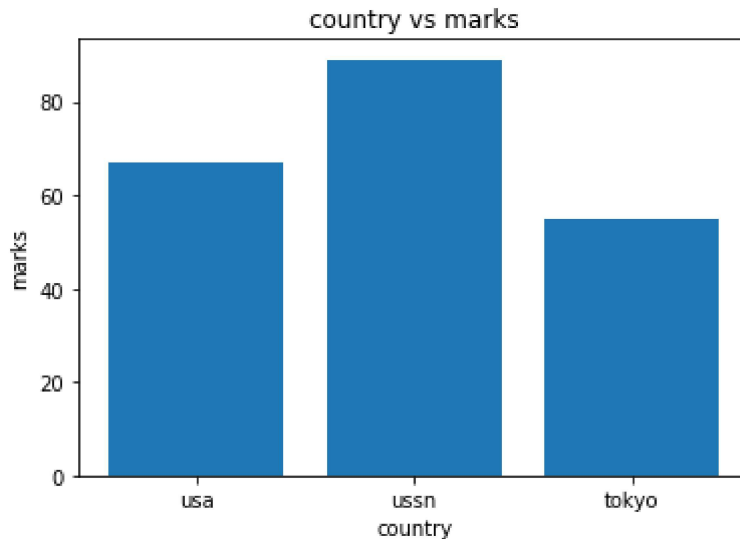
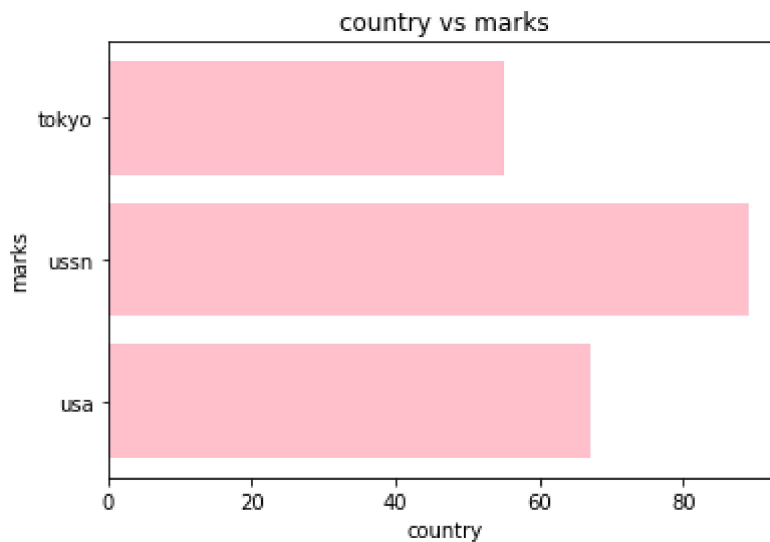


```
In [2]: import matplotlib.pyplot as plt
country=['usa','ussn','tokyo']
marks=[67,89,55]
plt.bar(country,marks)
plt.xlabel('country')
plt.ylabel('marks')
plt.title('country vs marks')
plt.show()
```



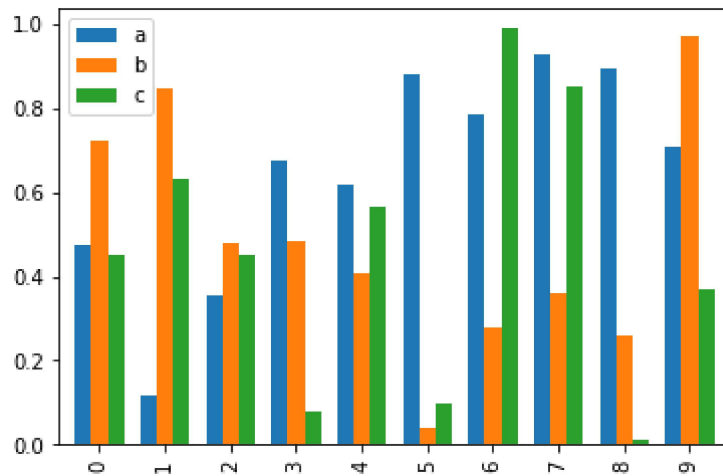
```
In [4]: import matplotlib.pyplot as plt
country=['usa','ussn','tokyo']
marks=[67,89,55]
plt.barh(country,marks,color='pink')
plt.xlabel('country')
plt.ylabel('marks')
plt.title('country vs marks')
plt.show()
```



```
In [ ]:
```

