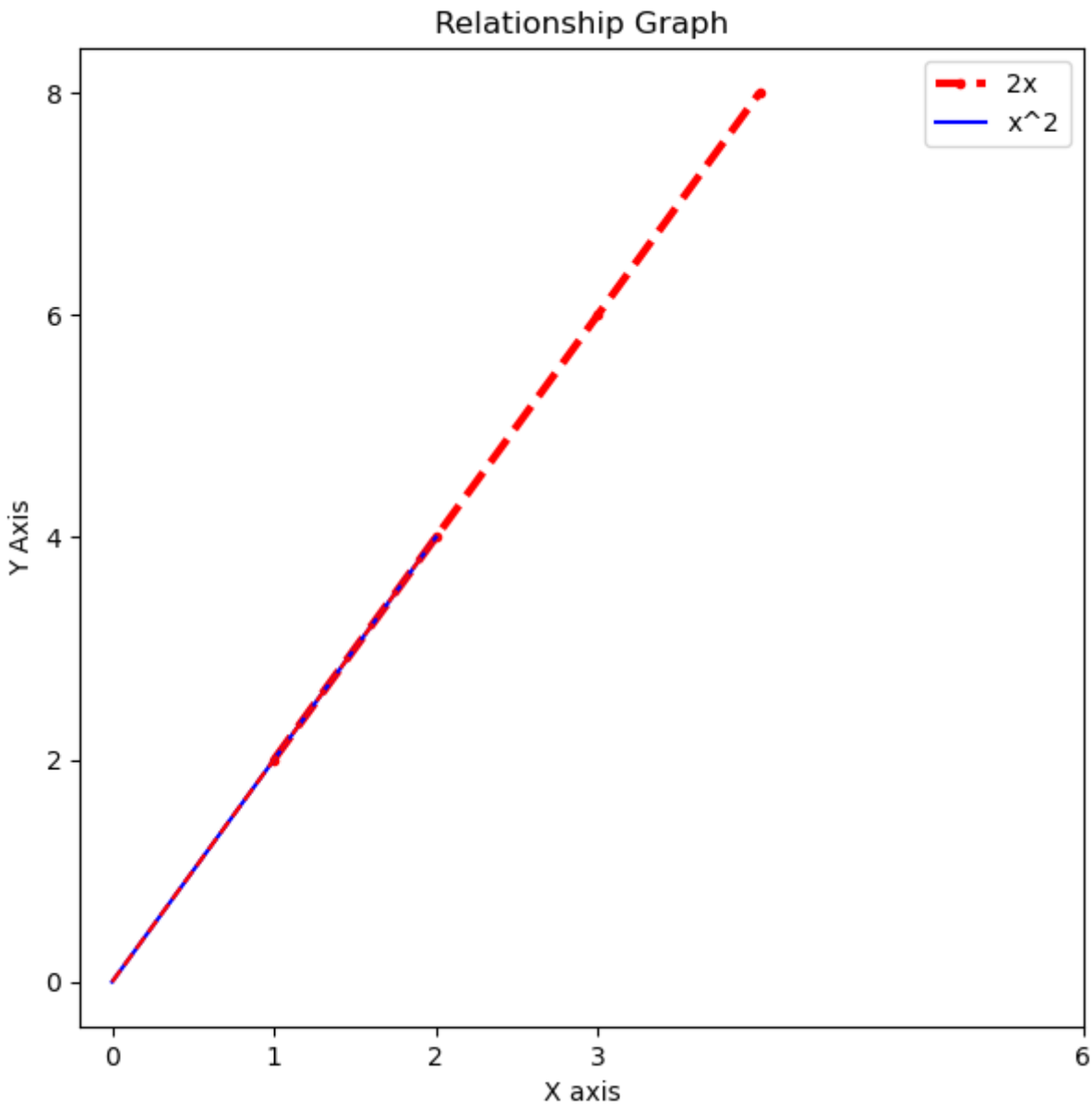
In [1]:
```
import matplotlib.pyplot as plt
import numpy as np
import pandas as pd
```

Basic Graph

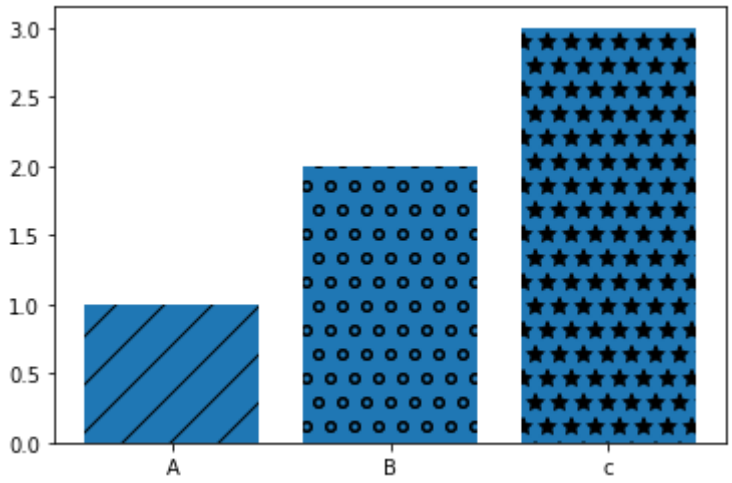
In [66]:
```
## first list or array is the horizontal axes and the second is the vertical axes
x = [1,2,3,4]
y = [2,4,6,8]
plt.figure(figsize=(7,7), dpi = 100)
plt.plot(x,y, label ='2x', color= 'red', linewidth = '3', marker='.', linestyle ='--

#line number two using the numpy library
x2 = np.arange(0,4.5,0.5)
plt.plot(x2[:5], x2[:5]*2,color ='blue',label='x^2')
plt.plot(x2[:5], x2[:5]*2,'r--')

plt.title('Relationship Graph')
plt.xlabel('X axis')
plt.ylabel('Y Axis')
plt.xticks([0,1,2,3,6,]) #The ticks are more or less like a scale or the size of the
plt.yticks([0,2,4,6,8]) #ticks are scale and it shows how the graph illustration sho
plt.legend()
plt.savefig('mygraph.png',dpi=300)
plt.show()
```



Bar chart

In [72]:

```
labels = ['A', 'B','c']#horizontal
values = [1,2,3] #vertical
bars = plt.bar(labels, values)
plt.figure(figsize =(6,4)) # resizing the original size
bars[0].set_hatch('/')
bars[1].set_hatch('o')
bars[2].set_hatch('*')
plt.show()
```




```
<Figure size 432x288 with 0 Axes>
```

In [ ]: