Lab-3_Part_2

Matplotlib Exercises

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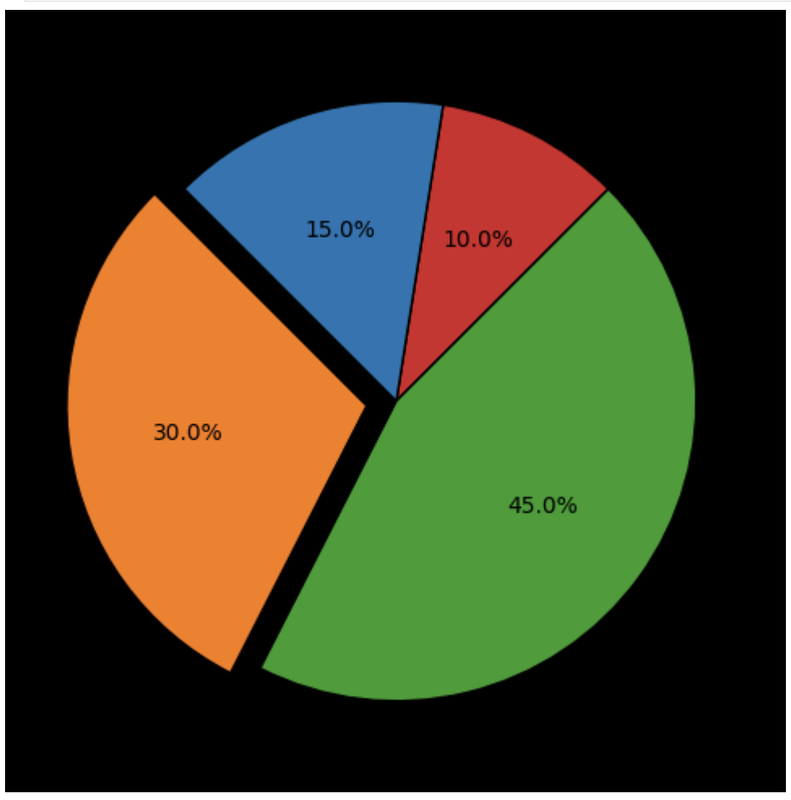
Import library

In [17]:
```
import pandas as pd
import matplotlib.pyplot as plt
import numpy as np
```

Question 6

In [26]:
```
##Write the code to plot the graph below

y = [10, 15, 30, 45]
explode = (0, 0, 0.1, 0)
colours = ['#c53a33','#3a77af', '#ef8536', '#529d3f' ]

plt.figure(figsize=(6, 6), facecolor='black')

plt.pie(
    y,
    colors=colours,
    autopct='%1.1f%%',
    startangle=45,
    explode=explode,
    wedgeprops={'edgecolor': 'black'}
)

plt.show()
```