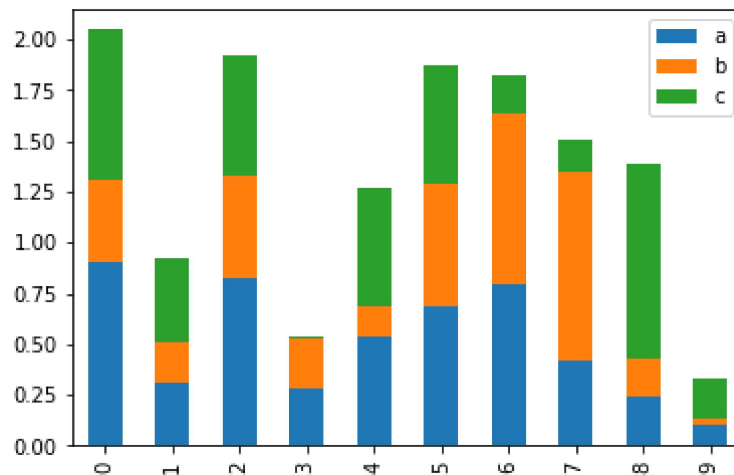
```
In [16]: import matplotlib.pyplot as plt
import pandas as pd
import numpy as np
df=pd.DataFrame(np.random.rand(10,3),columns=['a','b','c'])
df.plot.bar(width=0.75)
```

Out[16]: <matplotlib.axes._subplots.AxesSubplot at 0x1f8853b1b08>



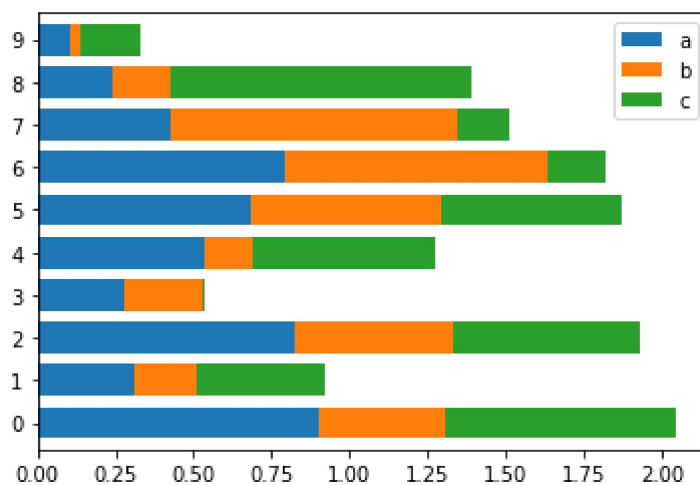
```
In [11]: df.plot.bar(stacked=True)
```

Out[11]: <matplotlib.axes._subplots.AxesSubplot at 0x1f882f1f348>

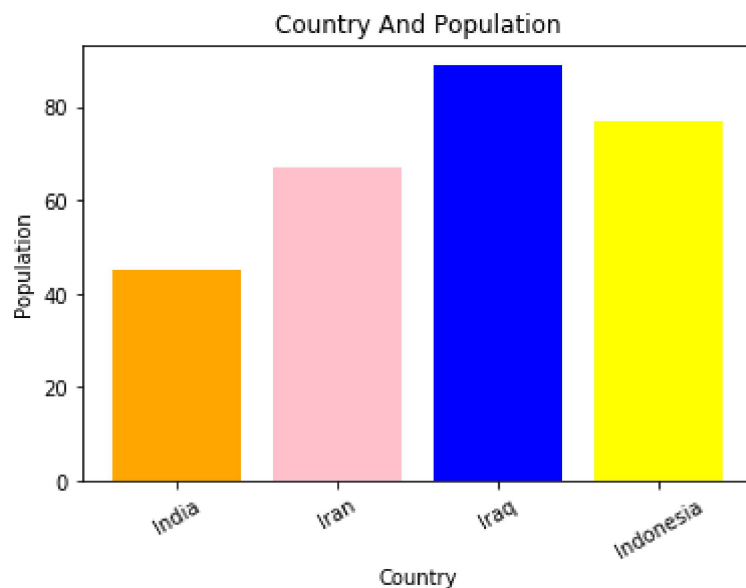


```
In [15]: df.plot.barh(stacked=True,width=0.75)
```

```
Out[15]: <matplotlib.axes._subplots.AxesSubplot at 0x1f884306748>
```



```
In [7]: import matplotlib.pyplot as plt
country = ["India", "Iran", "Iraq", "Indonesia"]
population = [45, 67, 89, 77]
plt.bar(country, population, color=["orange", "pink", "blue", "yellow"])
plt.xlabel("Country")
plt.xticks(rotation=30, horizontalalignment = "center")
plt.ylabel("Population")
plt.title("Country And Population")
plt.show()
```



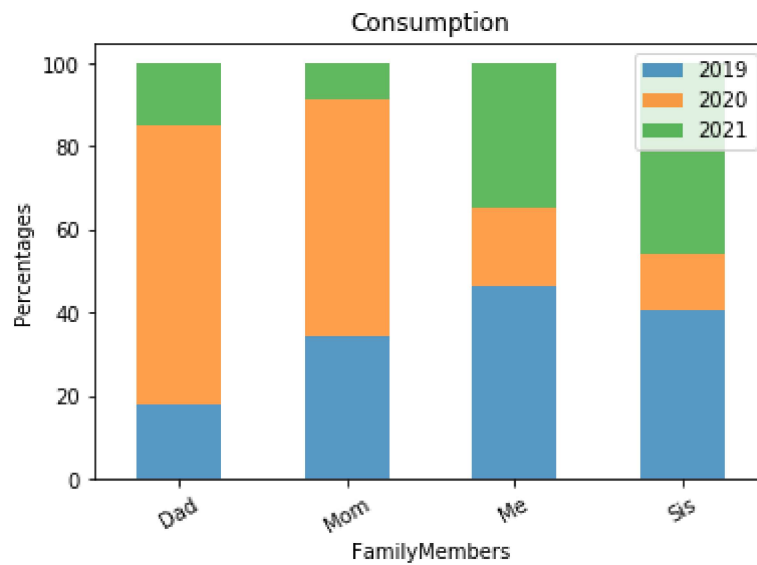
```
In [10]: import pandas as pd
import matplotlib.pyplot as plt
plotdata = pd.DataFrame({
    "2019": [12, 40, 56, 33],
    "2020": [45, 66, 23, 11],
    "2021": [10, 10, 42, 37],
}, index= ['Dad', 'Mom', 'Me', 'Sis'])
plotdata
```

Out[10]:

	2019	2020	2021
Dad	12	45	10
Mom	40	66	10
Me	56	23	42
Sis	33	11	37

```
In [14]: stacked_data = plotdata.apply(lambda x : x*100/sum(x),axis = 1)
stacked_data.plot(kind="bar",stacked=True,alpha=0.75)
plt.title("Consumption")
plt.xlabel("FamilyMembers")
plt.ylabel("Percentages")
plt.xticks(rotation=30,horizontalalignment="center")
```

Out[14]: (array([0, 1, 2, 3]), <a list of 4 Text xticklabel objects>)



In []: