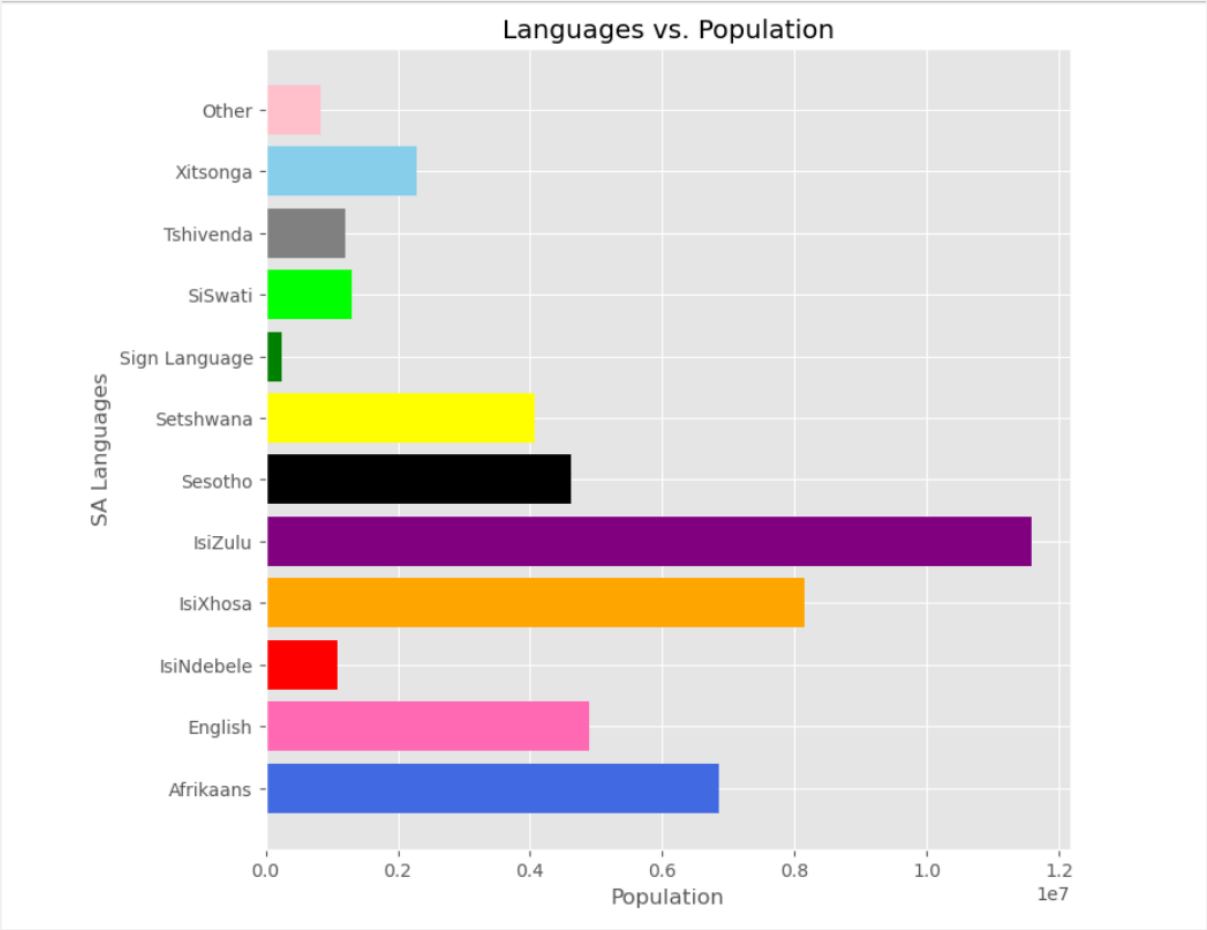
1. Horizontal Bar Graph:

```
#Import libraries :
import numpy as np
import matplotlib.pyplot as plot
import pandas as pd
from matplotlib import style
```

```
#Define Data using a dictionary
sa_languages = {'Afrikaans':6855082 ,'English':4892623 ,'IsiNdebele':1090223 ,'IsiXhosa':8154258 ,'IsiZulu':11587374 ,'Sesotho':4618576 ,'Setshwana':4067

#Convert Dictionary to a list:
languages = list(sa_languages.keys())
population = list(sa_languages.values())

#Plot a Bar Graph:
style.use('ggplot')
plot.figure(figsize = (8,8))
_colors = ['royalblue' , 'hotpink' , 'red' , 'orange' , 'purple' ,'black' , 'yellow' , 'green' , 'lime' , 'gray' , 'skyblue' , 'pink']
plot.barh(languages , population , color=_colors )
plot.title("Languages vs. Population")
plot.xlabel("Population")
plot.ylabel("SA Languages")
```

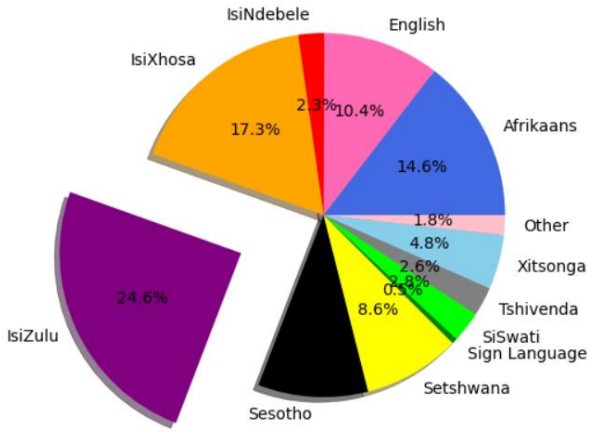
OUTPUT:



2. Pie Chart:

```
[52]: _explode = (0,0,0,0,0.5,0,0,0,0,0,0,0)
plot.pie(population , labels = languages , explode = _explode, colors = _colors , autopct = '%1.1f%%' ,shadow = True , startangle = 0)
plot.axis('equal')
plot.show
```

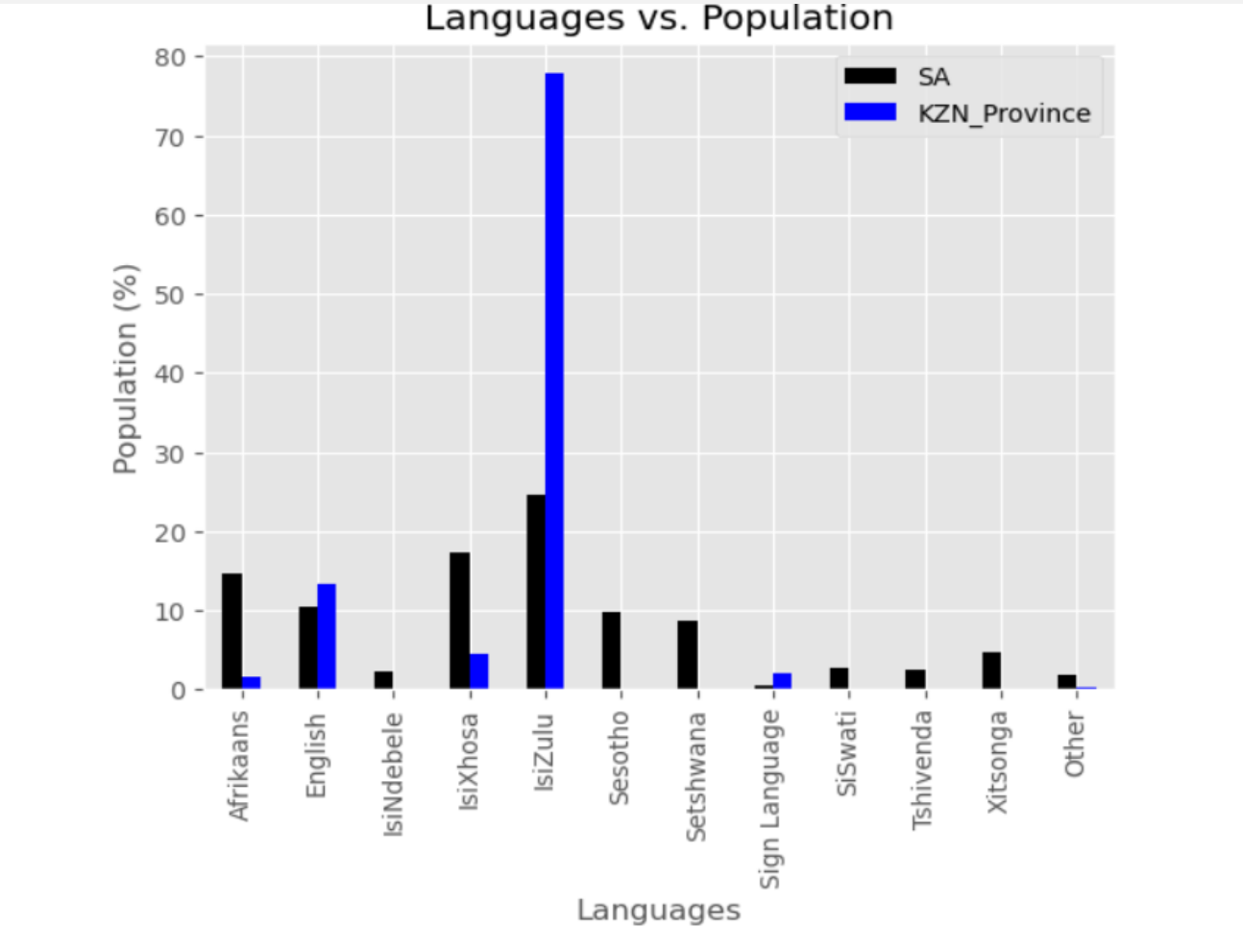
```
[52]: <function matplotlib.pyplot.show(close=None, block=None)>
```



3. Comparing South Africa data(%) and KZN Province only:

```
[56]: #We have seen SA, Now Let's see KZN Province alone :
#Define Data (Percentage):

_data = {'SA':[14.6 , 10.4 , 2.3 , 17.3 , 24.6 , 9.8 , 8.6 , 0.5 , 2.8 , 2.5 , 4.8 , 1.8]
        , 'KZN_Province':[1.6 , 13.3 , 0.13 , 4.4 , 77.8 , 0.1 , 0.1 , 2 , 0.13 , 0 , 0 , 0.3 ]}

_df = pd.DataFrame(_data,columns = ['SA' , 'KZN_Province'] , index = ["Afrikaans","English","IsiNdebele","IsiXhosa","IsiZulu","Sesotho","Setshwana","Sig

#Write a Code for multiple horizontal bar charts
color = ['black','blue']
_df.plot.bar(color=color)

plot.title("Languages vs. Population")
plot.xlabel("Population (%)")
plot.ylabel("Languages")
#plot.show()
```

OUTPUT:


Languages vs. Population
SA
KZN_Province
Population (%)
0
10
20
30
40
50
60
70
80
Afrikaans
English
IsiNdebele
IsiXhosa
IsiZulu
Sesotho
Setshwana
Sign Language
SiSwati
Tshivenda
Xitsonga
Other
Languages