bar plot KNBS data

January 17, 2023

[3]:
```
print("Hello Sir/Madam.","   "
      "Hope you are doing well.")
```

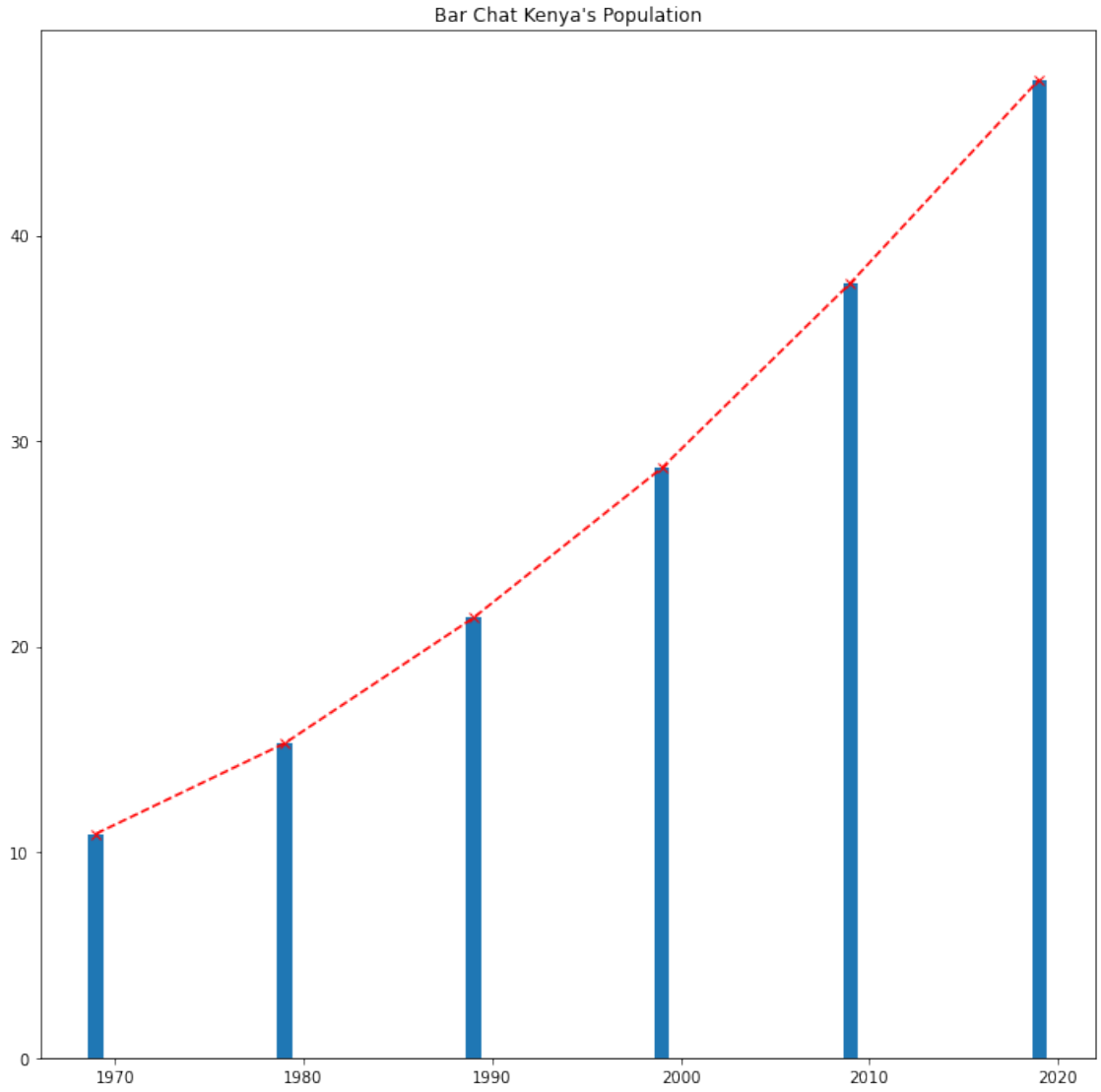
```
Hello Sir/Madam.    Hope you are doing well.
```

[4]:
```
import seaborn as sns
import matplotlib.pyplot as plt
%matplotlib inline
```

[14]:
```
year=[1969,1979,1989,1999,2009,2019]
population=[10.9,15.3,21.4,28.7,37.7,47.6]
plt.figure(figsize=[12,12])

plt.figure(figsize=[12,12])
plt.title("Bar Chat Kenya's Population")
plt.bar(year,population)
plt.plot(year,population, "x--r");
```

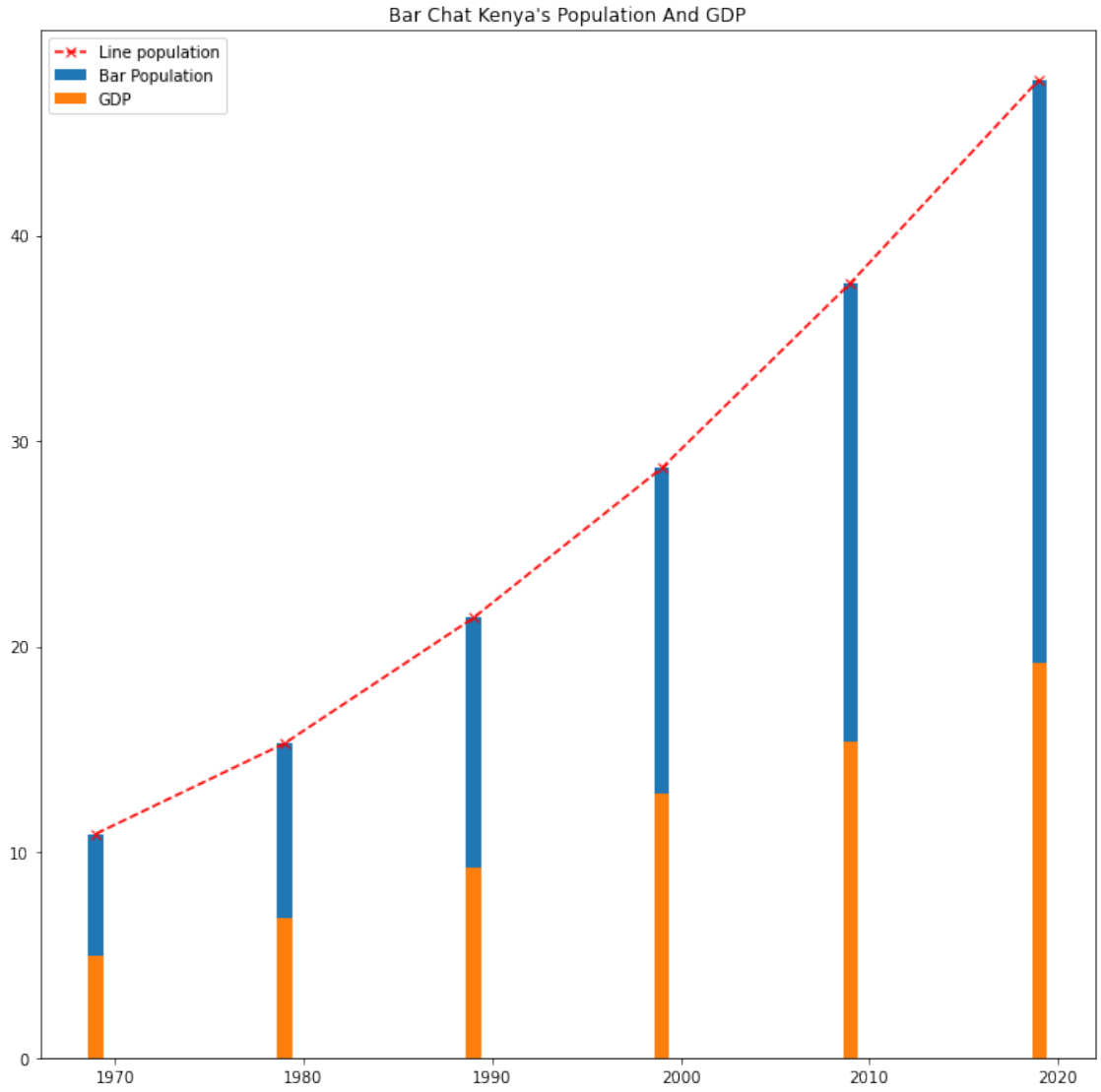
```
<Figure size 864x864 with 0 Axes>
```



[26]:
```
year=[1969,1979,1989,1999,2009,2019]
population=[10.9,15.3,21.4,28.7,37.7,47.6]
GDP_Kenya=[4.95,6.82,9.26,12.89,15.38,19.22]
plt.figure(figsize=[12,12])

plt.figure(figsize=[12,12])
plt.title("Bar Chat Kenya's Population And GDP")
plt.bar(year,population)
plt.plot(year,population, "x--r")
plt.bar(year,GDP_Kenya,)
plt.legend(["Line population","Bar Population","GDP"]);
```

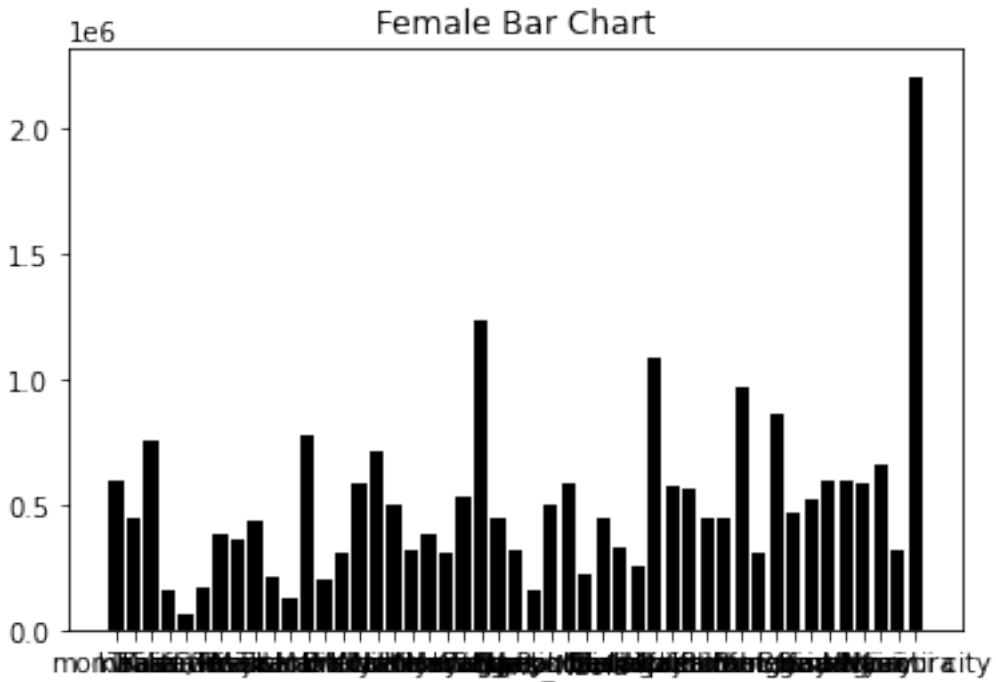
```
<Figure size 864x864 with 0 Axes>
```



[52]:
```
total=[1208333,866820,1453787,315943,143920,340671,841353,781263,867457,459785,268002,1545714,
print(female)
female=[598046, 441681, 749673, 157391, 67813, 167327, 382344, 365840, 432444,␣
 ↪216219, 128483, 777975, 199406, 304367, 587151, 711191, 497942, 323247,␣
 ↪384845, 308369, 532669, 1230454, 448868, 314213, 153546, 501206, 582889,␣
 ↪227151, 444430, 330428, 259102, 1084835, 578805, 560704, 451008, 441379,␣
 ↪970406, 306323, 858389, 467401, 521496, 594609, 592367, 580214, 661038,␣
 ↪314656, 2204376]
intersex=[30, 18, 25, 2, 4, 7, 34, 49, 37, 18, 9, 41, 7, 24, 33, 34, 20, 20,␣
 ↪31, 31, 31, 135, 21, 15, 7, 28, 28, 12, 22, 13, 18, 95, 26, 38, 28, 23, 40,␣
 ↪12, 35, 28, 18, 23, 23, 35, 38, 13, 245]
```

```
male=[610257, 425121, 704089, 158550, 76103, 173337, 458975, 415374, 434976,␣
 ↪243548, 139510, 767698, 193764, 304208, 549003, 710707, 489691, 315022,␣
 ↪374228, 302011, 523940, 1187146, 478087, 307013, 156774, 489107, 580269,␣
 ↪227317, 441259, 336322, 259440, 1077272, 579042, 557098, 450741, 434287,␣
 ↪987133, 283678, 812146, 426252, 471669, 560942, 539560, 536187, 605784,␣
 ↪290907, 2192452]
county=['mombasa', 'kwale', 'Kilifi', 'Tanariver', 'Lamu', 'Taita/Taveta',␣
 ↪'Garissa', 'Wajir', 'Mandera', 'Marsarbit', 'Isiolo', 'Meru', 'Tharaka␣
 ↪Nithi', 'Embu', 'Kitui', 'Machakos', 'Makueni', 'Nyandarua', 'Nyeri',␣
 ↪'Kirinyaga', 'Muranga', 'Kiambu', 'Turkana', 'West Pokot', 'Samburu',␣
 ↪'Trans_Nzoia', 'Uasin Gishu', 'Elgeyo Marakwet', 'Nandi', 'Baringo',␣
 ↪'Laikipia', 'Nakuru', 'Narok', 'Kajiado', 'Kericho', 'Bomet', 'Kakamega',␣
 ↪'Vihiga', 'Bungoma', 'Busia', 'Siaya', 'Kisumu', 'Homa bay', 'Migori',␣
 ↪'Kisii', 'Nyamira', 'Nairobi city']
plt.bar(county,female,color="black")
plt.title("Female Bar Chart");
```

```
[598046, 441681, 749673, 157391, 67813, 167327, 382344, 365840, 432444, 216219,
128483, 777975, 199406, 304367, 587151, 711191, 497942, 323247, 384845, 308369,
532669, 1230454, 448868, 314213, 153546, 501206, 582889, 227151, 444430, 330428,
259102, 1084835, 578805, 560704, 451008, 441379, 970406, 306323, 858389, 467401,
521496, 594609, 592367, 580214, 661038, 314656, 2204376]
```



[ ]:

[35]:
```
intersex=[30, 18, 25, 2, 4, 7, 34, 49, 37, 18, 9, 41, 7, 24, 33, 34, 20, 20,␣
 ↪31, 31, 31, 135, 21, 15, 7, 28, 28, 12, 22, 13, 18, 95, 26, 38, 28, 23, 40,␣
 ↪12, 35, 28, 18, 23, 23, 35, 38, 13, 245]
print(intersex)
```

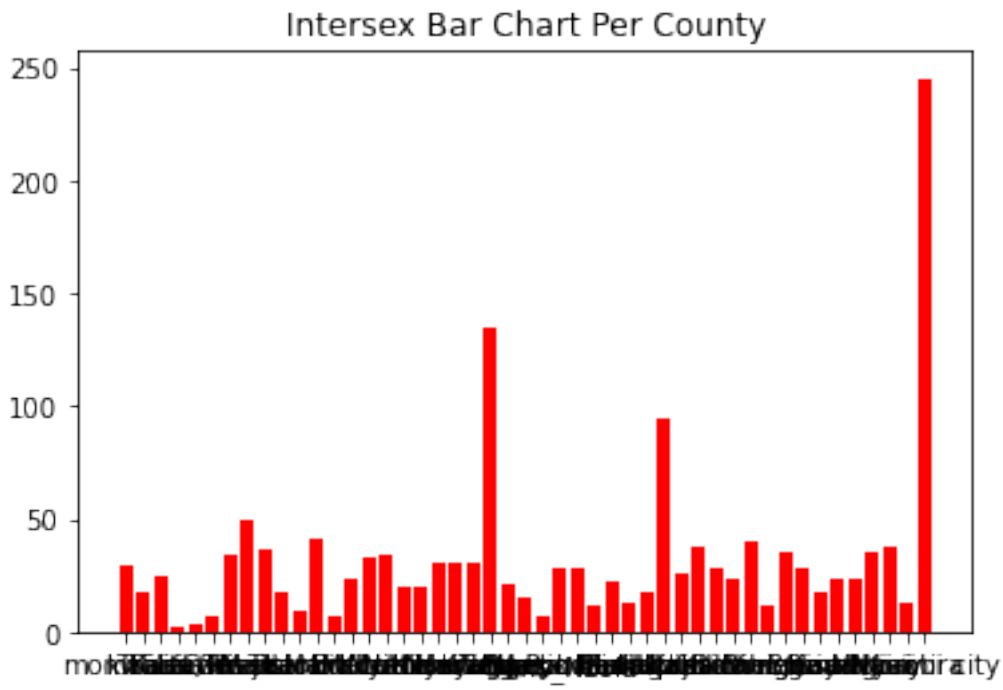
```
[30, 18, 25, 2, 4, 7, 34, 49, 37, 18, 9, 41, 7, 24, 33, 34, 20, 20, 31, 31, 31,
135, 21, 15, 7, 28, 28, 12, 22, 13, 18, 95, 26, 38, 28, 23, 40, 12, 35, 28, 18,
23, 23, 35, 38, 13, 245]
```

[33]:
```
county=['mombasa', 'kwale', 'Kilifi', 'Tanariver', 'Lamu', 'Taita/Taveta',␣
 ↪'Garissa', 'Wajir', 'Mandera', 'Marsarbit', 'Isiolo', 'Meru', 'Tharaka␣
 ↪Nithi', 'Embu', 'Kitui', 'Machakos', 'Makueni', 'Nyandarua', 'Nyeri',␣
 ↪'Kirinyaga', 'Muranga', 'Kiambu', 'Turkana', 'West Pokot', 'Samburu',␣
 ↪'Trans_Nzoia', 'Uasin Gishu', 'Elgeyo Marakwet', 'Nandi', 'Baringo',␣
 ↪'Laikipia', 'Nakuru', 'Narok', 'Kajiado', 'Kericho', 'Bomet', 'Kakamega',␣
 ↪'Vihiga', 'Bungoma', 'Busia', 'Siaya', 'Kisumu', 'Homa bay', 'Migori',␣
 ↪'Kisii', 'Nyamira', 'Nairobi city']
print(county)
```

```
['mombasa', 'kwale', 'Kilifi', 'Tanariver', 'Lamu', 'Taita/Taveta', 'Garissa',
'Wajir', 'Mandera', 'Marsarbit', 'Isiolo', 'Meru', 'Tharaka Nithi', 'Embu',
'Kitui', 'Machakos', 'Makueni', 'Nyandarua', 'Nyeri', 'Kirinyaga', 'Muranga',
'Kiambu', 'Turkana', 'West Pokot', 'Samburu', 'Trans_Nzoia', 'Uasin Gishu',
'Elgeyo Marakwet', 'Nandi', 'Baringo', 'Laikipia', 'Nakuru', 'Narok', 'Kajiado',
'Kericho', 'Bomet', 'Kakamega', 'Vihiga', 'Bungoma', 'Busia', 'Siaya', 'Kisumu',
'Homa bay', 'Migori', 'Kisii', 'Nyamira', 'Nairobi city']
```

[43]:
```
plt.bar(county,intersex,color="red")
plt.title("Intersex Bar Chart Per County")
```

[43]:
```
Text(0.5, 1.0, 'Intersex Bar Chart Per County')
```



[39]:
```
male=[610257, 425121, 704089, 158550, 76103, 173337, 458975, 415374, 434976,␣
↪243548, 139510, 767698, 193764, 304208, 549003, 710707, 489691, 315022,␣
↪374228, 302011, 523940, 1187146, 478087, 307013, 156774, 489107, 580269,␣
↪227317, 441259, 336322, 259440, 1077272, 579042, 557098, 450741, 434287,␣
↪987133, 283678, 812146, 426252, 471669, 560942, 539560, 536187, 605784,␣
↪290907, 2192452]
print(male)
```

```
[610257, 425121, 704089, 158550, 76103, 173337, 458975, 415374, 434976, 243548,
139510, 767698, 193764, 304208, 549003, 710707, 489691, 315022, 374228, 302011,
523940, 1187146, 478087, 307013, 156774, 489107, 580269, 227317, 441259, 336322,
259440, 1077272, 579042, 557098, 450741, 434287, 987133, 283678, 812146, 426252,
471669, 560942, 539560, 536187, 605784, 290907, 2192452]
```

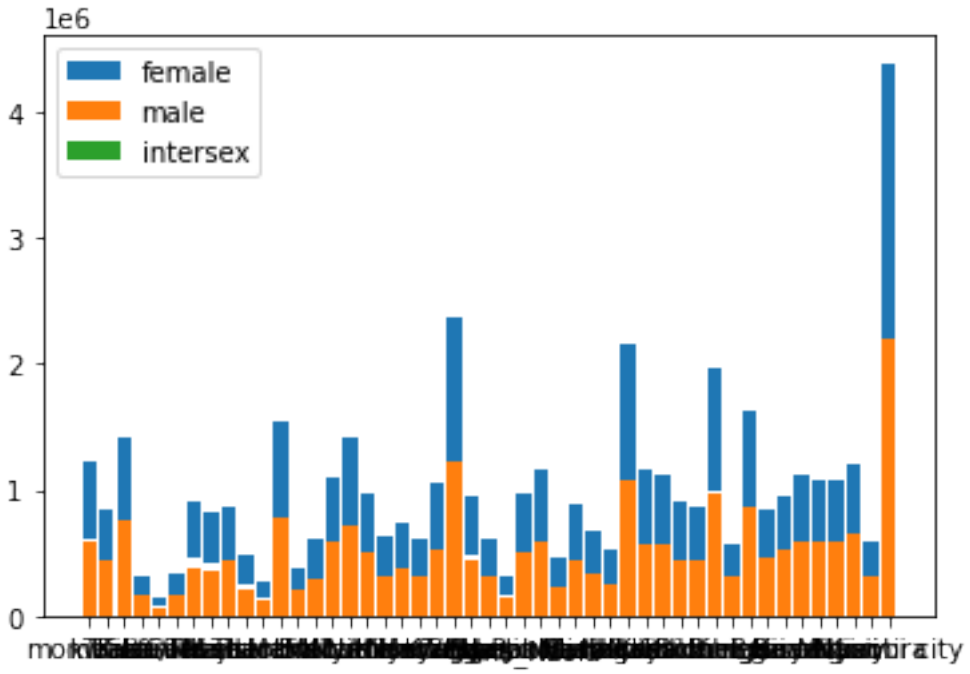
[41]:
```
female=[598046, 441681, 749673, 157391, 67813, 167327, 382344, 365840, 432444,␣
↪216219, 128483, 777975, 199406, 304367, 587151, 711191, 497942, 323247,␣
↪384845, 308369, 532669, 1230454, 448868, 314213, 153546, 501206, 582889,␣
↪227151, 444430, 330428, 259102, 1084835, 578805, 560704, 451008, 441379,␣
↪970406, 306323, 858389, 467401, 521496, 594609, 592367, 580214, 661038,␣
↪314656, 2204376]
print(female)
```

```
[598046, 441681, 749673, 157391, 67813, 167327, 382344, 365840, 432444, 216219,
128483, 777975, 199406, 304367, 587151, 711191, 497942, 323247, 384845, 308369,
532669, 1230454, 448868, 314213, 153546, 501206, 582889, 227151, 444430, 330428,
```

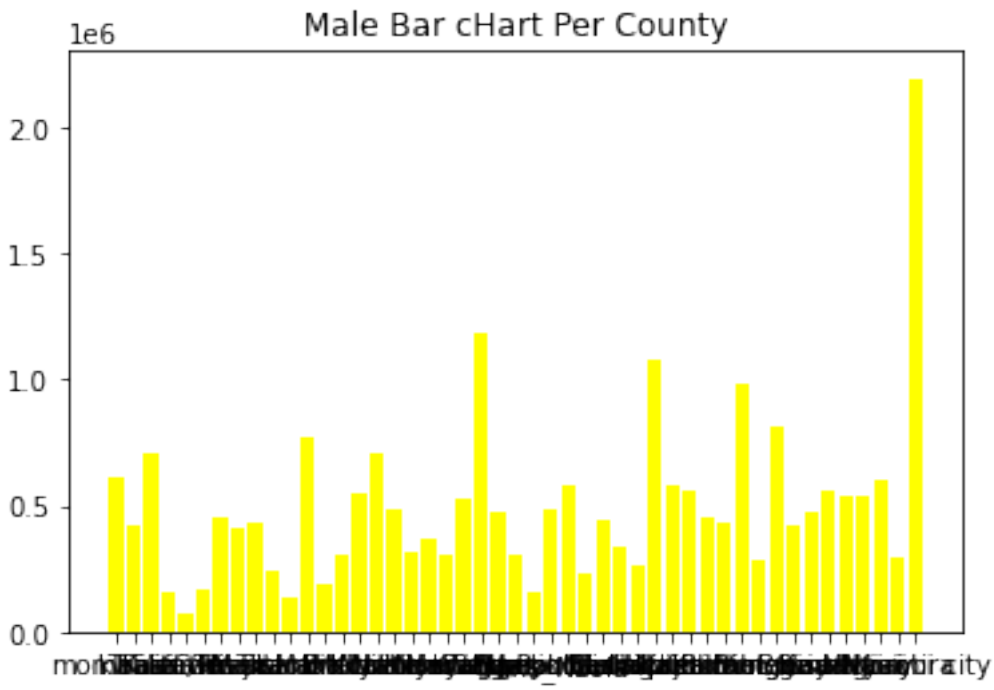
```
259102, 1084835, 578805, 560704, 451008, 441379, 970406, 306323, 858389, 467401,
521496, 594609, 592367, 580214, 661038, 314656, 2204376]
```

[50]:
```
plt.bar(county,male,bottom=male)
plt.bar(county,female)
plt.bar(county,intersex)
plt.legend(["female","male","intersex"])
```

[50]:
```
<matplotlib.legend.Legend at 0x7f693f181e20>
```



[45]:
```
plt.bar(county,male, color="Yellow")
plt.title("Male Bar Chart Per County");
```



[55]:
```
re=sns.load_dataset("tips")
print(re)
```

```
     total_bill   tip     sex smoker   day    time  size
0          16.99  1.01  Female     No   Sun  Dinner     2
1          10.34  1.66    Male     No   Sun  Dinner     3
2          21.01  3.50    Male     No   Sun  Dinner     3
3          23.68  3.31    Male     No   Sun  Dinner     2
4          24.59  3.61  Female     No   Sun  Dinner     4
..           …    …       …      …    …       …    …
239        29.03  5.92    Male     No   Sat  Dinner     3
240        27.18  2.00  Female    Yes   Sat  Dinner     2
241        22.67  2.00    Male    Yes   Sat  Dinner     2
242        17.82  1.75    Male     No   Sat  Dinner     2
243        18.78  3.00  Female     No  Thur  Dinner     2

[244 rows x 7 columns]
```

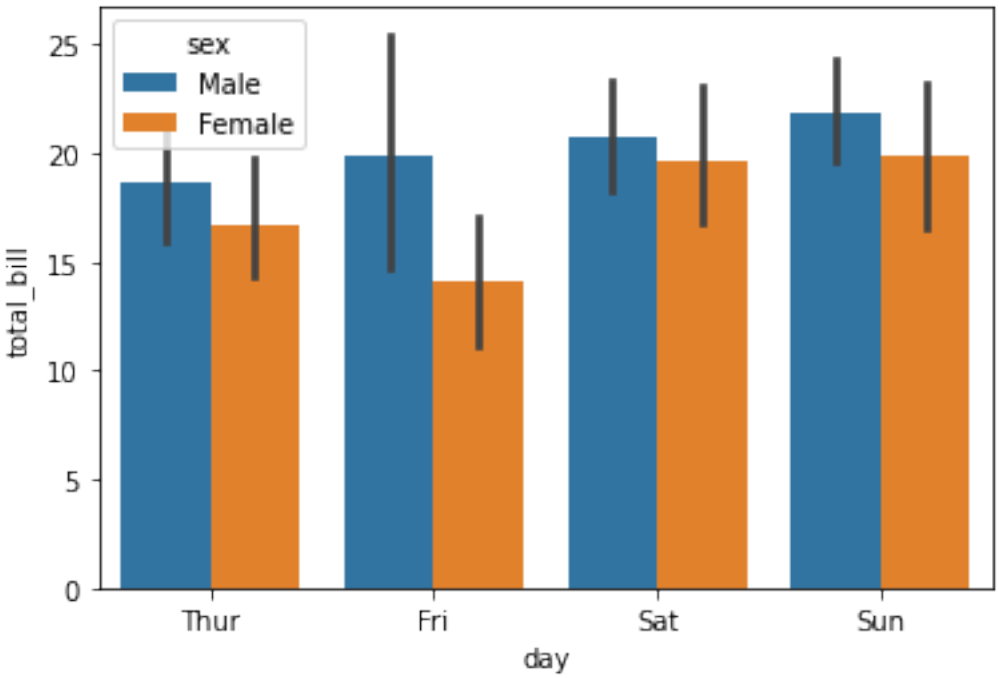
[ ]:
```
sns.barplot("day","total_bill",data=re);#group by and mean day i x and total␣
↪bill is y
```

