Lab.13 2D and 3D Data Visualization using Matplotlib and Seabron

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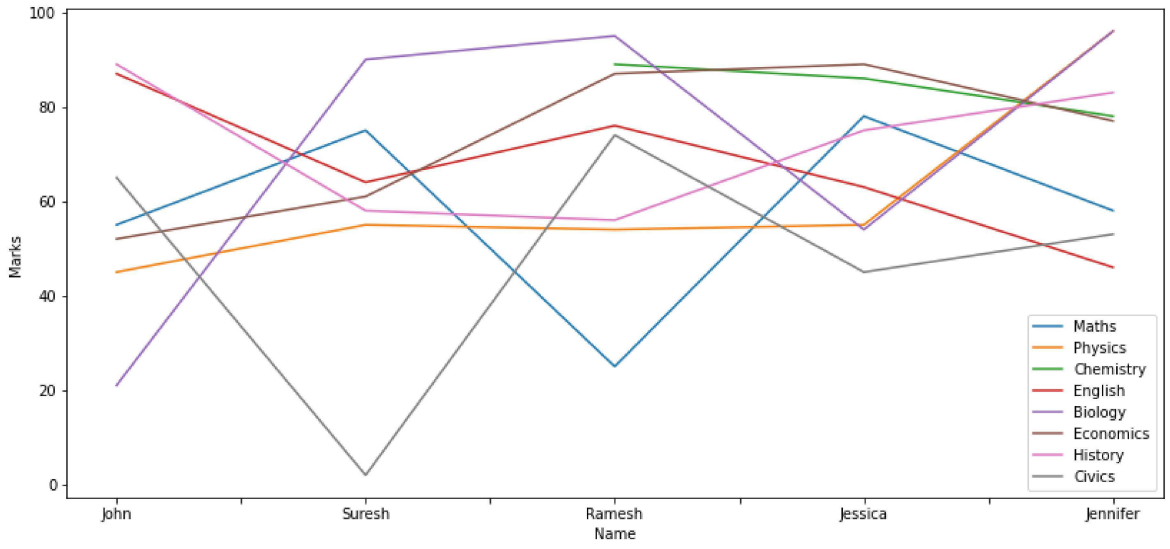
Matplotlib :

Line

In [1]:
```
import pandas as pd
import matplotlib.pyplot as plt
plt.rcParams["figure.figsize"] = [11.50, 5.50]
plt.rcParams["figure.autolayout"] = True

df = pd.read_csv('C:/Users/arulk/OneDrive/Desktop/student_marks.csv')
df.set_index('Name').plot(ylabel='Marks')
plt.show()
```



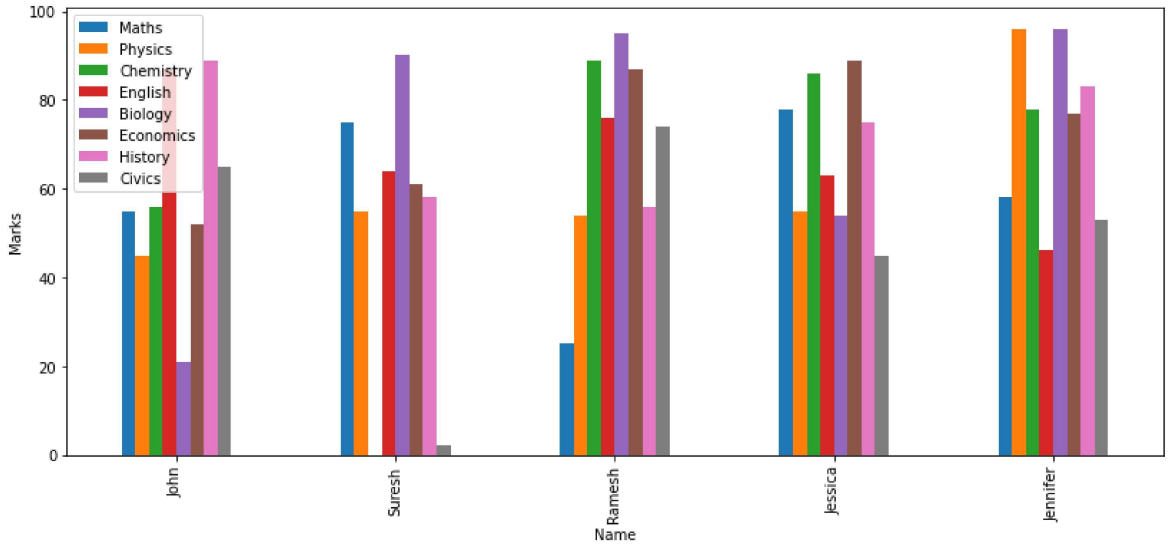
Bar

In [2]:

```
import pandas as pd
import matplotlib.pyplot as plt
plt.rcParams["figure.figsize"] = [11.50, 5.50]
plt.rcParams["figure.autolayout"] = True

df = pd.read_csv('C:/Users/arulk/OneDrive/Desktop/student_marks.csv',)

df.set_index('Name').plot(kind = 'bar',ylabel='Marks')
plt.show()
```

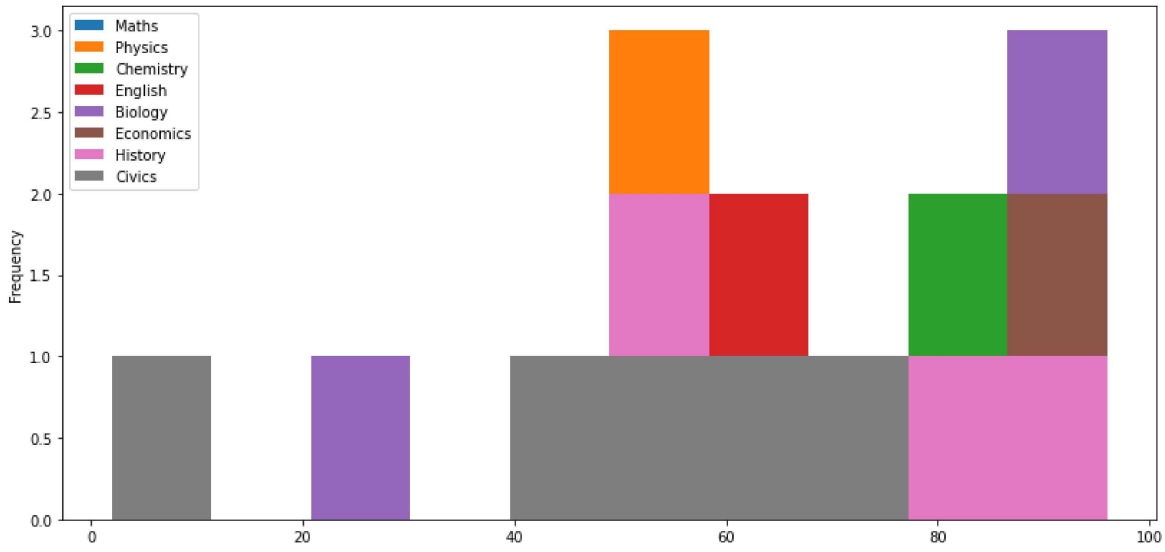


Histogram

In [3]:
```
import pandas as pd
import matplotlib.pyplot as plt
plt.rcParams["figure.figsize"] = [11.50, 5.50]
plt.rcParams["figure.autolayout"] = True

df = pd.read_csv('C:/Users/arulk/OneDrive/Desktop/student_marks.csv',)

df.plot(kind = 'hist')
plt.show()
```

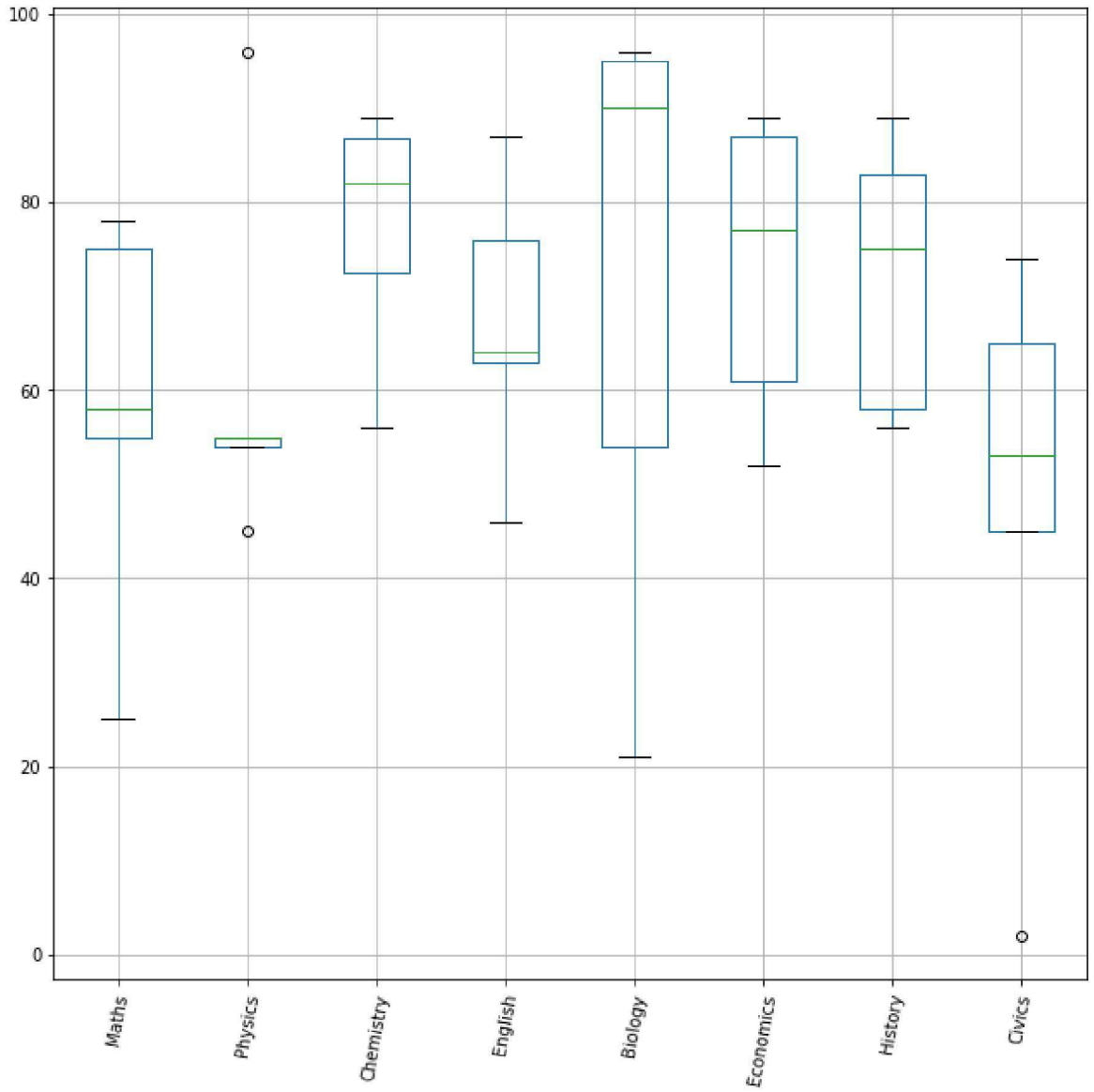


Box Plot

In [4]:

```
import pandas as pd
import matplotlib.pyplot as plt
df = pd.read_csv('C:/Users/arulk/OneDrive/Desktop/student_marks.csv')
boxplot = df.boxplot(figsize = (9,9), rot = 80, fontsize= '10')

plt.show()
```



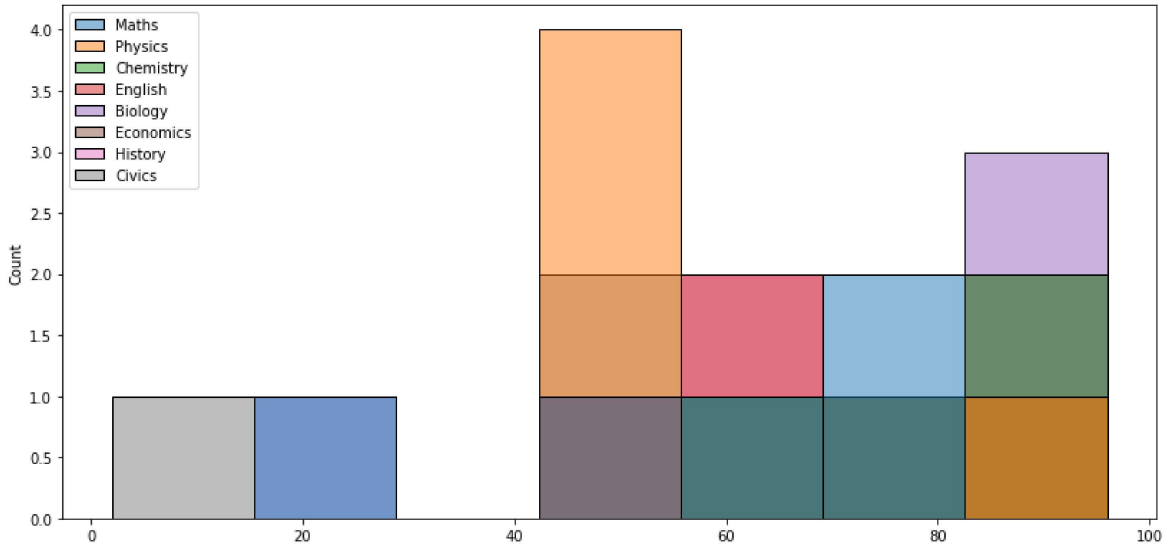
Seabron :

Histogram

In [5]:
```
import seaborn as sns
import pandas

data = pandas.read_csv('C:/Users/arulk/OneDrive/Desktop/student_marks.csv')
sns.histplot(data)
```

Out[5]: <AxesSubplot:ylabel='Count'>



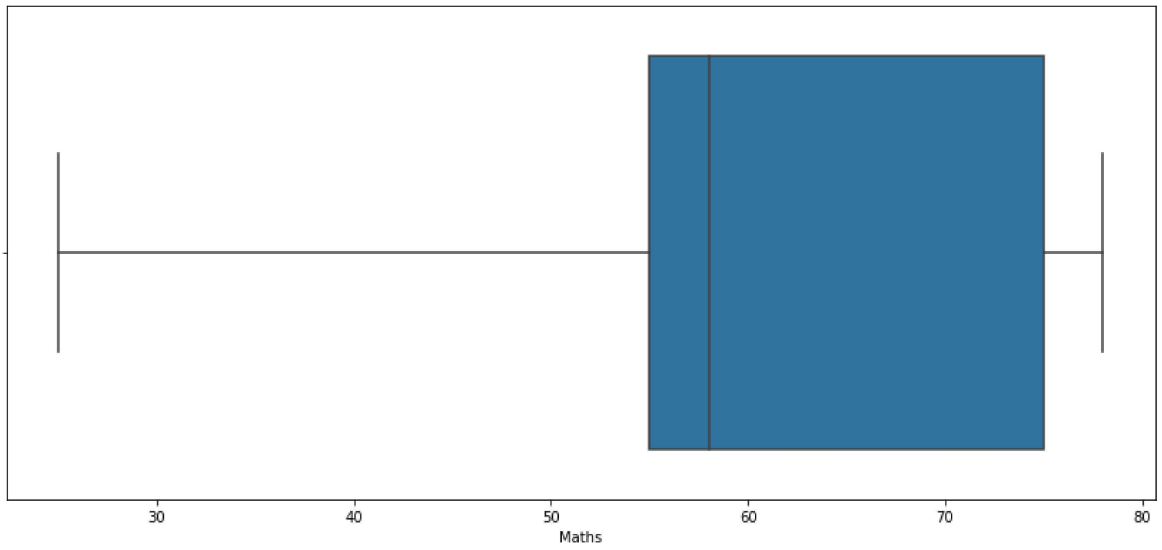
Box Plot

In [7]:
```
import seaborn as sns
import pandas

data = pandas.read_csv('C:/Users/arulk/OneDrive/Desktop/student_marks.csv')
s=sns.boxplot(data["Maths"])
print(s)
```

```
AxesSubplot(0.125,0.125;0.775x0.755)

C:\Users\arulk\anaconda3\lib\site-packages\seaborn\_decorators.py:36: Futur
eWarning: Pass the following variable as a keyword arg: x. From version 0.1
2, the only valid positional argument will be `data`, and passing other arg
uments without an explicit keyword will result in an error or misinterpreta
tion.
  warnings.warn(
```



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