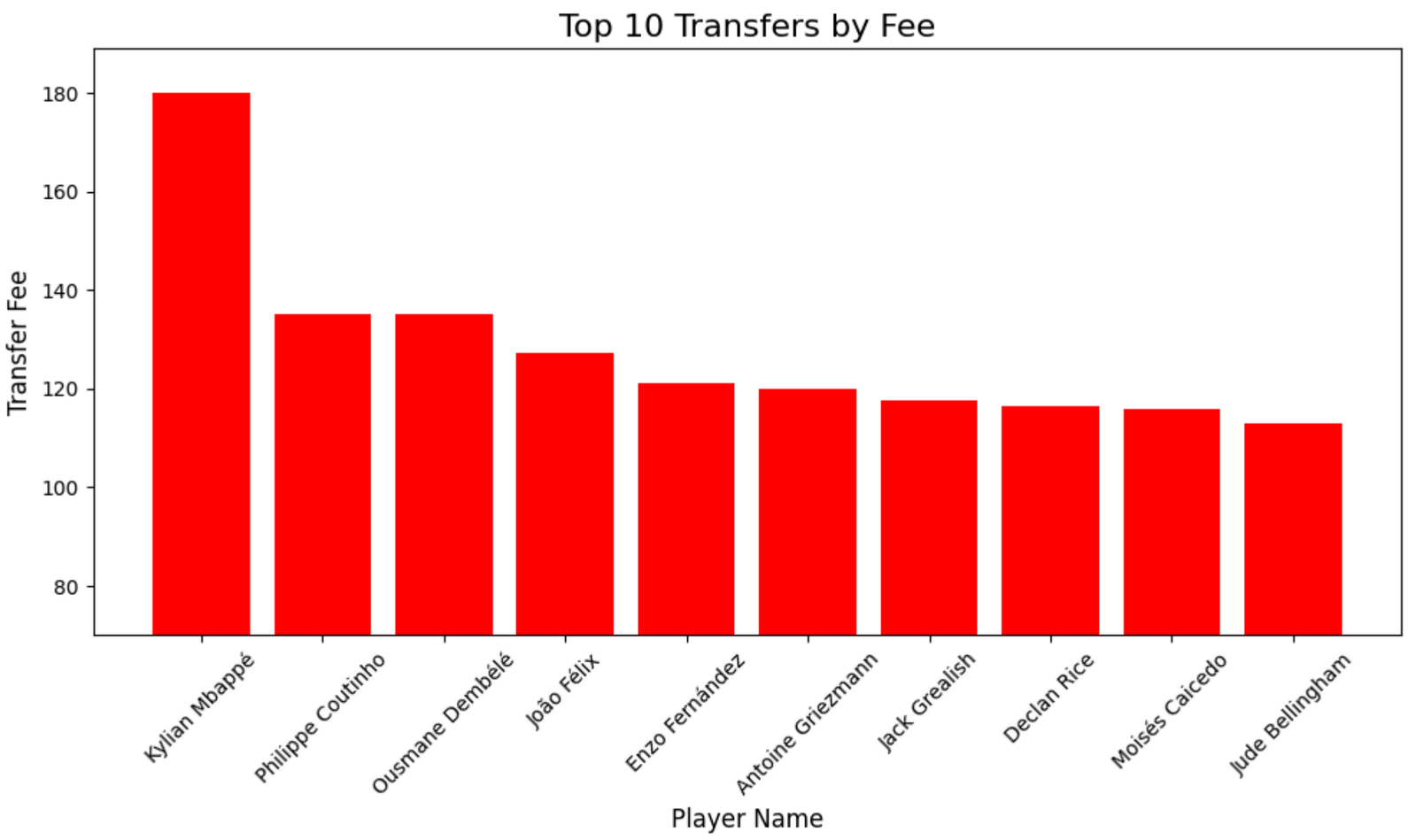
Question 7

Download any random data in CSV or Excel format from the internet and try to analyze the data as per the important attributes present in the file.

Plot the data on a graph.

Try to find out what important information can be obtained from visual representation data.

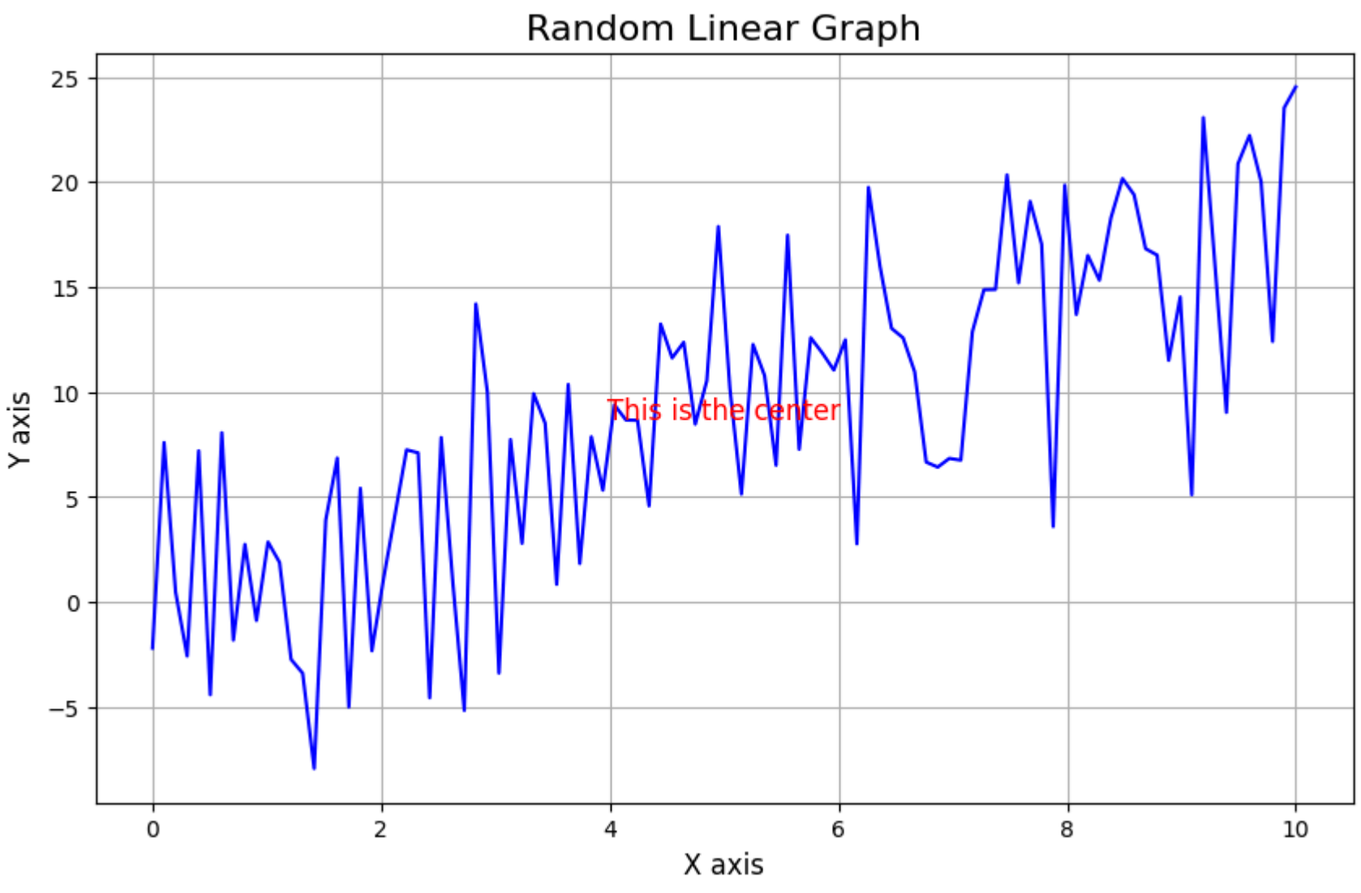
In [15]:
```
df = pd.read_csv("transfers.csv")

top_10_transfers = df.nlargest(10, 'transfer_fee')

plt.figure(figsize=(10, 6))

plt.bar(top_10_transfers['player_name'], top_10_transfers['transfer_fee'] / 1e6, color='r')

plt.title('Top 10 Transfers by Fee', fontsize=16)
plt.xlabel('Player Name', fontsize=12)
plt.ylabel('Transfer Fee', fontsize=12)

plt.xticks(rotation=45, fontsize=10)

plt.ylim(70, None)

plt.tight_layout()

plt.show()
```



Question 8

Add some text to a graph & create and plot a random linear graph Right at the center if the graph add some text which says this is the center. Also add grids to the graph.

In [24]:
```
x = np.linspace(0, 10, 100)
y = 2 * x + np.random.normal(0, 5, 100)

plt.figure(figsize=(10, 6))
plt.plot(x, y, label="Random Linear Graph",color='b')

plt.text(x.mean(), y.mean(), 'This is the center', fontsize=12, color='r',ha='center', va='center')
plt.grid(True)

plt.title('Random Linear Graph', fontsize=16)
plt.xlabel('X axis', fontsize=12)
plt.ylabel('Y axis', fontsize=12)

plt.show()
```



Please save as Pdf and upload in Blackboard Lab4.