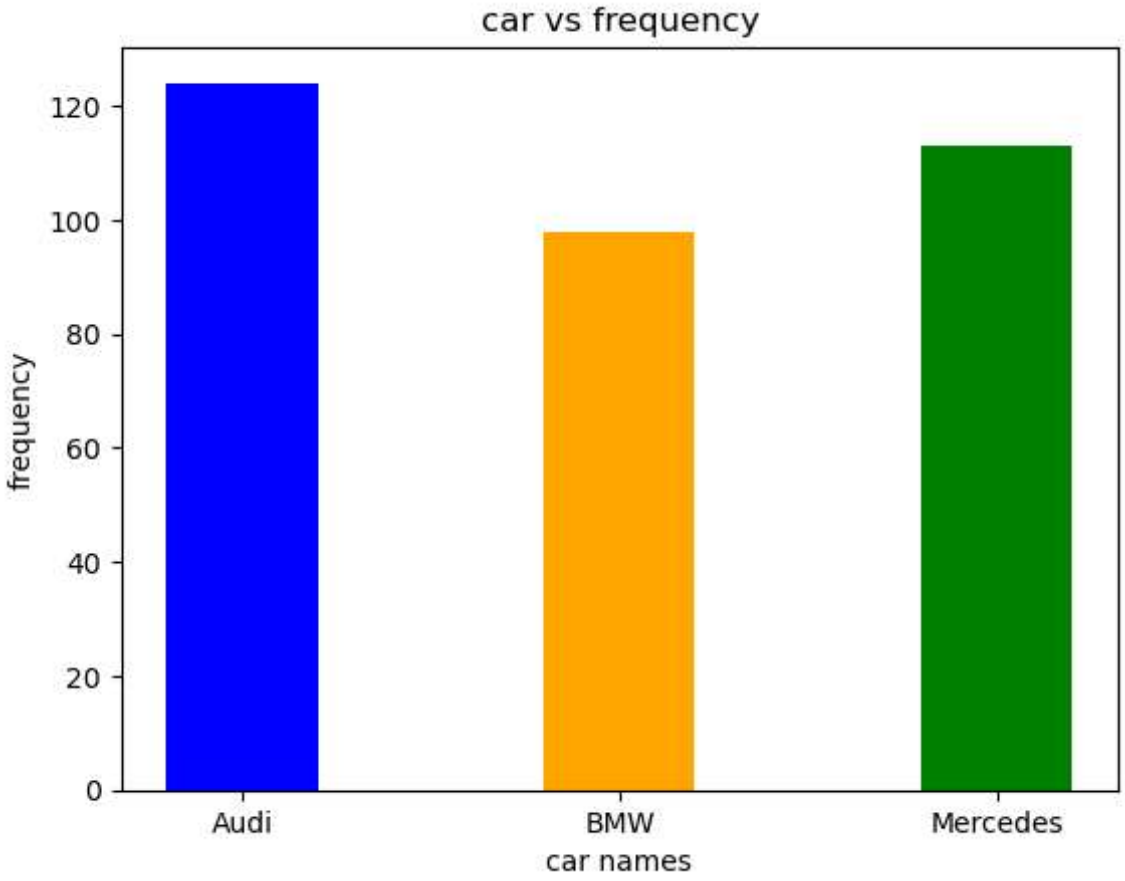
```
m.shape
```

Out[63]:

```
(4, 3)
```

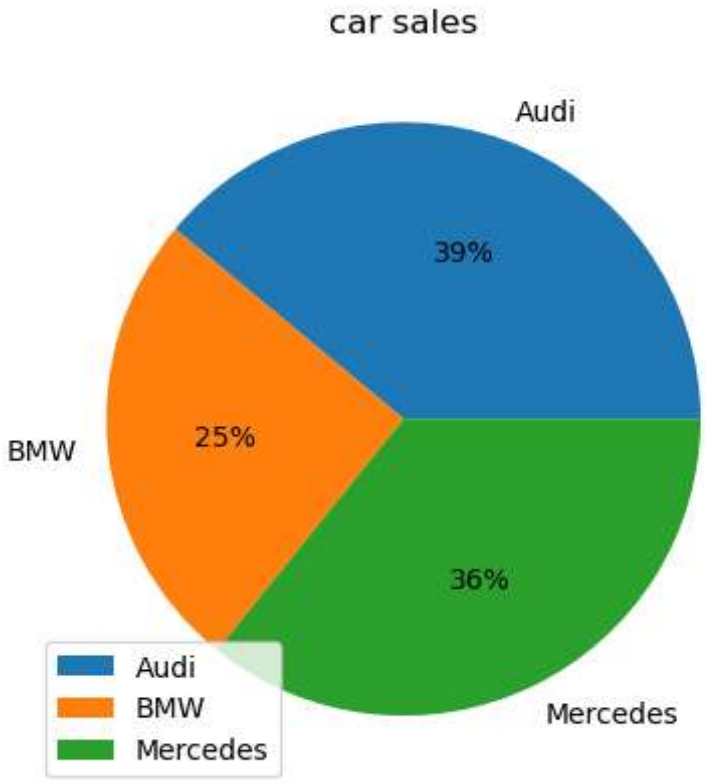
In [107]:

```
plt.bar(m.car_name[:3],m.frequency[:3],color=('blue','orange','green'),width=0.4)
plt.title('car vs frequency')
plt.xlabel('car names')
plt.ylabel('frequency')
plt.show()
```



In [112]:

```
plt.pie(m.relative_frequency[:3],labels=m.car_name[:3],autopct="%1.0f%%")
plt.title("car sales")
plt.legend(loc='lower left')
plt.show()
```

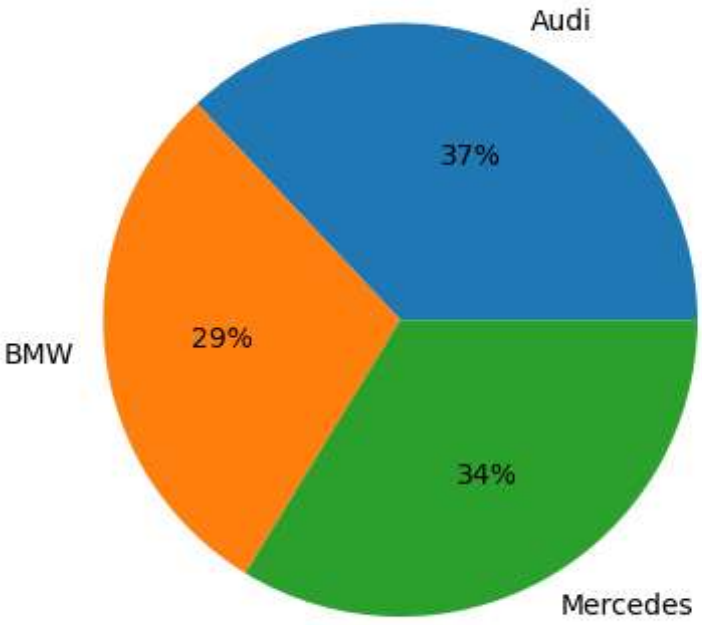


In [113]:

```
plt.pie(m.frequency[:3],labels=m.car_name[:3],autopct="%1.0f%%")
```

Out[113]:

```
([<matplotlib.patches.Wedge at 0x1ce69334370>,
  <matplotlib.patches.Wedge at 0x1ce69334280>,
  <matplotlib.patches.Wedge at 0x1ce69335060>],
 [Text(0.4363892652732461, 1.0097348212051898, 'Audi'),
  Text(-1.0941524656294324, -0.1132712759574722, 'BMW'),
  Text(0.5380457655904913, -0.9594304321471891, 'Mercedes')],
 [Text(0.23803050833086148, 0.5507644479301035, '37%'),
  Text(-0.5968104357978722, -0.061784332340439375, '29%'),
  Text(0.2934795085039043, -0.5233256902621032, '34%')])
```



In [ ]: