```
 1 import matplotlib.pyplot as plt
 2 import pandas as pd
 3 import xlrd
 4 import seaborn as sns
 5 import numpy as np
 6 # ----------------------------------------------------------------------
 7 # Step 1: Import the the Data_Set using Pandas (Data_Set_5.csv)
 8
 9 df = pd.read_csv('Data_Set_5.csv')
10 # ----------------------------------------------------------------------
11 # Step 2: Find the cause of death for length of region
12
13 var = df.groupby('Cause_of_Death').Length_of_Reign.sum()
14 fig = plt.figure(1)
15 var.plot(kind='bar')
16 # ----------------------------------------------------------------------
17 # Step 3: Find the cause of death for length of region
18
19 var = df.groupby(['Emperor','Cause_of_Death']).Length_of_Reign.sum()
20 var.unstack().plot(kind='bar',stacked=True,  color=['red','blue'], grid=False)
21 # ----------------------------------------------------------------------
22 # Step 4: Find the cause of death for length of region
23
24 fig=plt.figure(3)
25 sns.violinplot(df['Cause_of_Death'], df['Length_of_Reign'])
26 # ----------------------------------------------------------------------
27 # Step 5: Create a pie chart showing the fraction of all Roman Emperors that were assassinated.
28
29 fig=plt.figure(4)
30 var = df.groupby(['Cause_of_Death']).sum().stack()
31 temp = var.unstack()
32 type(temp)
33 Length_of_Reign = temp['Length_of_Reign']
34 labe = temp.index
35 plt.axis("equal")
```

```
plt.pie(Length_of_Reign, labels=labe, autopct="%1.1f%%")

plt.show()


```