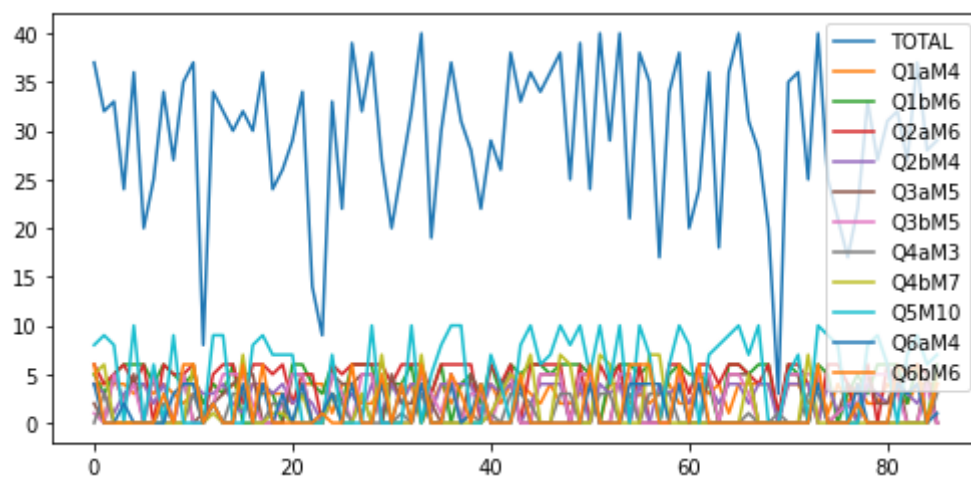


```
In [288]: # DV Case Study 4 on matplotlib  
# AIML OMEGA  
# 2111CS020505  
# N.Shashank Sagar
```

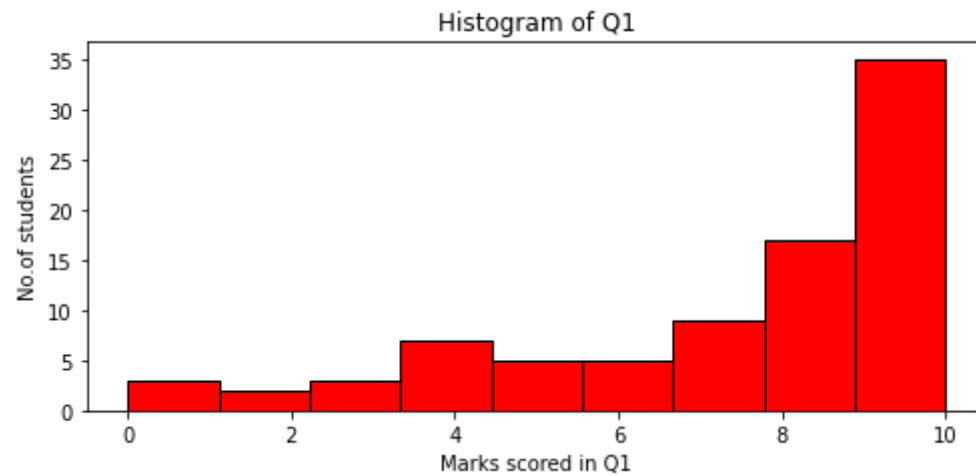
```
In [289]: import pandas as pd  
import matplotlib.pyplot as plt  
df = pd.read_csv(r"C:\Users\SHASHANK SAGAR\Desktop\DV_505\class_marks.csv")
```

```
In [76]: df.plot()  
plt.show()
```



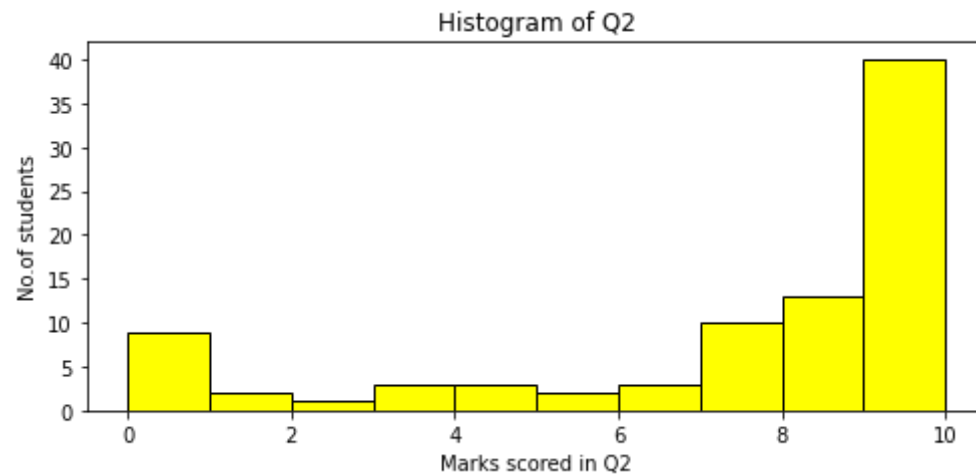
```
In [97]: df['Q1']=df['Q1aM4']+df["Q1bM6"]  
plt.hist(df['Q1'],color='red',edgecolor='black',bins=9)  
plt.xlabel("Marks scored in Q1")  
plt.ylabel("No.of students")  
plt.title("Histogram of Q1")
```

Out[97]: Text(0.5, 1.0, 'Histogram of Q1')



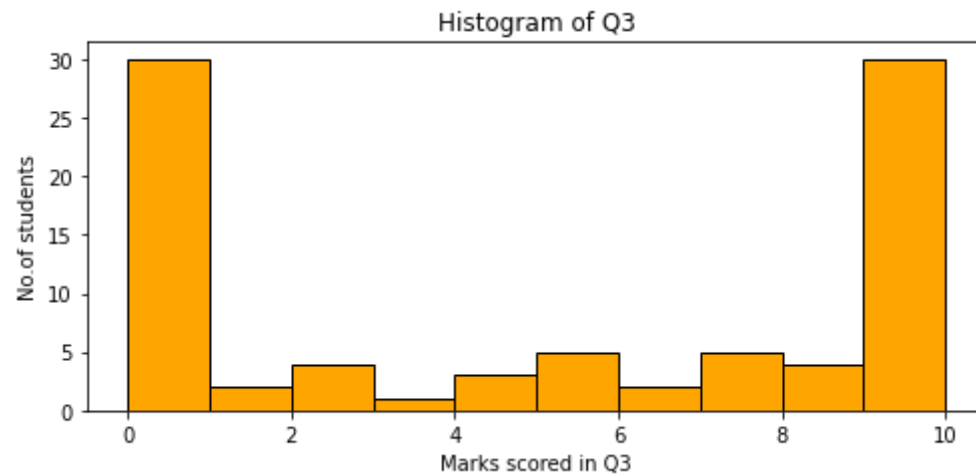
```
In [95]: df['Q2']=df['Q2aM6']+df["Q2bM4"]  
plt.hist(df["Q2"],color='yellow',bins=10,edgecolor='black')  
plt.xlabel("Marks scored in Q2")  
plt.ylabel("No.of students")  
plt.title("Histogram of Q2")
```

Out[95]: Text(0.5, 1.0, 'Histogram of Q2')



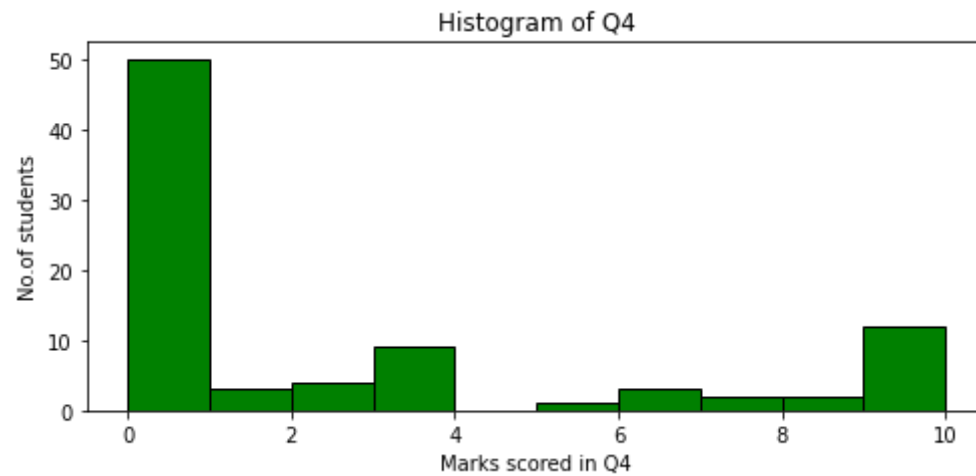
```
In [98]: df['Q3']=df['Q3aM5']+df["Q3bM5"]  
plt.hist(df["Q3"],color='orange',bins=10,edgecolor='black')  
plt.xlabel("Marks scored in Q3")  
plt.ylabel("No.of students")  
plt.title("Histogram of Q3")
```

Out[98]: Text(0.5, 1.0, 'Histogram of Q3')



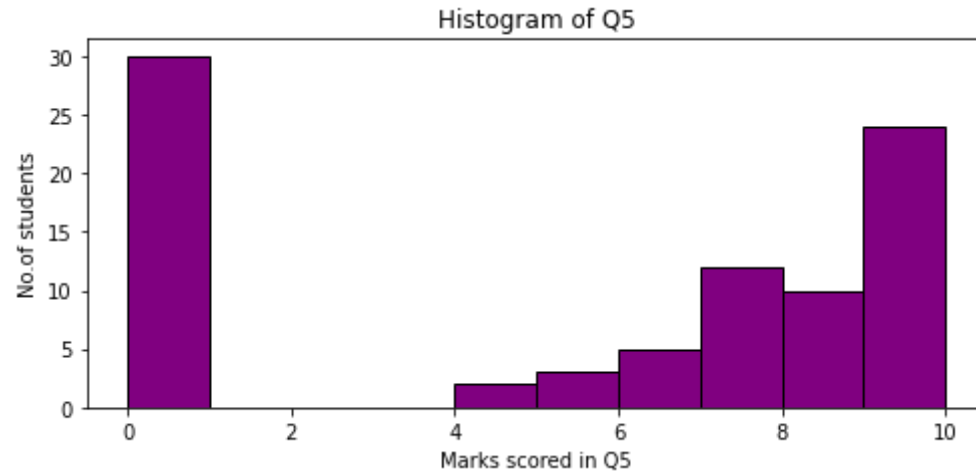
```
In [100]: df['Q4']=df['Q4aM3']+df["Q4bM7"]  
plt.hist(df["Q4"],color='green',bins=10,edgecolor='black')  
plt.xlabel("Marks scored in Q4")  
plt.ylabel("No.of students")  
plt.title("Histogram of Q4")
```

Out[100]: Text(0.5, 1.0, 'Histogram of Q4')



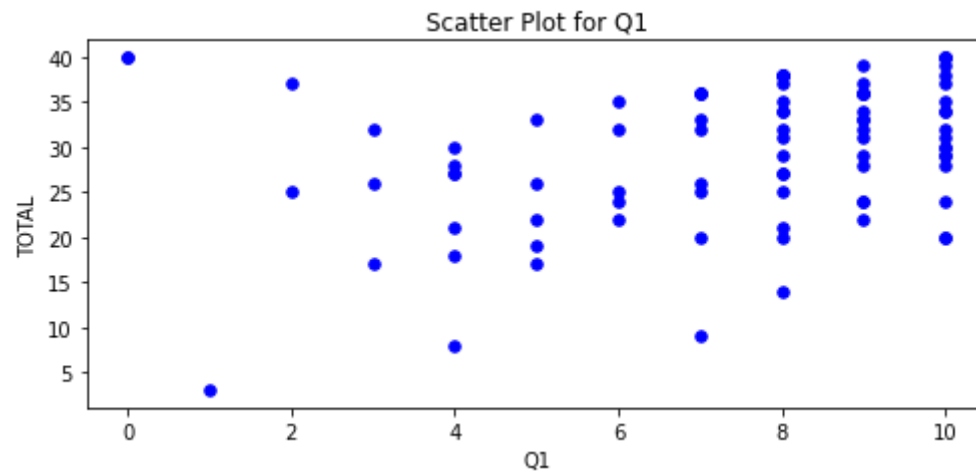
```
In [101]: plt.hist(df["Q5M10"],color='purple',bins=10,edgecolor='black')  
plt.xlabel("Marks scored in Q5")  
plt.ylabel("No.of students")  
plt.title("Histogram of Q5")
```

```
Out[101]: Text(0.5, 1.0, 'Histogram of Q5')
```



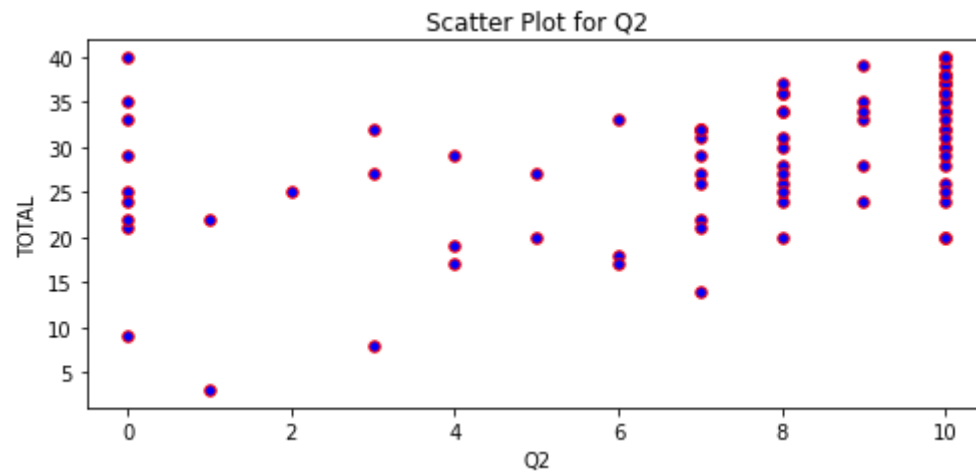
```
In [186]: df.plot.scatter(x = 'Q1', y = 'TOTAL',color='blue',s=30)  
plt.title("Scatter Plot for Q1")
```

Out[186]: Text(0.5, 1.0, 'Scatter Plot for Q1')



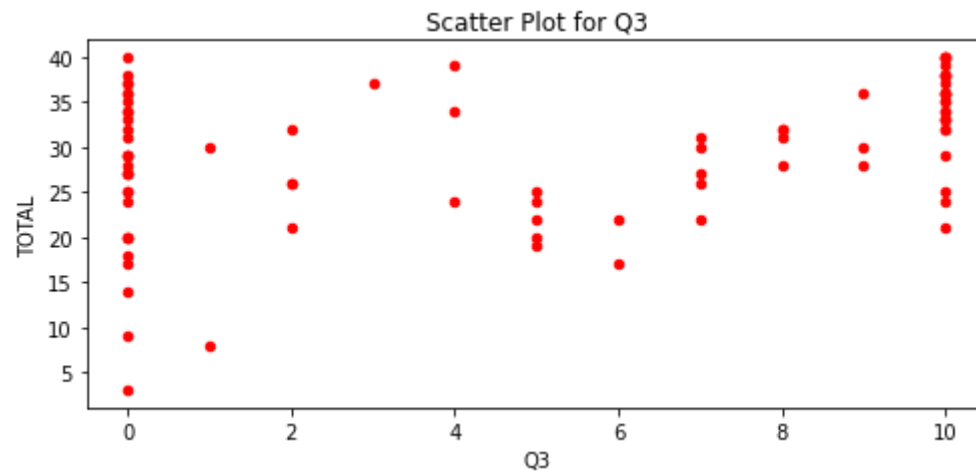
```
In [185]: df.plot.scatter(x = 'Q2', y = 'TOTAL',color='blue',edgecolors='red',s=30)  
plt.title("Scatter Plot for Q2")
```

Out[185]: Text(0.5, 1.0, 'Scatter Plot for Q2')



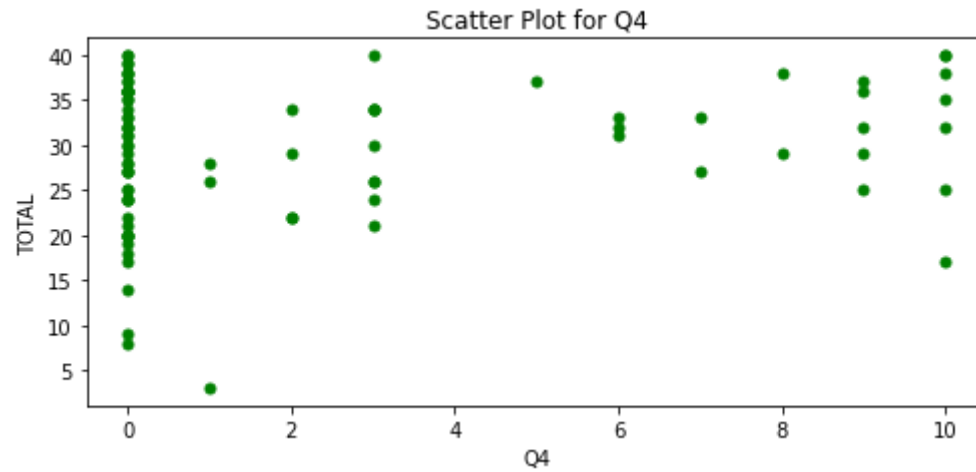

```
In [168]: df.plot.scatter(x = 'Q3', y = 'TOTAL',color='red')  
plt.title("Scatter Plot for Q3")
```

Out[168]: Text(0.5, 1.0, 'Scatter Plot for Q3')



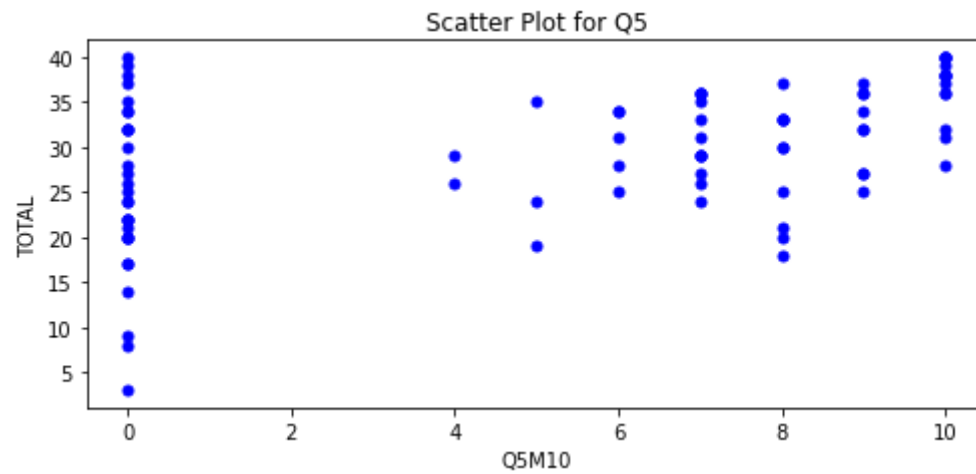
```
In [184]: df.plot.scatter(x = 'Q4', y = 'TOTAL',color='green',s=25)  
plt.title("Scatter Plot for Q4")
```

Out[184]: Text(0.5, 1.0, 'Scatter Plot for Q4')

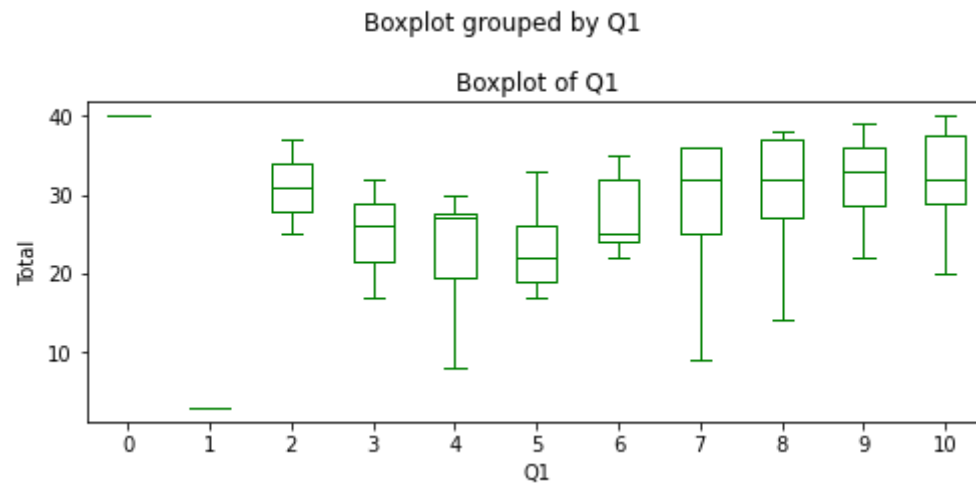


```
In [183]: df.plot.scatter(x = 'Q5M10', y = 'TOTAL',color='blue',s=25)  
plt.title("Scatter Plot for Q5")
```

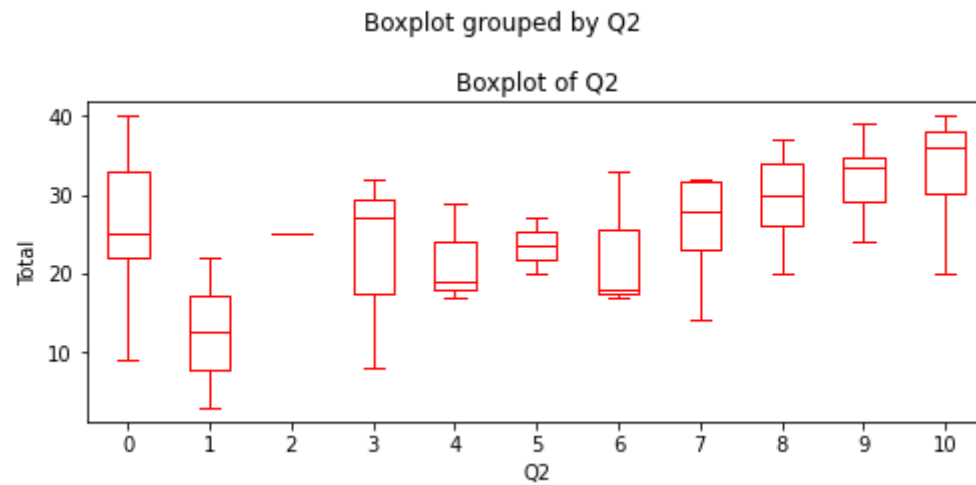
Out[183]: Text(0.5, 1.0, 'Scatter Plot for Q5')



```
In [218]: df.boxplot(by='Q1', column=['TOTAL'], grid=False, color='Green')  
plt.title("Boxplot of Q1")  
plt.ylabel("Total")  
plt.show()
```

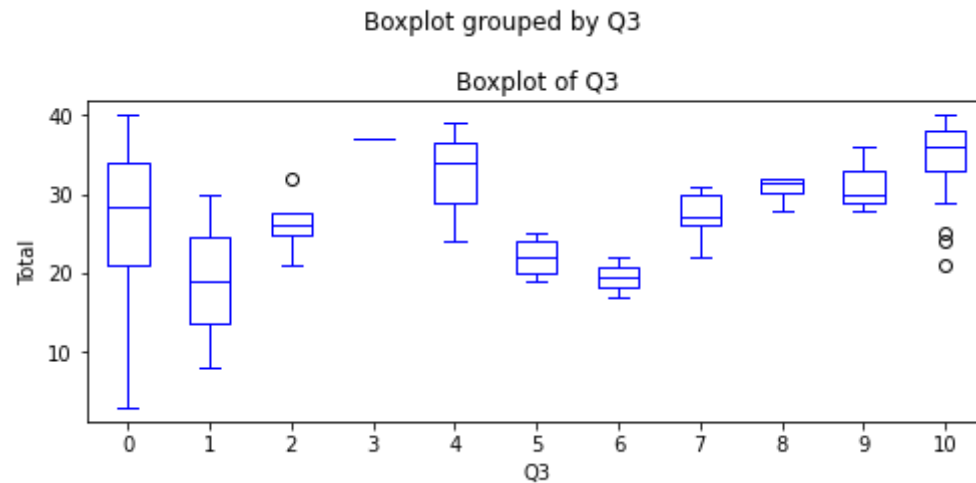


```
In [219]: df.boxplot(by='Q2', column=['TOTAL'], grid=False, color='red')  
plt.title("Boxplot of Q2")  
plt.ylabel("Total")  
plt.show()
```



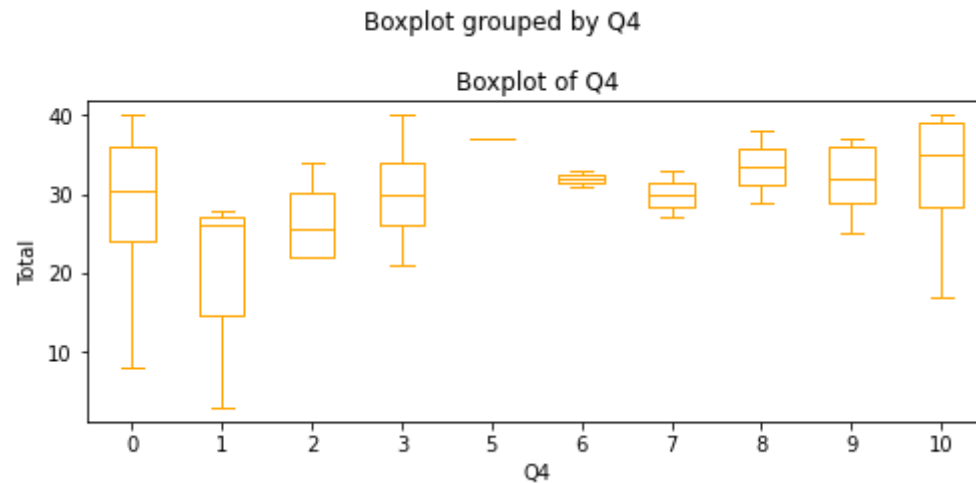
```
In [220]: df.boxplot(by='Q3', column=['TOTAL'], grid=False, color='blue')
plt.title("Boxplot of Q3")
plt.ylabel("Total")
plt.show()
```

```
Out[220]: <function matplotlib.pyplot.show(close=None, block=None)>
```



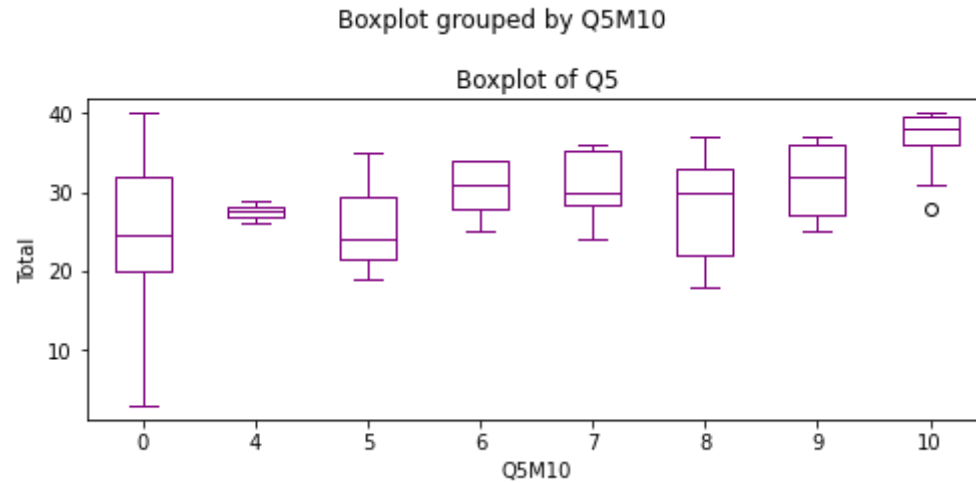
```
In [221]: df.boxplot(by='Q4', column=['TOTAL'], grid=False, color='Orange')  
plt.title("Boxplot of Q4")  
plt.ylabel("Total")  
plt.show()
```

```
Out[221]: <function matplotlib.pyplot.show(close=None, block=None)>
```



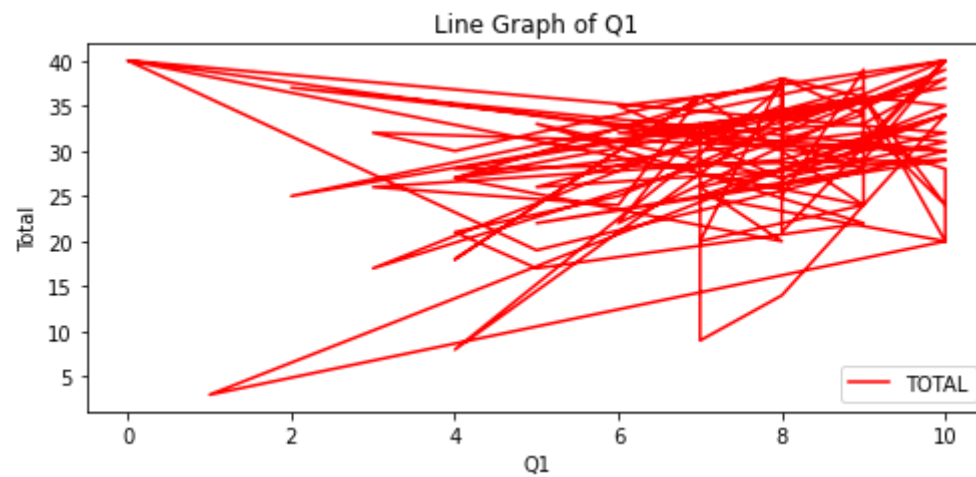
```
In [222]: df.boxplot(by='Q5M10', column=['TOTAL'], grid=False, color='purple')  
plt.title("Boxplot of Q5")  
plt.ylabel("Total")  
plt.show()
```

```
Out[222]: <function matplotlib.pyplot.show(close=None, block=None)>
```



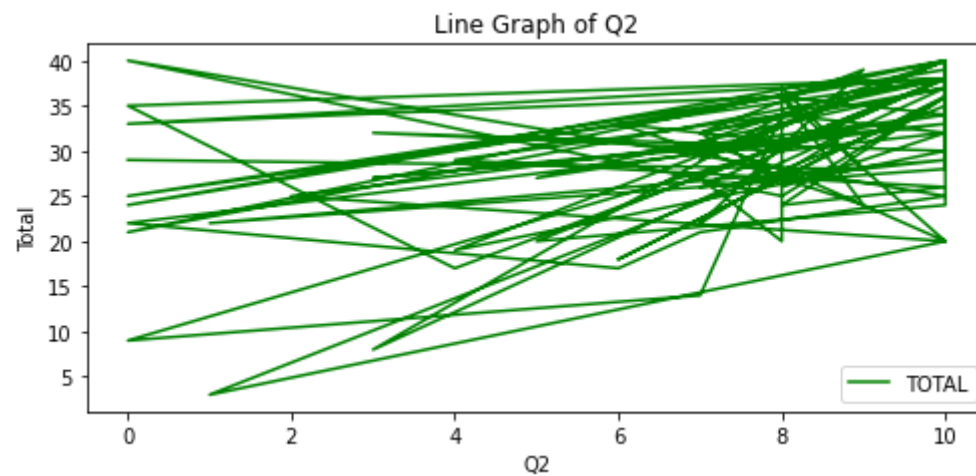

```
In [227]: df.plot.line(x='Q1',y='TOTAL',color='red')  
plt.title("Line Graph of Q1")  
plt.ylabel("Total")
```

```
Out[227]: Text(0, 0.5, 'Total')
```



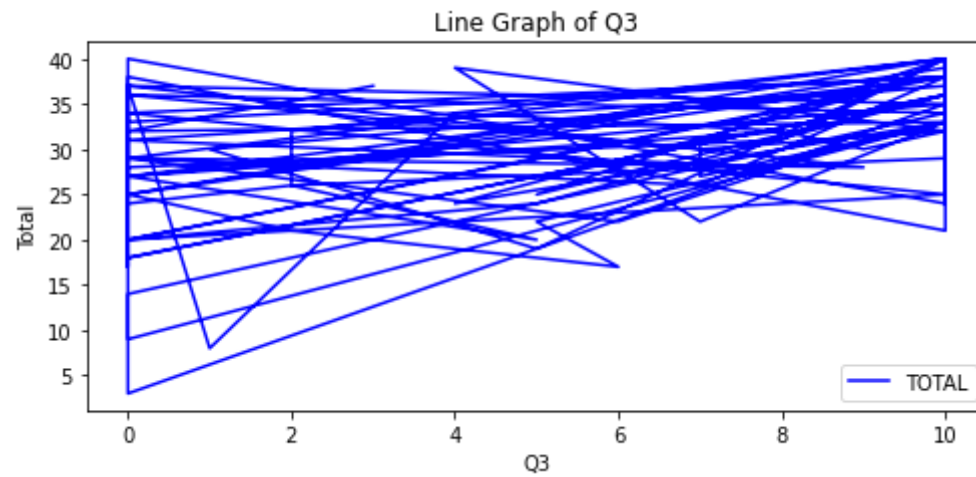
```
In [228]: df.plot.line(x='Q2',y='TOTAL',color='green')  
plt.title("Line Graph of Q2")  
plt.ylabel("Total")
```

```
Out[228]: Text(0, 0.5, 'Total')
```



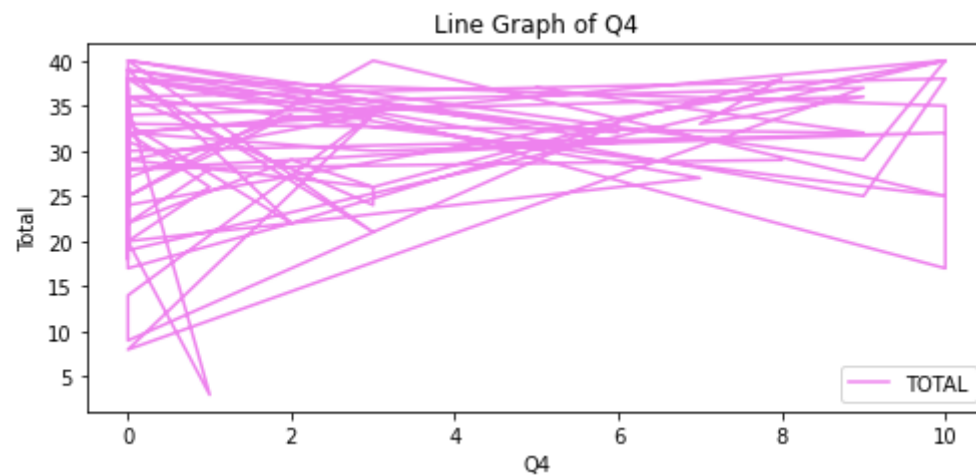
```
In [229]: df.plot.line(x='Q3',y='TOTAL',color='blue')  
plt.title("Line Graph of Q3")  
plt.ylabel("Total")
```

```
Out[229]: Text(0, 0.5, 'Total')
```



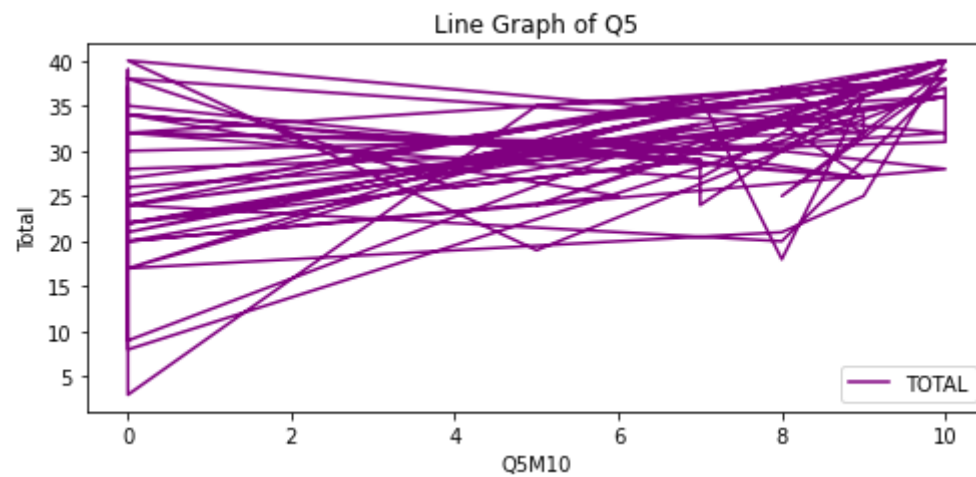
```
In [230]: df.plot.line(x='Q4',y='TOTAL',color='violet')  
plt.title("Line Graph of Q4")  
plt.ylabel("Total")
```

```
Out[230]: Text(0, 0.5, 'Total')
```



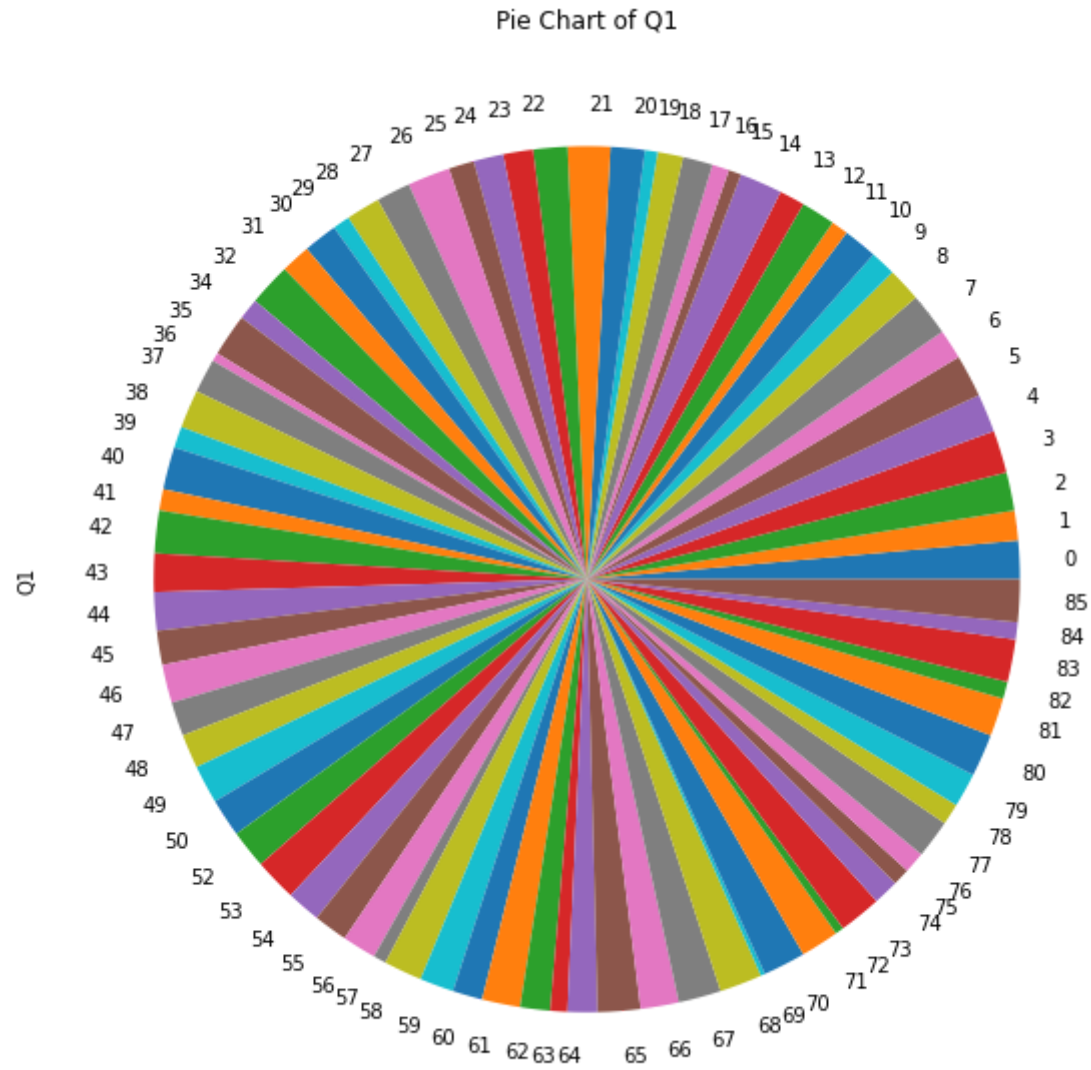
```
In [231]: df.plot.line(x='Q5M10',y='TOTAL',color='purple')  
plt.title("Line Graph of Q5")  
plt.ylabel("Total")
```

```
Out[231]: Text(0, 0.5, 'Total')
```



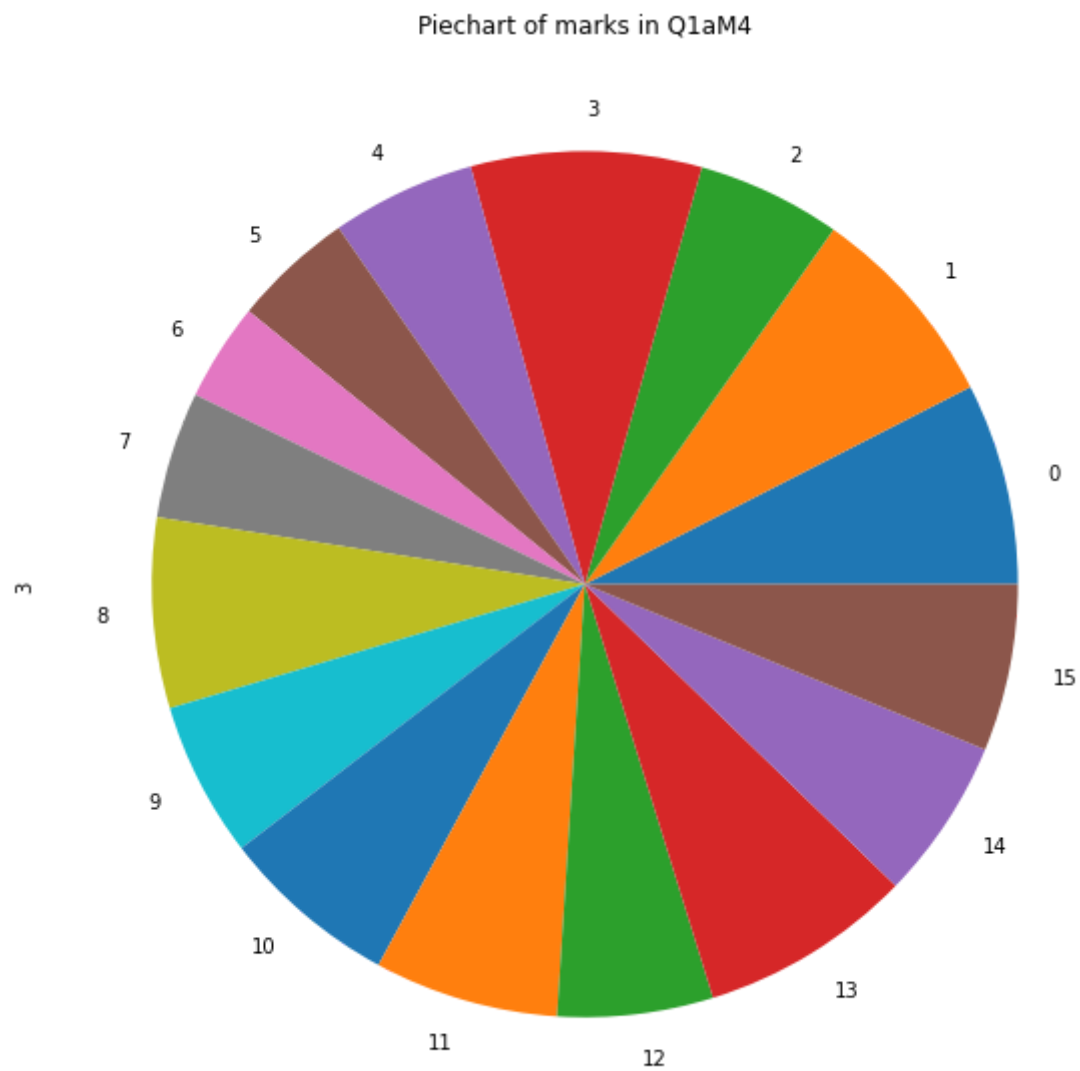
```
In [282]: df["Q1"].plot(kind='pie',subplots=True,figsize=(8,10))  
plt.title("Pie Chart of Q1")
```

Out[282]: Text(0.5, 1.0, 'Pie Chart of Q1')



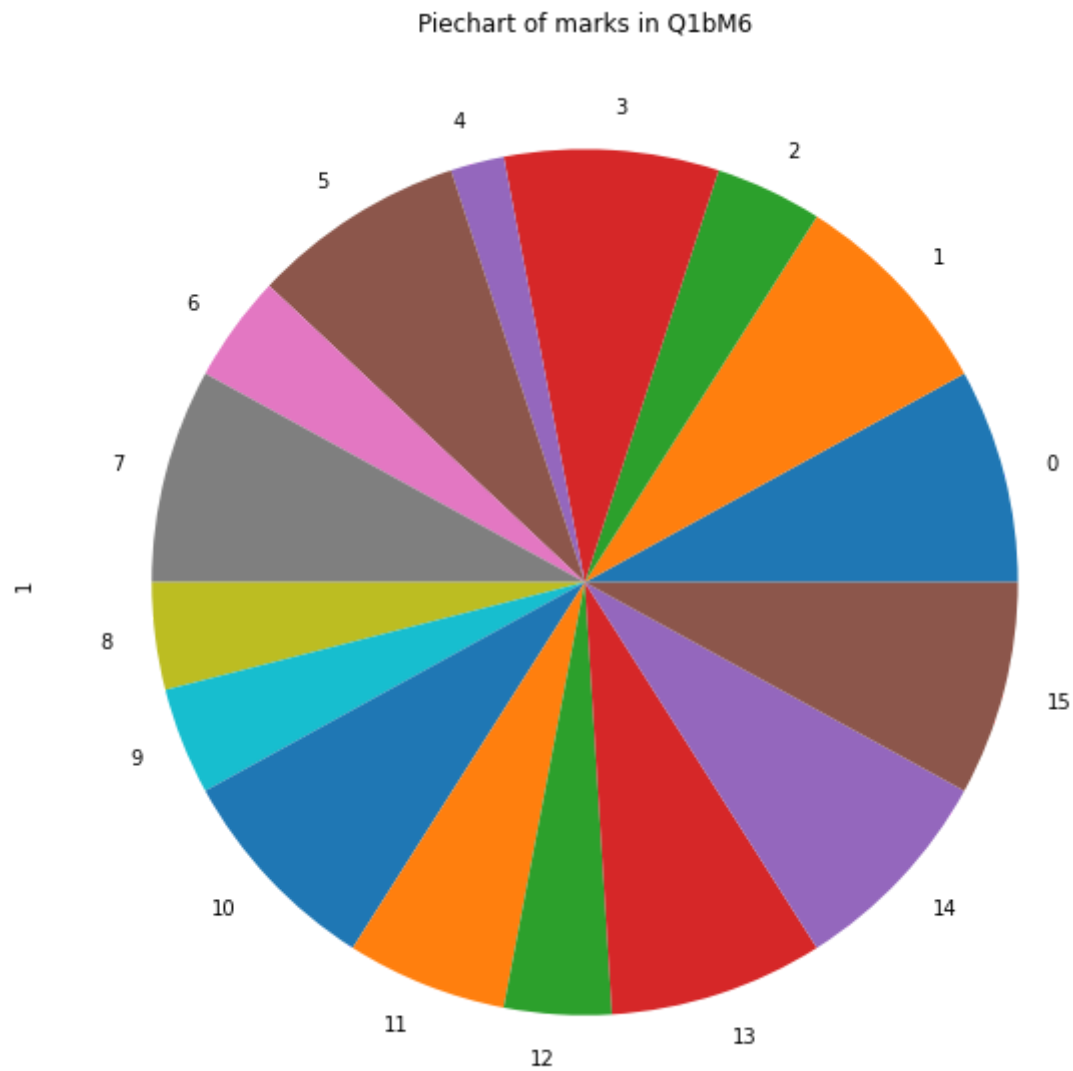

```
In [280]: n=pd.read_csv("class_marks.csv",skiprows=70)
n
n['3'].plot(kind='pie',figsize=(8,10))
plt.title("Piechart of marks in Q2")
```

Out[280]: Text(0.5, 1.0, 'Piechart of marks in Q1aM4')



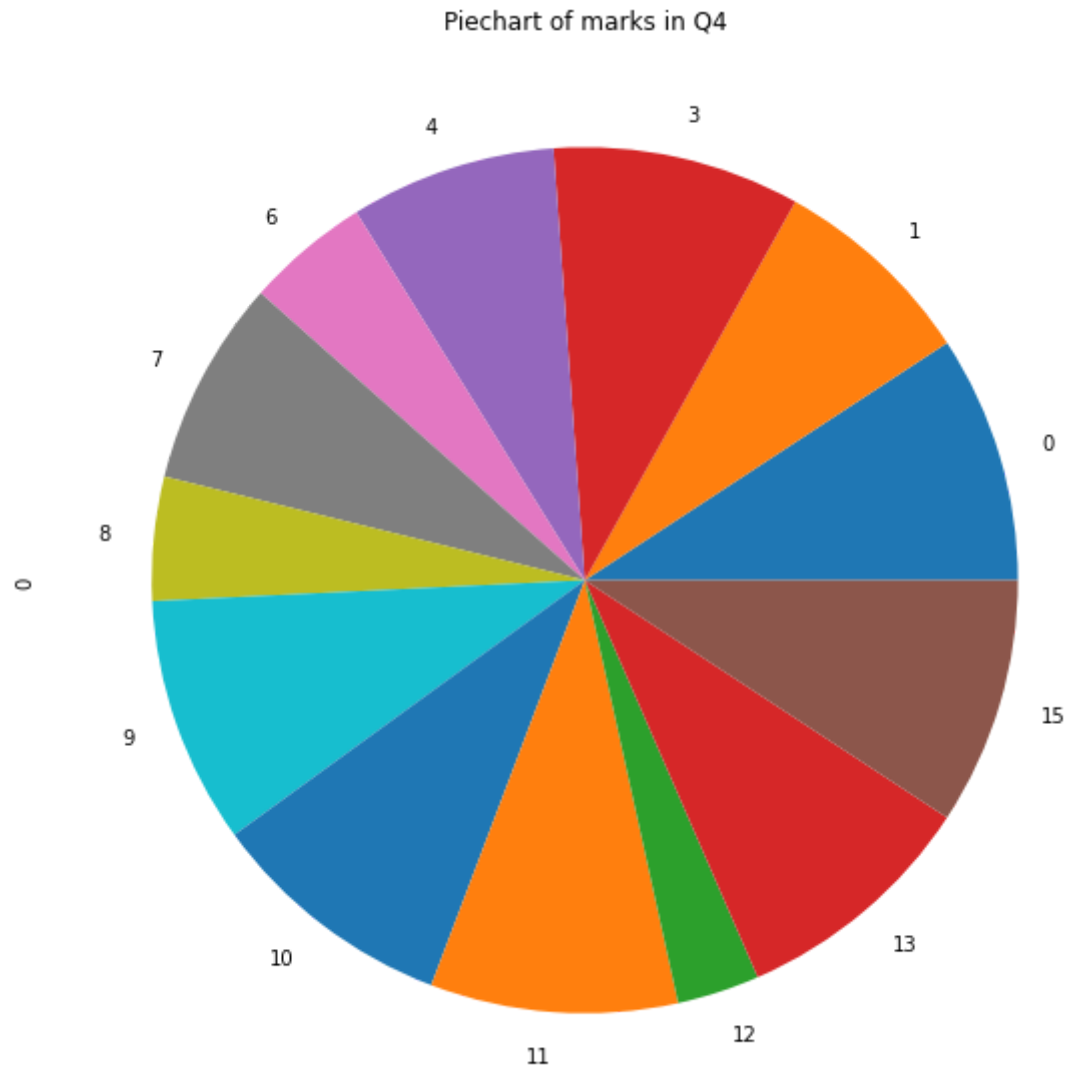

```
In [283]: n=pd.read_csv("class_marks.csv",skiprows=70)
n
n['1'].plot(kind='pie',figsize=(8,10))
plt.title("Piechart of marks in Q3")
```

Out[283]: Text(0.5, 1.0, 'Piechart of marks in Q1bM6')



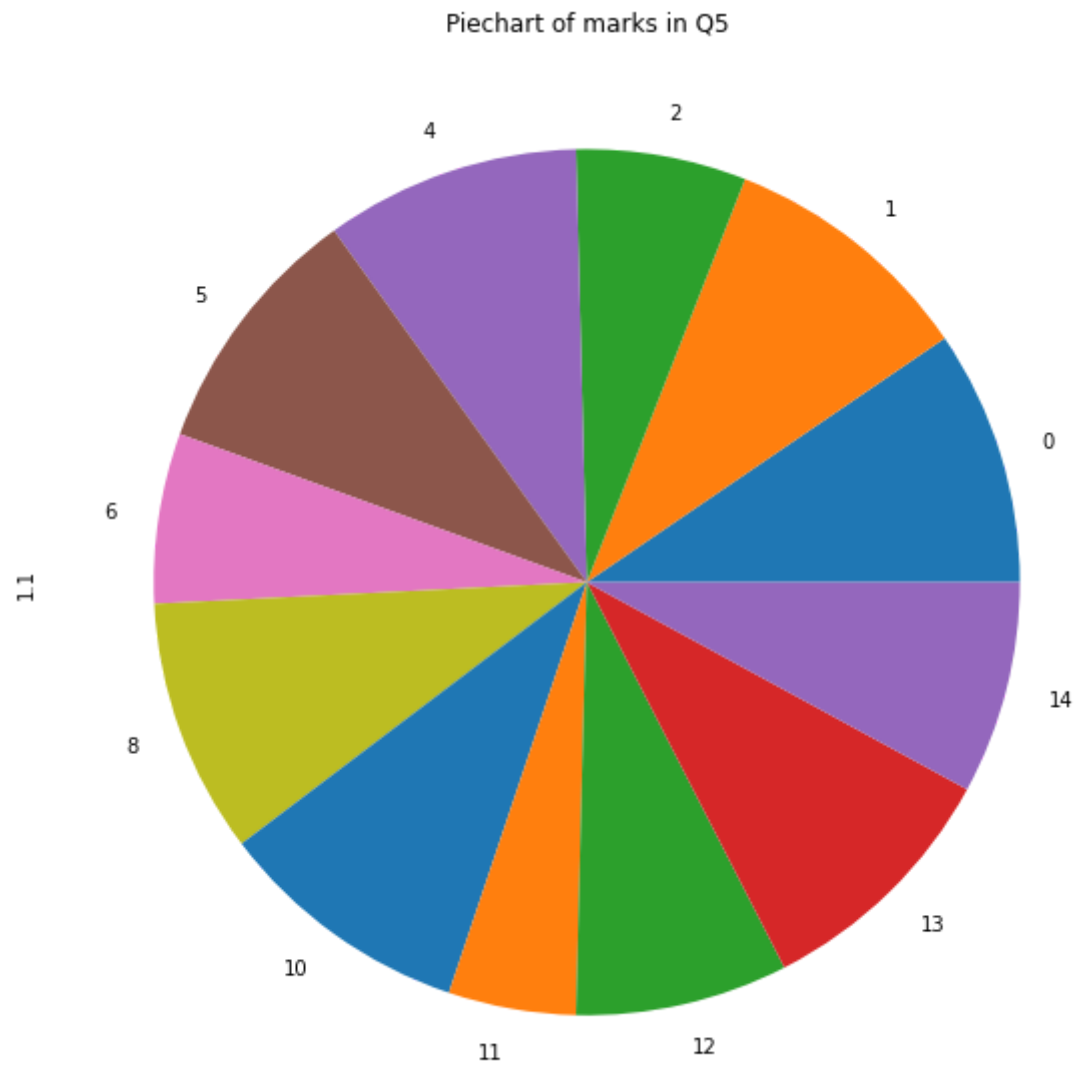

```
In [284]: n=pd.read_csv("class_marks.csv",skiprows=70)
n
n['0'].plot(kind='pie',figsize=(8,10))
plt.title("Piechart of marks in Q4")
```

Out[284]: Text(0.5, 1.0, 'Piechart of marks in Q4')




```
In [286]: n=pd.read_csv("class_marks.csv",skiprows=70)
n
n['1.1'].plot(kind='pie',figsize=(8,10))
plt.title("Piechart of marks in Q5")
```

Out[286]: Text(0.5, 1.0, 'Piechart of marks in Q5')



In []: *#Thank you sir*