[58]:
```
sns.barplot("day","total_bill",hue="sex",data=re) # hue is the criteria for␣
↪separation or plot
```

```
/opt/conda/lib/python3.9/site-packages/seaborn/_decorators.py:36: FutureWarning:
```

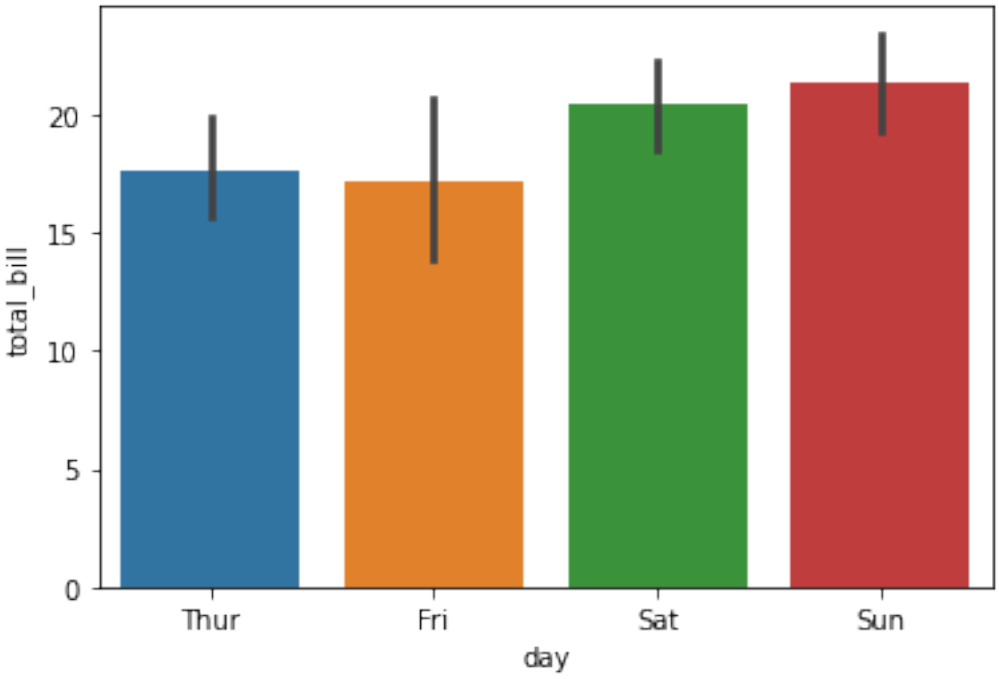
```
Pass the following variables as keyword args: x, y. From version 0.12, the only
valid positional argument will be `data`, and passing other arguments without an
explicit keyword will result in an error or misinterpretation.
  warnings.warn(
```

[58]:
```
<AxesSubplot:xlabel='day', ylabel='total_bill'>
```



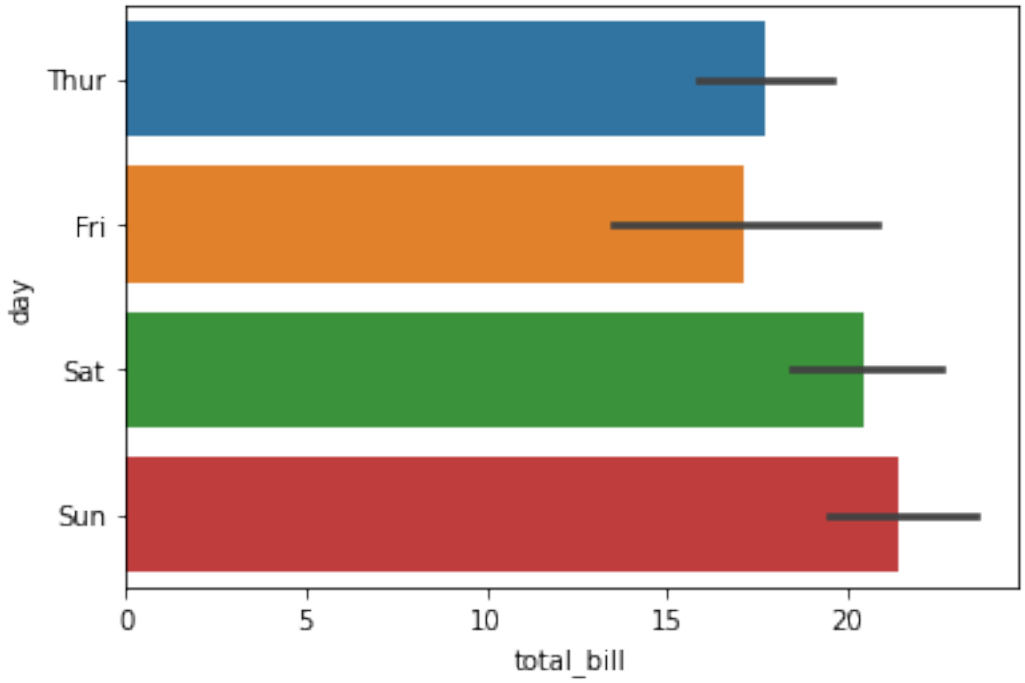
[59]:
```
sns.barplot("day","total_bill",data=re);#group by and mean day i x and total␣
↪bill is y
```

```
/opt/conda/lib/python3.9/site-packages/seaborn/_decorators.py:36: FutureWarning:
Pass the following variables as keyword args: x, y. From version 0.12, the only
valid positional argument will be `data`, and passing other arguments without an
explicit keyword will result in an error or misinterpretation.
  warnings.warn(
```



[63]:
```
sns.barplot("total_bill","day",data=re);#switching axis to horizontal
```

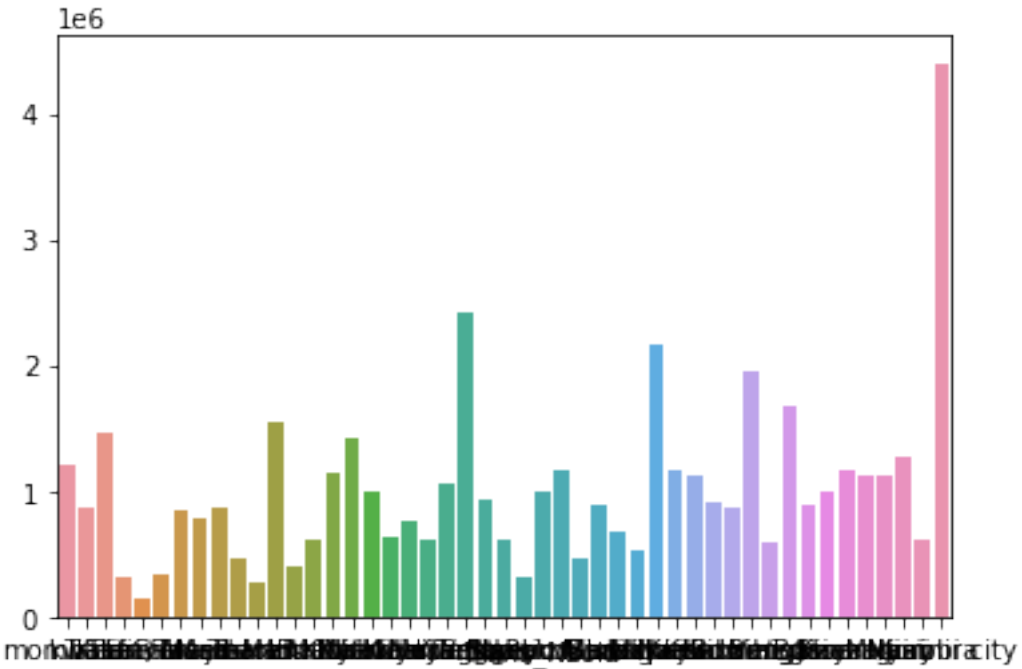
```
/opt/conda/lib/python3.9/site-packages/seaborn/_decorators.py:36: FutureWarning:
Pass the following variables as keyword args: x, y. From version 0.12, the only
valid positional argument will be `data`, and passing other arguments without an
explicit keyword will result in an error or misinterpretation.
  warnings.warn(
```



[64]:
```
sns.barplot(county,total)
```

```
/opt/conda/lib/python3.9/site-packages/seaborn/_decorators.py:36: FutureWarning:
Pass the following variables as keyword args: x, y. From version 0.12, the only
valid positional argument will be `data`, and passing other arguments without an
explicit keyword will result in an error or misinterpretation.
  warnings.warn(
```

[64]: <AxesSubplot:>


1e6
4
3
2
1
0

[ ]: