

```
In [1]: import pandas as pd
import seaborn as sns
sns.set(color_codes=True)
```

```
In [2]: from matplotlib import pyplot as plt
```

```
In [3]: eye = pd.read_csv('test2.csv')
```

```
In [4]: eye.head()
```

```
Out[4]:
```

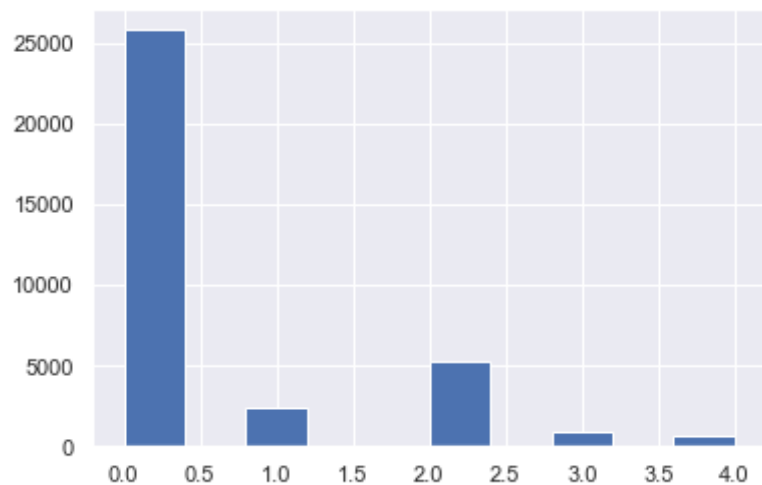
	Unnamed: 0	Unnamed: 0.1	image	level
0	0	0	10_left	0
1	1	1	10_right	0
2	2	2	13_left	0
3	3	3	13_right	0
4	4	4	15_left	1

```
In [5]: eye.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 35108 entries, 0 to 35107
Data columns (total 4 columns):
#   Column          Non-Null Count  Dtype  
---  -
0   Unnamed: 0      35108 non-null  int64  
1   Unnamed: 0.1    35108 non-null  int64  
2   image           35108 non-null  object  
3   level           35108 non-null  int64  
dtypes: int64(3), object(1)
memory usage: 1.1+ MB
```

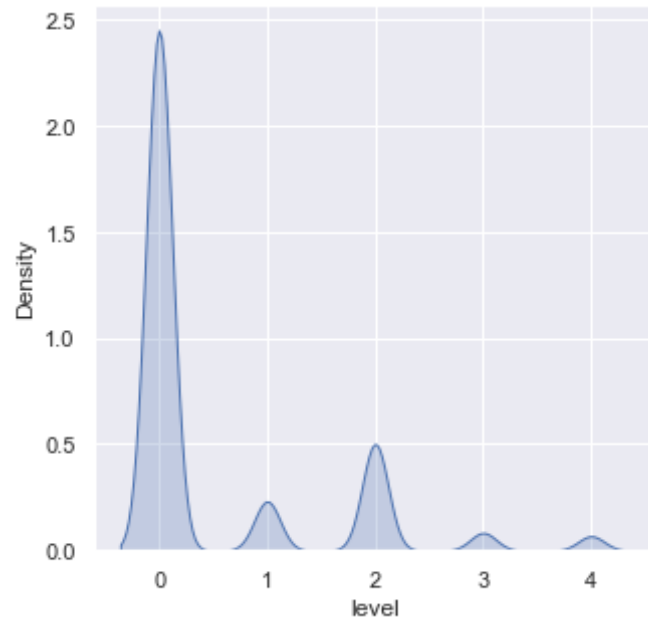
```
In [7]: plt.hist(eye['level'])
```

```
Out[7]: (array([25802.,    0., 2438.,    0.,    0., 5288.,    0., 872.,
              0., 708.]),
        array([0. , 0.4, 0.8, 1.2, 1.6, 2. , 2.4, 2.8, 3.2, 3.6, 4. ]),
        <BarContainer object of 10 artists>)
```



```
In [9]: sns.set(rc={'figure.figsize':(5,5)})
        sns.kdeplot(eye['level'],shade=True)
```

```
Out[9]: <AxesSubplot:xlabel='level', ylabel='Density'>
```

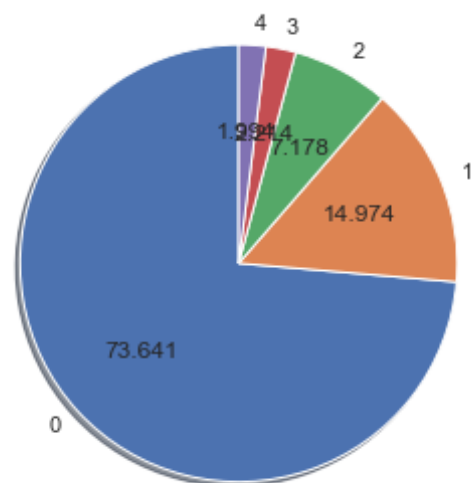


```
In [12]: eye1=eye.sample(frac=0.35)
```

```
In [13]: plt.figure(figsize=(5,5))
plt.pie(eye1['level'].value_counts(),startangle=90,autopct='%.3f',
        labels=['0','1','2','3','4'],shadow=True)
```

```
Out[13]: ([<matplotlib.patches.Wedge at 0x26646c93fd0>,
<matplotlib.patches.Wedge at 0x26646c9f940>,
<matplotlib.patches.Wedge at 0x26646caf250>,
<matplotlib.patches.Wedge at 0x26646cafb20>,
<matplotlib.patches.Wedge at 0x26646cbd430>],
[Text(-0.8103081082884328, -0.7439091138318051, '0'),
Text(1.0194662797571412, 0.4131446531641604, '1'),
Text(0.5175442007946938, 0.9706430859094304, '2'),
Text(0.21294431653244328, 1.079191696621379, '3'),
Text(0.06885643501648304, 1.097842789909749, '4')],
[Text(-0.44198624088459965, -0.4057686075446209, '73.641'),
Text(0.5560725162311679, 0.2253516289986329, '14.974'),
Text(0.28229683679710565, 0.5294416832233256, '7.178')],
```

```
Text(0.11615144538133268, 0.588650016338934, '2.214'),  
Text(0.0375580554635362, 0.5988233399507721, '1.994'))]
```



In []: