In [1]:
```
print("Name :")
print("We will learn how to perform group by operation and count number of
print("We will learn how to perform group by operation and count the status
print("We will learn how to search the number of active rockets, and perfor
```

```
Name :
We will learn how to perform group by operation and count number of Missi
ons as per the company, and plot a bar graph out of it
We will learn how to perform group by operation and count the status of t
he Missions, and plot a pie chart out of it
We will learn how to search the number of active rockets, and perform gro
up by operation and count number of active rockets as per the company and
plot a bar graph out of it
```

In [2]:
```
import  numpy as np
import pandas as pd
import matplotlib .pyplot as plt

dataframe = pd.read_csv("space_Corrected.csv")
df=dataframe.dropna()

df
```

```
---------------------------------------------------------------------------
--
ModuleNotFoundError                       Traceback (most recent call las
t)
/var/folders/1d/dx5rjvf91qq7f432s9k1r3780000gp/T/ipykernel_32668/15698082
01.py in <module>
----> 1 import  numpy as np
      2 import pandas as pd
      3 import matplotlib .pyplot as plt
      4
      5 dataframe = pd.read_csv("space_Corrected.csv")

ModuleNotFoundError: No module named 'numpy'
```

In [3]:
```
#Activity-1
#Find total number of missions by each company, and plot a bar graph on it
#First group by Company Name and count Status Mission and create a new data
group_by_name = df.groupby('Company Name')['Status Mission'].count().reset_
print(group_by_name)
fig = plt.subplots(figsize=(16,8))
plt.title('Total Missions (Since 1957)', fontsize=20)
plt.xlabel('Company Name', fontsize=16)
plt.ylabel('Mission Counts', fontsize=16)
plt.xticks(rotation='vertical')

#Then get all the Company Name and Status Mission count and use these 2 val
label = group_by_name['Company Name']
value = group_by_name['Status Mission']
plt.bar(label, value,width=0.4, color=('red','blue','green','pink','yellow'
```

```
---------------------------------------------------------------------------
--
NameError                                 Traceback (most recent call las
t)
/var/folders/1d/dx5rjvf91qq7f432s9k1r3780000gp/T/ipykernel_32668/40526094
94.py in <module>
      2 #Find total number of missions by each company, and plot a bar gr
aph on it
      3 #First group by Company Name and count Status Mission and create
 a new dataframe out of it
----> 4 group_by_name = df.groupby('Company Name')['Status Mission'].coun
t().reset_index()
      5 print(group_by_name)
      6 fig = plt.subplots(figsize=(16,8))

NameError: name 'df' is not defined
```

```
 #Activity-2
#Find out the percentage of rocket Success, Failure, Partial Failure, and
Prelaunch Failure. And plot a pie chart
```

In [ ]:
```
#Activity-3
# Find the number of Active Rockets as per the company and plot a bar grap

#First search where Status Rocket column value is equal to StatusActive

#Then group by Company Name and count Status Rocket and create a new datafr

#Then get all the Company Name and Status Rocket count and use these 2 valu
```

In [4]:
```
group_by_status = df.groupby('Status Mission')['Status Rocket'].count().res
print(group_by_status)
value = group_by_status['Status Rocket']
label = group_by_status['Status Mission']
plt.pie(value,labels=label, autopct='%0.1f%%', radius=2)
plt.show()
```

```
---------------------------------------------------------------------------
--
NameError                                 Traceback (most recent call las
t)
/var/folders/1d/dx5rjvf91qq7f432s9k1r3780000gp/T/ipykernel_32668/14051183
17.py in <module>
----> 1 group_by_status = df.groupby('Status Mission')['Status Rocket'].c
ount().reset_index
      2 print(group_by_status)
      3 value = group_by_status['Status Rocket']
      4 label = group_by_status['Status Mission']
      5 plt.pie(value,labels=label, autopct='%0.1f%%', radius=2)

NameError: name 'df' is not defined
```

In [ ]:

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