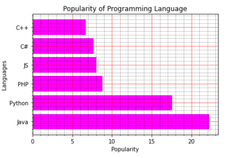
In [2]:
```
''' 1.Write a Python programming to display a bar chart of the popularity of programming Languages. Sample data:
Programming languages: Java, Python, PHP, JavaScript, C#, C++
Popularity: 22.2, 17.6, 8.8, 8, 7.7, 6.7
'''
from matplotlib import pyplot as plt
pl=['Java', 'Python','PHP', 'JavaScript', 'C#', 'C++']
popularity=[22.2, 17.6, 8.8, 8, 7.7, 6.7]
pl_pos=[i for i, _ in enumerate(pl)]
plt.bar(pl_pos, popularity, color='green')
plt.xlabel("Languages")
plt.ylabel("Popularity")
plt.title("Popularity of Programming Language")
plt.xticks(pl_pos, pl)
plt.minorticks_on()
plt.grid(which='major', linestyle='-', linewidth='0.5', color='red')
plt.grid(which='minor', linestyle=':', linewidth='0.5', color='black')
plt.show()
```

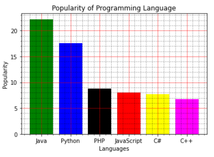
In [21]:
```
# 2.Write a Python programming to display a horizontal bar chart of the popularity of programming Languages.

pl=['Java', 'Python', 'PHP', 'JS', 'C#', 'C++']
popularity=[22.2, 17.6, 8.8, 8, 7.7, 6.7]
pl_pos = [i for i, _ in enumerate(pl)]
plt.barh(pl_pos, popularity, color='magenta')
plt.xlabel("Popularity")
plt.ylabel("Languages")
plt.title("Popularity of Programming Language")
plt.yticks(pl_pos, pl)
plt.minorticks_on()
plt.grid(which='major', linestyle='-', linewidth='0.5', color='red')
plt.grid(which='minor', linestyle=':', linewidth='0.5', color='black')
plt.show()
```



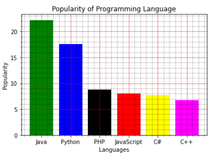
In [20]:
```
# 3.Write a Python programming to display a bar chart of the popularity of programming Languages. Use uniform color.

pl=['Java', 'Python', 'PHP', 'JavaScript', 'C#', 'C++']
popularity=[22.2, 17.6, 8.8, 8, 7.7, 6.7]
pl_pos = [i for i, _ in enumerate(pl)]
plt.bar(pl_pos, popularity, color=['green', 'blue', 'black', 'red', 'yellow', 'magenta'])
plt.xlabel("Languages")
plt.ylabel("Popularity")
plt.title("Popularity of Programming Language")
plt.xticks(pl_pos, pl)
plt.minorticks_on()
plt.grid(which='major', linestyle='-', linewidth='0.5', color='red')
plt.grid(which='minor', linestyle=':', linewidth='0.5', color='black')
plt.show()
```



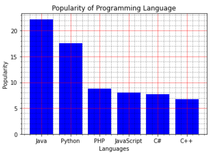
In [13]:
```
# 4.Write a Python programming to display a bar chart of the popularity of programming Languages.
# Use different color for each bar

pl=['Java', 'Python', 'PHP', 'JavaScript', 'C#', 'C++']
popularity = [22.2, 17.6, 8.8, 8, 7.7, 6.7]
pl_pos = [i for i, _ in enumerate(pl)]
plt.bar(pl_pos, popularity, color=['green', 'blue', 'black', 'red', 'yellow', 'magenta'])
plt.xlabel("Languages")
plt.ylabel("Popularity")
plt.title("Popularity of Programming Language")
plt.xticks(pl_pos, pl)
plt.minorticks_on()
plt.grid(which='major', linestyle='-', linewidth='0.5', color='red')
plt.grid(which='minor', linestyle=':', linewidth='0.5', color='black')
plt.show()
```



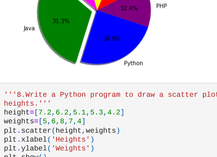
In [29]:
```
# 5.Write a Python programming to display a bar chart of the popularity of programming Languages. Make blue border to each bar

pl=['Java', 'Python', 'PHP', 'JavaScript', 'C#', 'C++']
popularity = [22.2, 17.6, 8.8, 8, 7.7, 6.7]
pl_pos = [i for i, _ in enumerate(pl)]
plt.bar(pl_pos, popularity, color='blue')
plt.xlabel("Languages")
plt.ylabel("Popularity")
plt.title("Popularity of Programming Language")
plt.xticks(pl_pos, pl)
plt.minorticks_on()
plt.grid(which='major', linestyle='-', linewidth='0.5', color='red')
plt.grid(which='minor', linestyle=':', linewidth='0.5', color='black')
plt.show()
```



In [20]:
```
''' 6.Write a Python program to create a stacked bar plot .
Note: Use bottom to stack the women bars on top of the men bars.
Sample Data:
men = [122, 230,1 35,335, 126]
women = [225,132, 30, 235,229]
'''
men = [122, 230,135,335, 126]
women = [225,132, 30, 235,229]
plt.bar(range(len(men)),men,label='men',width=0.3,color='red')
plt.bar(range(len(women)),women,bottom=men,label='women',width=0.3,color='green')
plt.show()
```

In [19]:
```
'''7.Write a Python programming to create a pie chart of the popularity of programming Languages.
Sample data:
Programming languages: Java, Python, PHP, JavaScript, C#, C++
Popularity: 22.2, 17.6, 8.8, 8, 7.7, 6.7
'''
pl = 'Java', 'Python', 'PHP', 'JavaScript', 'C#', 'C++'
popularity = [22.2, 17.6, 8.8, 8, 7.7, 6.7]
colors = ['green', 'blue', 'purple', 'red', 'yellow', 'magenta']
explode = (0.1, 0, 0, 0,0,0)
plt.pie(popularity, explode=explode, labels=pl, colors=colors,
autopct='%1.1f%%', shadow=True, startangle=140)
plt.axis('equal')
plt.show()
```



In [27]:
```
'''8.Write a Python program to draw a scatter plot different weights and
heights.'''
height=[7.2,6.2,5.1,5.3,4.2]
weights=[5,6,8,7,4]
plt.scatter(height,weights)
plt.xlabel('Heights')
plt.ylabel('Weights')
plt.show()
```


In [ ]: