```python
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns

#Using same dataset from Aditi Dhali ma'ams class
data = pd.read_csv("https://raw.githubusercontent.com/Avik-Jain/100-Days-Of-ML-Code/master/datasets/50_Startups.csv")
data.head()
```

	R&D Spend	Administration	Marketing Spend	State	Profit
0	165349.20	136897.80	471784.10	New York	192261.83
1	162597.70	151377.59	443898.53	California	191792.06
2	153441.51	101145.55	407934.54	Florida	191050.39
3	144372.41	118671.85	383199.62	New York	182901.99
4	142107.34	91391.77	366168.42	Florida	166187.94

```python
print(data['Profit'].head())
plt.hist(data['Profit'])
```

```
0    192261.83
1    191792.06
2    191050.39
3    182901.99
4    166187.94
Name: Profit, dtype: float64
```
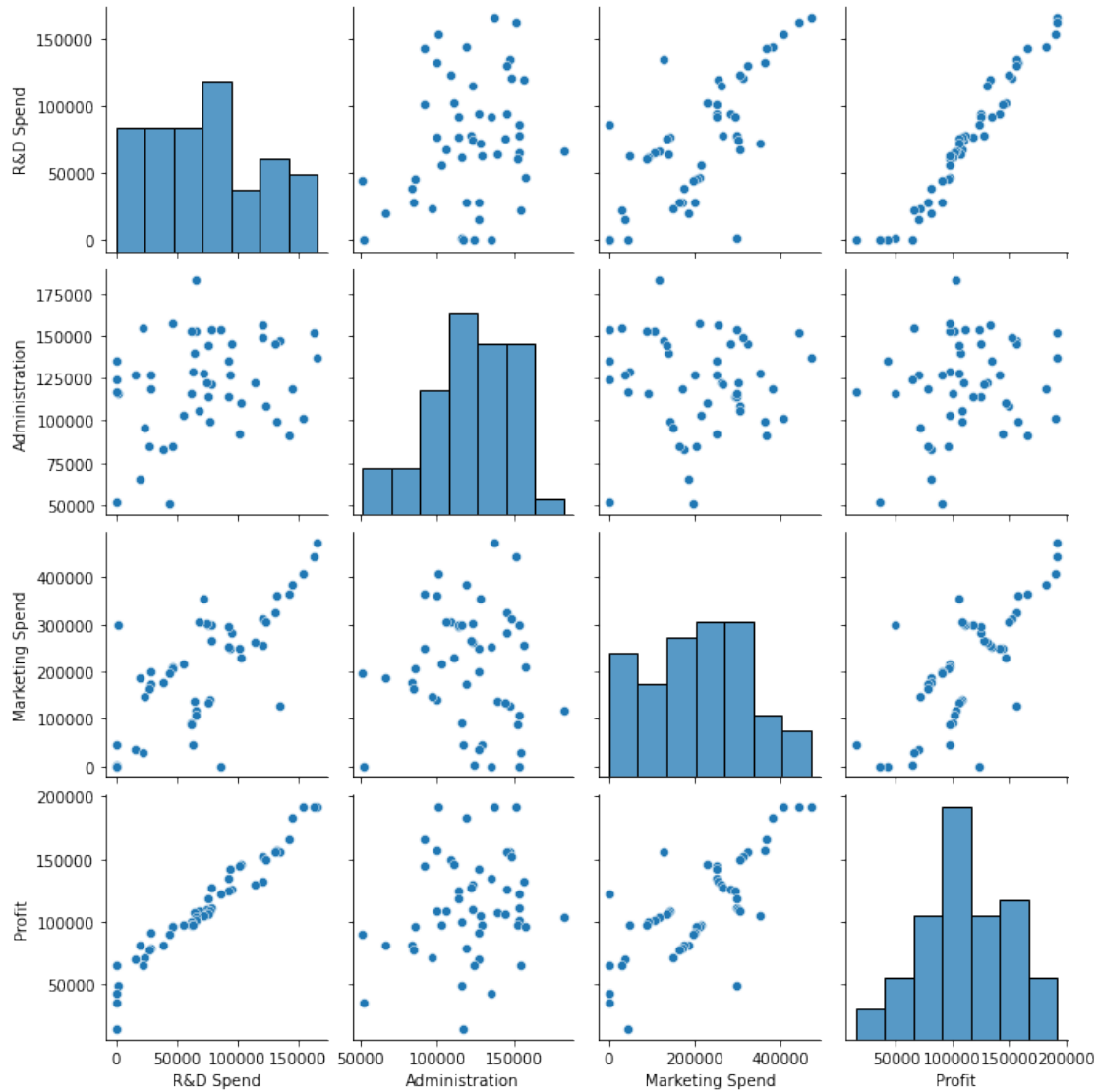
```
(array([ 1.,  3.,  2.,  6., 10.,  8.,  7.,  7.,  2.,  4.]),
 array([ 14681.4  ,  32439.443,  50197.486,  67955.529,  85713.572,
        103471.615, 121229.658, 138987.701, 156745.744, 174503.787,
        192261.83 ]),
 <a list of 10 Patch objects>)
```
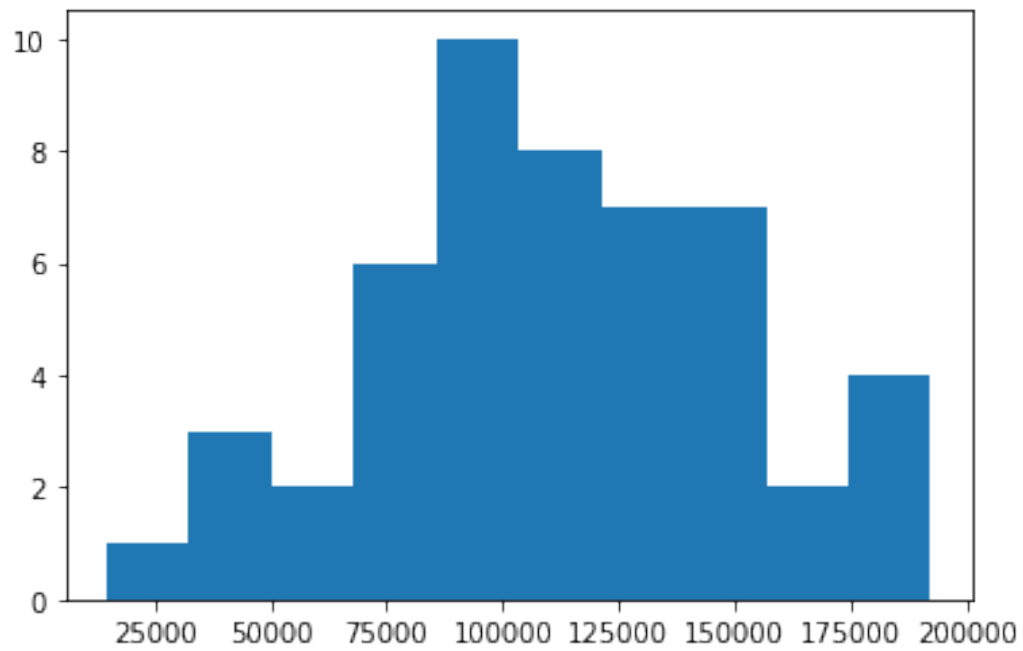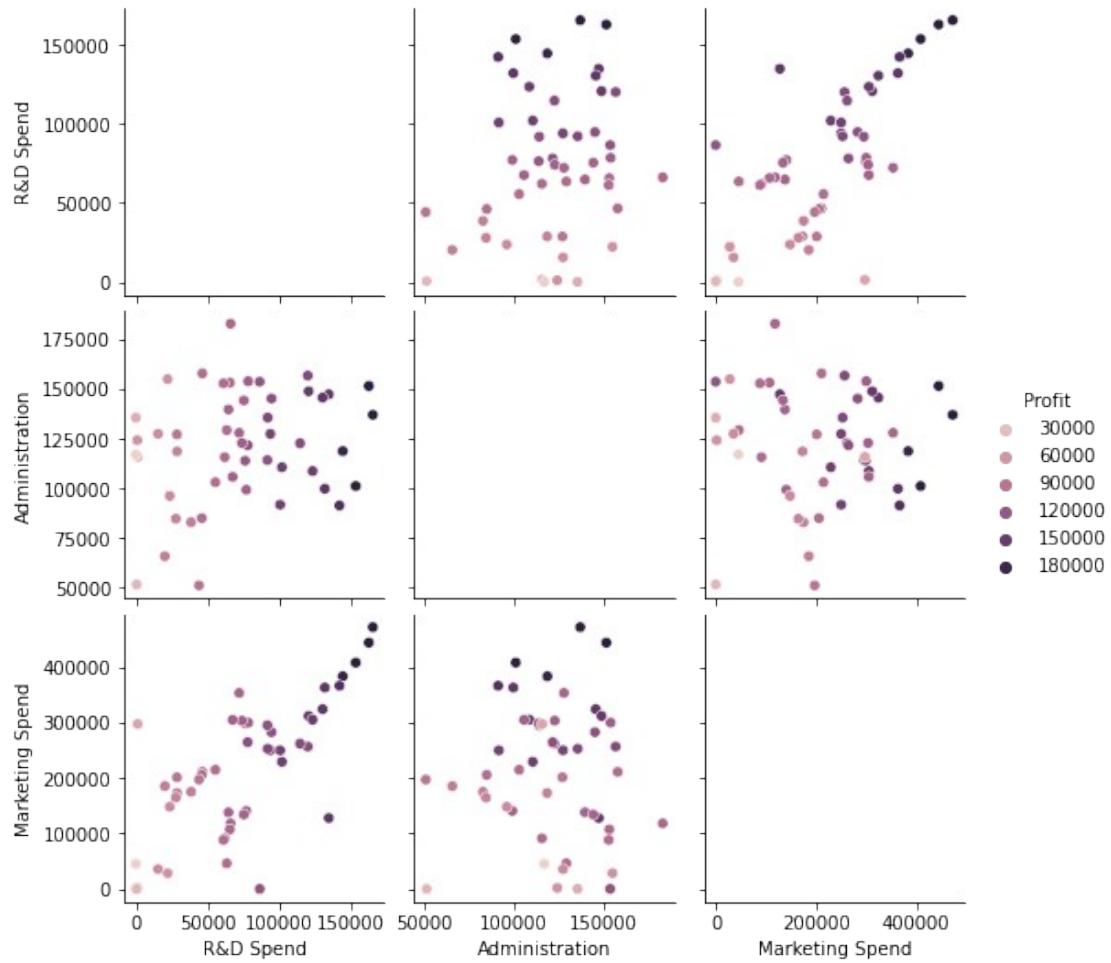
```
sns.pairplot(data)
```

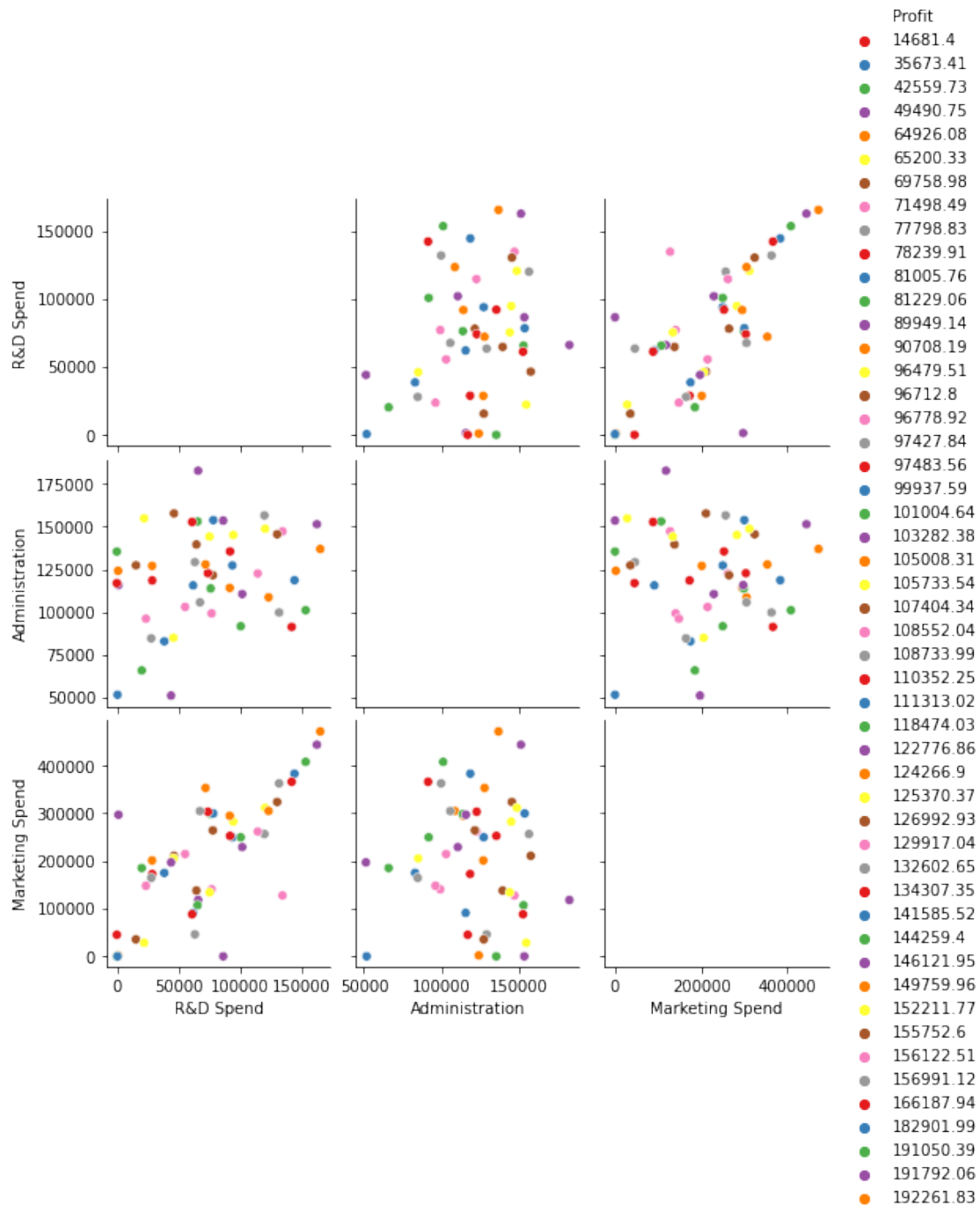<seaborn.axisgrid.PairGrid at 0x7fbf34b735e0>

```
data.head()
sns.pairplot(data, hue="Profit")
```

```
<seaborn.axisgrid.PairGrid at 0x7fbf318e8e20>
```
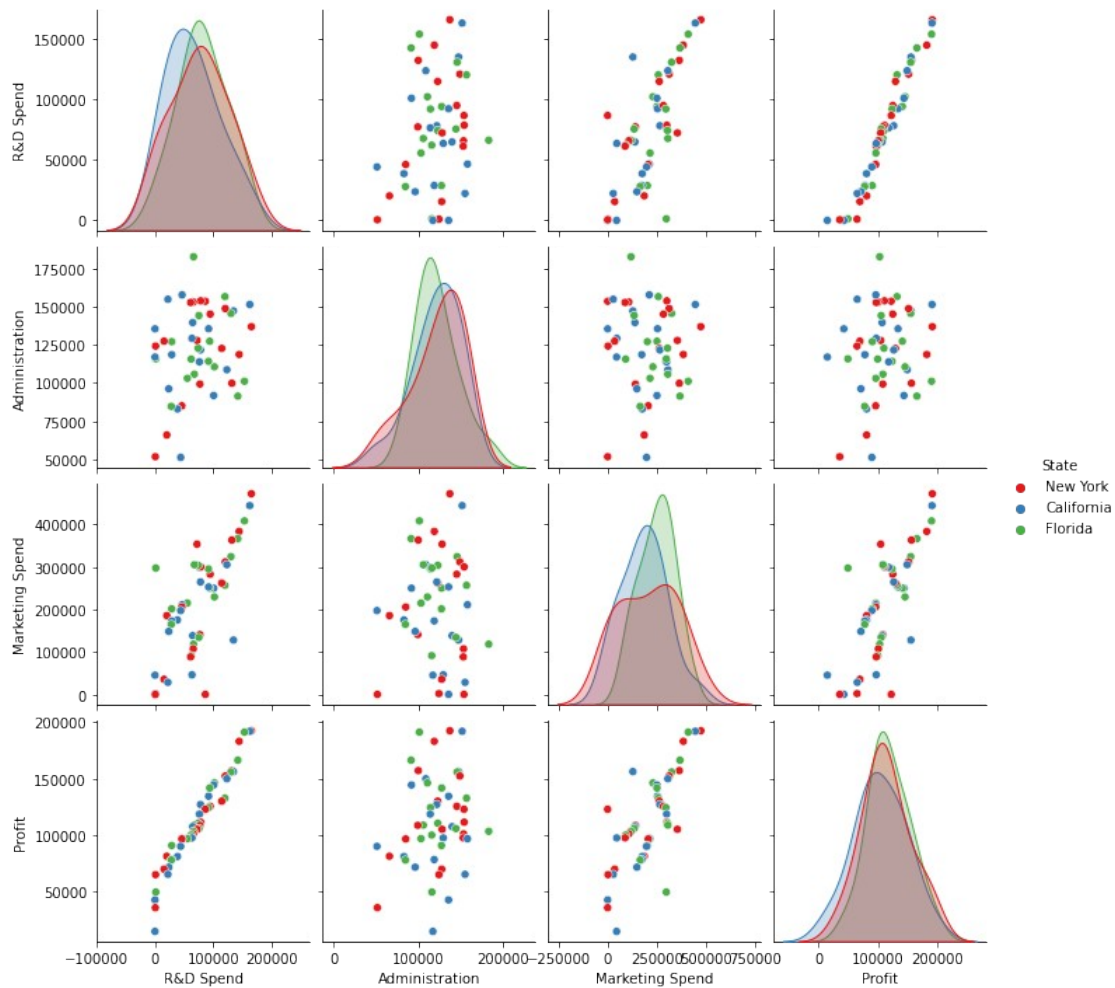
```
sns.pairplot(data, hue="Profit", palette="Set1")
```

```
<seaborn.axisgrid.PairGrid at 0x7fbf318791f0>
```

Profit
14681.4
35673.41
42559.73
49490.75
64926.08
65200.33
69758.98
71498.49
77798.83
78239.91
81005.76
81229.06
89949.14
90708.19
96479.51
96712.8
96778.92
97427.84
97483.56
99937.59
101004.64
103282.38
105008.31
105733.54
107404.34
108552.04
108733.99
110352.25
111313.02
118474.03
122776.86
124266.9
125370.37
126992.93
129917.04
132602.65
134307.35
141585.52
144259.4
146121.95
149759.96
152211.77
155752.6
156122.51
156991.12
166187.94
182901.99
191050.39
191792.06
192261.83

```
data.head()

sns.pairplot(data, hue="State", palette="Set1", diag_kind="kde")
<seaborn.axisgrid.PairGrid at 0x7fbf318df700>
```

```
data.head()

sns.pairplot(data, hue="State", palette="Set1", diag_kind="kde",
markers=["o", "s", "D"], kind="reg")

<seaborn.axisgrid.PairGrid at 0x7fbf2cc79220>
```