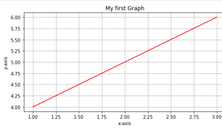
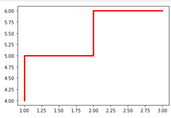
In [2]:
```
import matplotlib.pyplot as plt
```

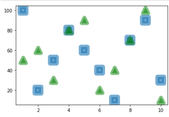
In [15]:
```
x=[1,2,3]
y=[4,5,6]
plt.figure(figsize=(8,4))
plt.plot(x,y,"r")
plt.title("My first Graph")
plt.xlabel("x-axis")
plt.ylabel("y-axis")
plt.grid()
plt.show()
```



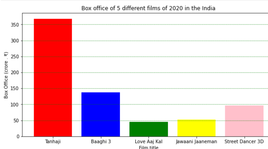
In [20]:
```
plt.step(x,y,lw=3,color='r')
plt.show()
```



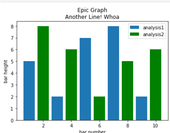
In [35]:
```
x=[1,2,3,4,5,6,7,8,9,10]
y=[10,20,30,40,50,60,70,80,90,100]
import random
random.shuffle(y)
plt.scatter(x,y,marker="s",s=200,linewidth=10,alpha=0.6)
x1=[1,2,3,4,5,6,7,8,9,10]
y1=[10,20,30,40,50,60,70,80,90,100]
random.shuffle(y1)
plt.scatter(x1,y1,marker="^",color="green",s=150,linewidth=8,alpha=0.5)
plt.show()
```



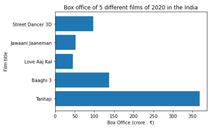
In [45]:
```
films = ['Tanhaji', 'Baaghi 3', 'Love Aaj Kal', 'Jawaani Jaaneman', 'Street Dancer 3D']

box_office = [367.65, 137.05, 44.77, 52.63, 97]

c=["red","blue","green","yellow","pink"]

plt.figure(figsize=(10,5))

plt.bar(films, box_office,color=c)

plt.grid(color='green', linestyle=':', linewidth=1.0, axis='y', alpha=1)

plt.ylabel('Box Office (crore . ₹)') # labling y-axis

plt.xlabel('Film title')            # labling x-axis

plt.title('Box office of 5 different films of 2020 in the India')

plt.show()
```



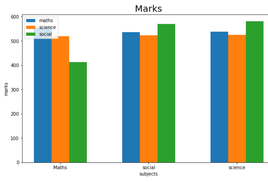
In [49]:
```
plt.bar([1,3,5,7,9],[5,2,7,8,2],label="analysis1")
plt.bar([2,4,6,8,10],[6,6,2,5,6],label="analysis2", color='g')
plt.legend()
plt.xlabel('bar number')
plt.ylabel('bar height')

plt.title('Epic Graph\nAnother Line! Whoa')

plt.show()
```



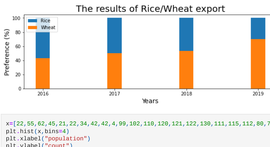
In [50]:
```
plt.barh(films, box_office)

plt.xlabel('Box Office (crore . ₹)')
plt.ylabel('Film title')
plt.title('Box office of 5 different films of 2020 in the India')

plt.show()
```



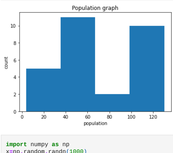
In [73]:
```
x=(554,536,538)
y=(518,523,525)
z=(413,570,580)

franch_scores=(495,505,499)
w=0.2

import numpy as np
bar1=np.arange(len(x))
bar2=[i+w for i in bar1]
bar3=[i+w*2 for i in bar1]
plt.figure(figsize=(10,6))

plt.bar(bar1,x,width=w,label="maths")
plt.bar(bar2,y,width=w,label="science")
plt.bar(bar3,z,width=w,label="social")

plt.xlabel("subjects")
plt.ylabel("marks")

plt.legend(loc=2)

plt.xticks(bar1+w,("Maths","social","science"))
plt.title("Marks", fontsize=20)
plt.show()
```



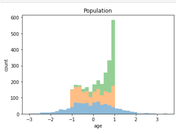
In [83]:
```
years = ['2016', '2017', '2018', '2019']
rice = [57, 50, 47, 30]
wheat = [43, 50, 53, 70]

w=0.2

plt.figure(figsize=(10, 3))
plt.bar(years, rice, label='Rice',bottom=wheat,width=w)
plt.bar(years, wheat, label='Wheat',width=w)

plt.xlabel('Years', fontsize=14)
plt.ylabel('Preference (%)', fontsize=14)
plt.title('The results of Rice/Wheat export', fontsize=20)
plt.legend(loc=2)
plt.show()
```



In [17]:
```
x=[22,55,62,45,21,22,34,42,42,4,99,102,110,120,121,122,130,111,115,112,80,75,65,54,44,43,42,48]
plt.hist(x,bins=14)
plt.xlabel("Population")
plt.ylabel("count")
plt.title("Population graph")
plt.show()
```



In [16]:
```
import numpy as np
x=np.random.randn(1000)
y=np.sin(x)
z=np.cos(x)
plt.xlabel("age")
plt.ylabel("count")
plt.title("Population")
plt.hist([x,y,z],bins="auto",stacked=True,alpha=0.5)
plt.show()
```



In [ ]:
```
```