# %%

import pandas as pd

from math import pi

import matplotlib.pyplot as plt

%matplotlib inline

#comparing player data points from my consolidated master dataset

Pogba = {'Pace':85,'Shooting':92,'Passing':79,'Dribbling':95,'Defending':34,'Transfer Value':100}

Modric = {'Pace':80,'Shooting':90,'Passing':80,'Dribbling':80,'Defending':40,'Transfer Value':100}

data = pd.DataFrame([Pogba,Modric], index = ["Pogba","Modric"])

data

Attributes =list(data)

AttNo = len(Attributes)

values = data.iloc[1].tolist()

values += values [:1]

values

angles = [n / float(AttNo) \* 2 \* pi for n in range(AttNo)]

angles += angles [:1]

ax = plt.subplot(111, polar=True)

#adding the attribute labels to our axes

plt.xticks(angles[:-1],Attributes)

#plotting the line around the outside of the filled area, using the angles and values calculated before

ax.plot(angles,values)

#filling in the area plotted in the last line

ax.fill(angles, values, 'teal', alpha=0.1)

#giving the plot a title and showing it

ax.set\_title("Pogba")

plt.show()

#finding the values and angles for Pogba - from the table at the top of the page

values2 = data.iloc[0].tolist()

values2 += values2 [:1]

angles2 = [n / float(AttNo) \* 2 \* pi for n in range(AttNo)]

angles2 += angles2 [:1]

#creating the chart as before, but with both Pogba's and Modric angles/values

ax = plt.subplot(111, polar=True)

plt.xticks(angles[:-1],Attributes)

ax.plot(angles,values)

ax.fill(angles, values, 'teal', alpha=0.1)

ax.plot(angles2,values2)

ax.fill(angles2, values2, 'red', alpha=0.1)

#individual text points are being added

plt.figtext(0.2,0.9,"Pogba",color="red")

plt.figtext(0.2,0.85,"v")

plt.figtext(0.2,0.8,"Modric",color="teal")

plt.show()