EDS PRACTICAL NO 5

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- *PRN.*

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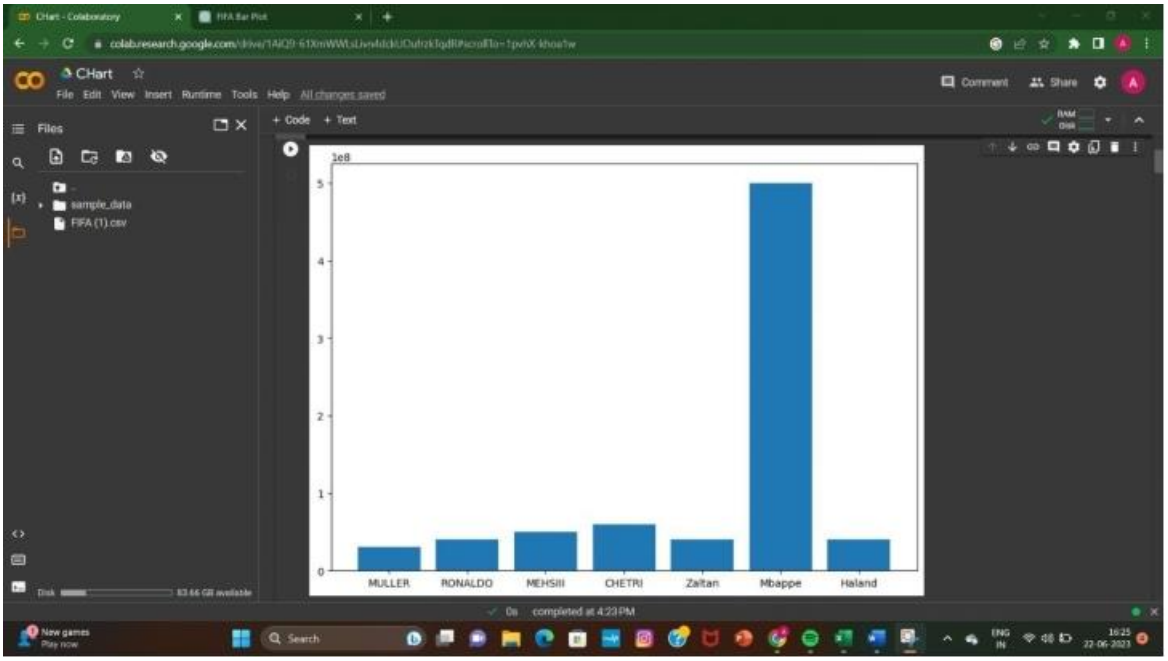
- *Roll No. : 331*

```
importpandasaspd
frommatplotlibimportpyplotasplt

#ReadCSVintopandas
data = pd.read_csv("/content/FIFA
(1).csv")data.head()
df=pd.DataFrame(data)

name =
df['PN'].head(12)price=d
f['SAL'].head(12)

#FigureSize
fig=plt.figure(figsize=(10,7))

# Horizontal Bar
Plotplt.bar(name[0:10],price[0
:10])
```

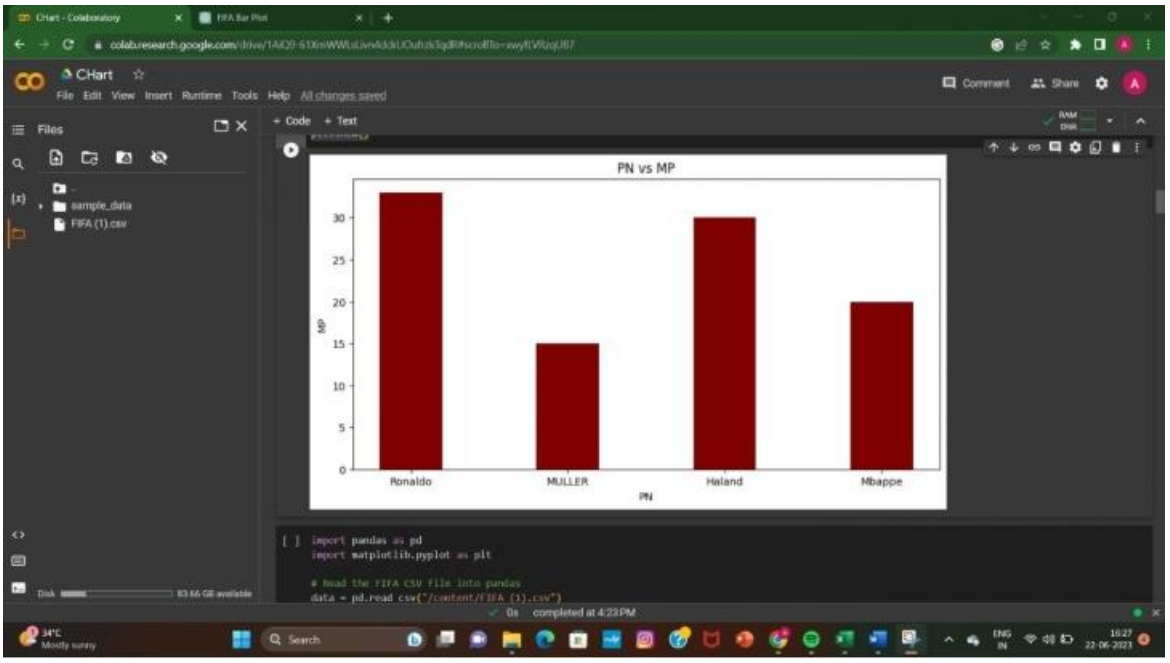
OUTPUT-



2.

```
importnumpyasnp
importmatplotlib.pyplotasplt


#creatingthedataset
data
        ={'Ronaldo':33,'MULLER':15,'Haland':3
        0,'Mbappe':20}
courses
=list(data.keys())values=l
ist(data.values())

fig=plt.figure(figsize=(10,5))

#creatingthebarplot
plt.bar(courses,values,color
        ='maroon',width=0.4)

plt.xlabel("PN")
```

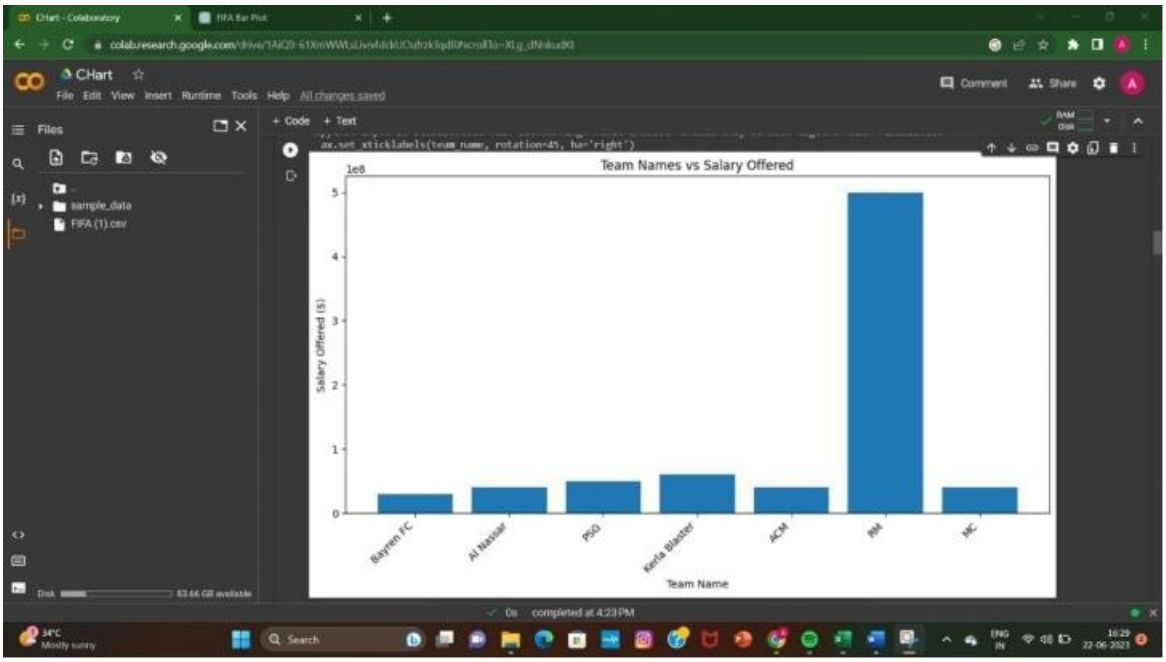
OUTPUT-



3.

```
importpandasaspd
importmatplotlib.pyplotasplt

#ReadtheFIFACSVfileintopandas
data = pd.read_csv("/content/FIFA
(1).csv")df=pd.DataFrame(data)

#Extractthedesiredcolumnste
am_name=df['TN'].head(12)sa
lary=df['SAL'].head(12)

#Figuresize
fig,ax=plt.subplots(figsize=(10,6))

# Bar
plotax.bar(team_name,sa
lary)

# Customize the
plotax.set_xlabel('Team
Name')ax.set_ylabel('SalaryOffere
d($)')
ax.set_title('Team Names vs Salary
Offered')ax.set_xticklabels(team_name,rotation=45,h
a='right')plt.tight_layout()
```

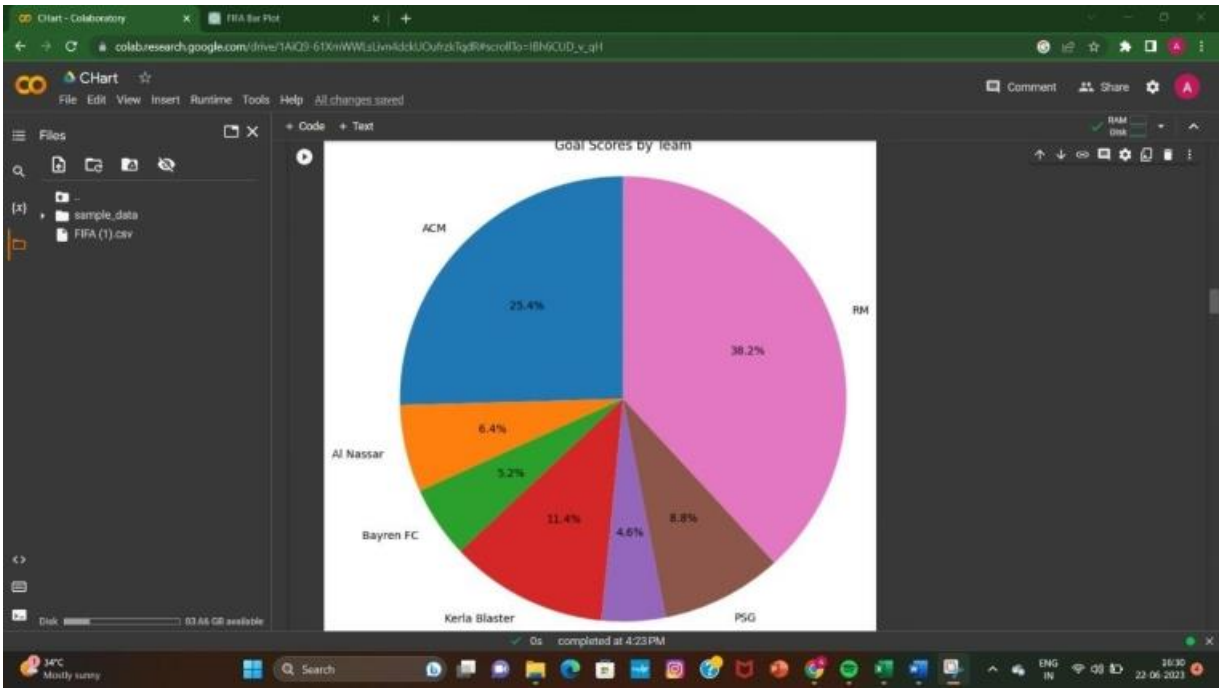
OUTPUT-


Team Names vs Salary Offered
1e8
Salary Offered ($)
Team Name
Bayren FC
Al Nassar
PSG
Kerla Blaster
ACM
RM
MC

4.

```
importpandasaspd
importmatplotlib.pyplotasplt

#ReadCSVintopandas
data = pd.read_csv("/content/FIFA
(1).csv")df=pd.DataFrame(data)

#Groupthedatabyteam
andcalculatethetotalgoalsscoredteam_goals=df.groupby('TN')
['GS'].sum()

# Get the team names and goal
scoresteam_names =
team_goals.index.tolist()goal_scores=t
eam_goals.values.tolist()

#Createthepiechart
fig,ax=plt.subplots(figsize=(8,8))ax.pie(goal_scores,l
abels=team_names,autopct='%1.1f%%',startangle=90)

#Addatitle
ax.set_title('GoalScoresbyTeam')

#Equalaspectratioensures that pieisdrawn asa
circleax.axis('equal')
```

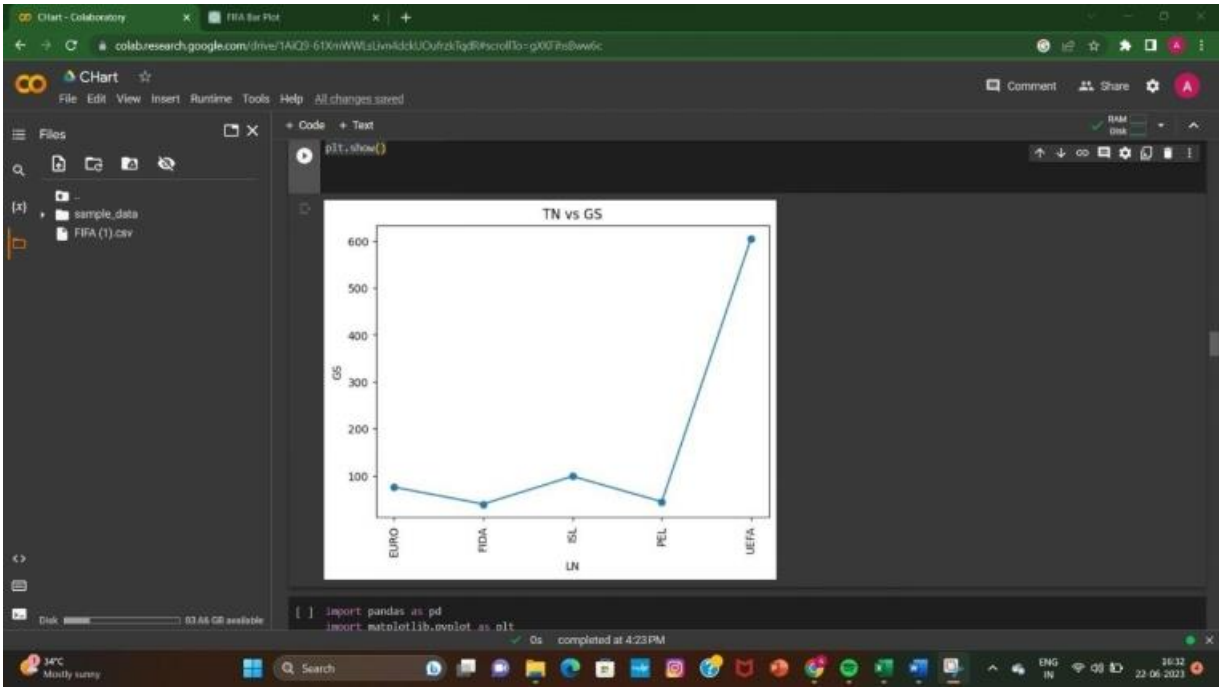
OUTPUT-



5.

```
importpandasaspd
importmatplotlib.pyplotasplt

#ReadCSVintopandas
data = pd.read_csv("/content/FIFA
(1).csv")df=pd.DataFrame(data)

#GroupthedatabyLeaguenameandcalculatethetotalgoalscoresleague_g
oals =df.groupby('LN')['GS'].sum()

#Createalinechart
plt.plot(league_goals.index,league_goals.values,marker='o')

#Setthecharttitleandaxislabelsplt.t
itle('TN vs GS')plt.xlabel('LN')
plt.ylabel('GS')

# Rotate the x-axis labels for better
visibilityplt.xticks(rotation=90)

#Displaythechartpl
t.show()
```

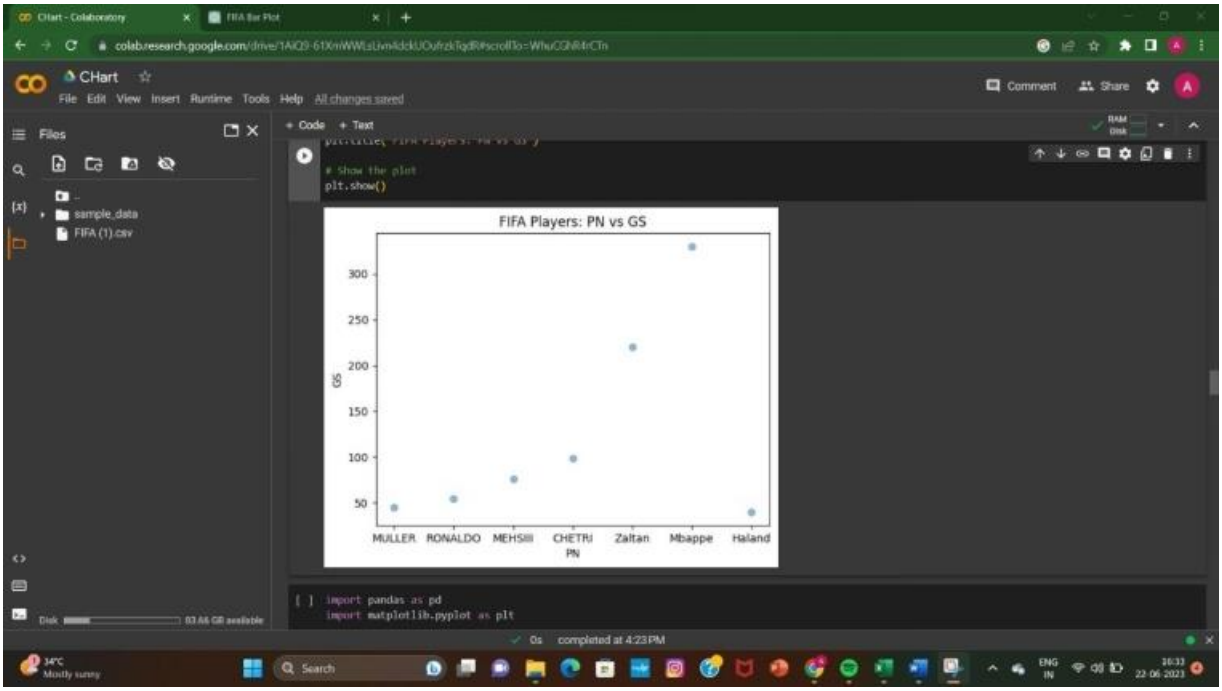
OUTPUT-



6.

```
importpandasaspd
importmatplotlib.pyplotasplt

#ReadCSVintopandas
data = pd.read_csv("/content/FIFA
(1).csv")df=pd.DataFrame(data)

#Extractthedesiredcolumnsag
e=df['PN']
overall=df['GS']

# Create scatter
plotplt.scatter(age,overall,alpha=
0.5)

#Setaxislabelspl
t.xlabel('PN')
plt.ylabel('GS')

#Setplottitle
plt.title('FIFAPlayers: PNvsGS')
```

OUTPUT-

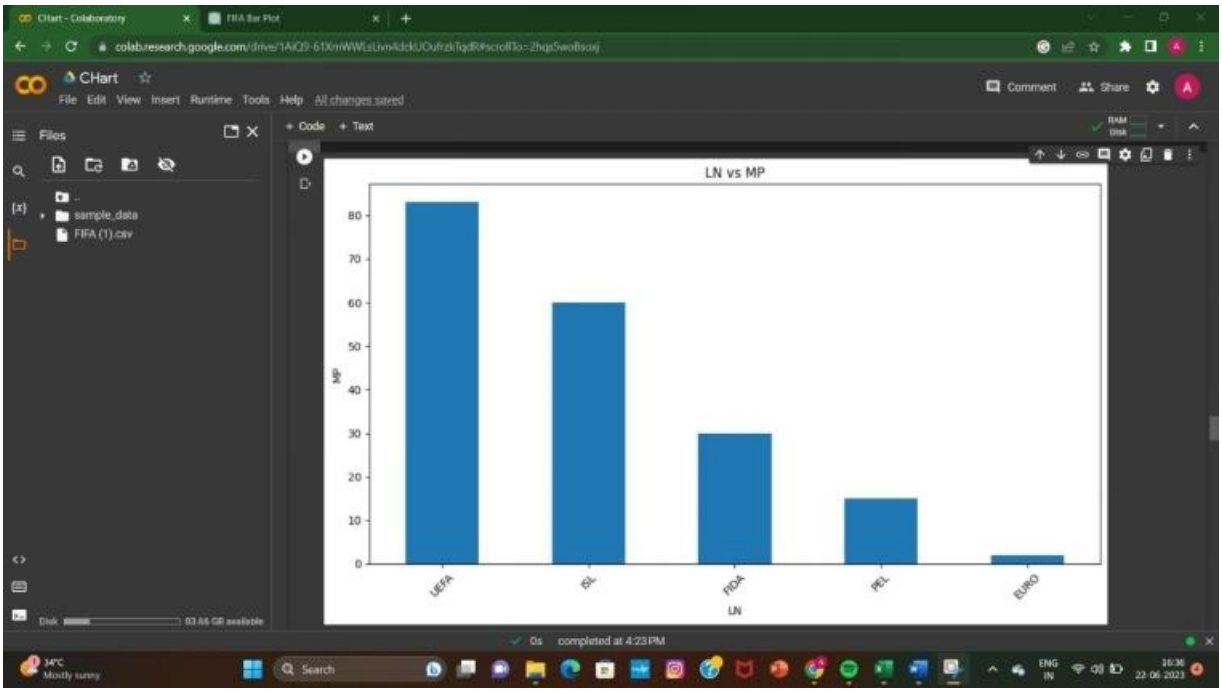


7.

```
importpandasaspd
importmatplotlib.pyplotasplt

#ReadCSVintopandas
data = pd.read_csv("/content/FIFA
(1).csv")df=pd.DataFrame(data)

#Groupthedatabyleagueandcalculatethetotalmatchesplayedmatches
_per_league=df.groupby('LN')['MP'].sum()

# Sort the leagues based on the total matches
playedsorted_leagues=matches_per_league.sort_values(ascending
=False)

#Plotthedata
fig,ax =
plt.subplots(figsize=(10,6))sorted_le
agues.plot(kind='bar',ax=ax)

# Set labels and
titleax.set_xlabel('LN')
ax.set_ylabel('MP')ax.se
t_title('LNvsMP')
```

```
# Show the
plotplt.tight_lay
out()plt.show()
```

OUTPUT-

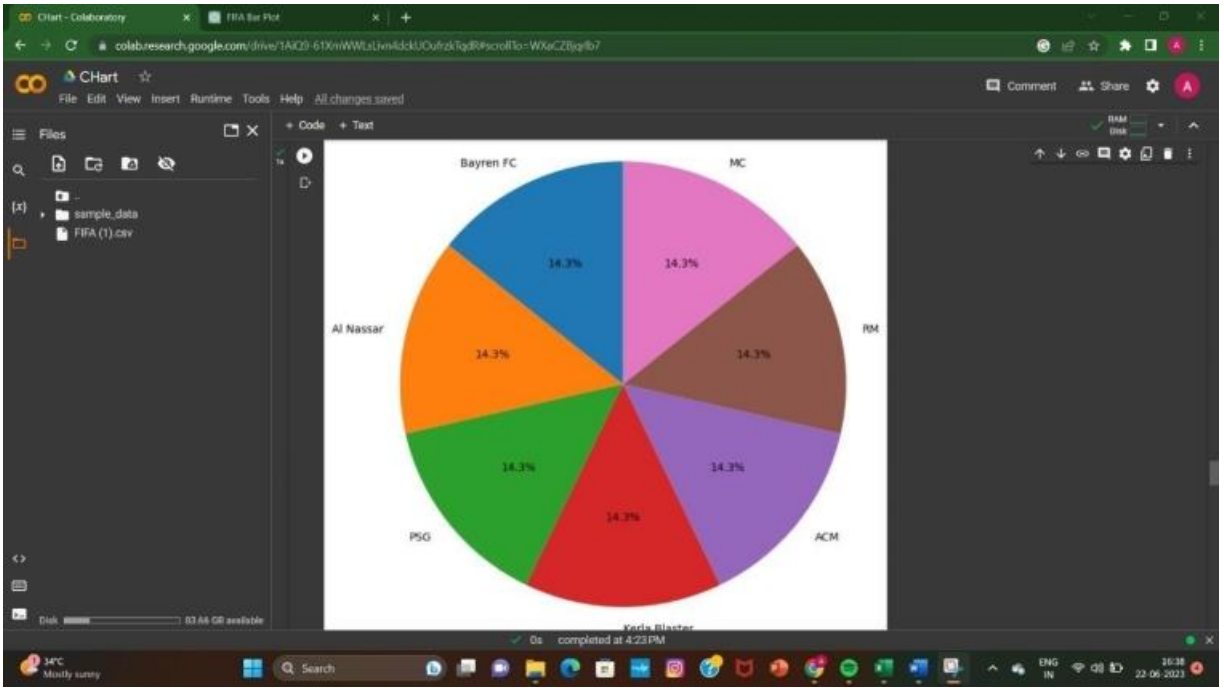


8.

```
importpandasaspd
importmatplotlib.pyplotasplt

#ReadCSVintopandas
data = pd.read_csv("/content/FIFA
(1).csv")df=pd.DataFrame(data)

# Count the number of matches played per
teamteam_matches =df['TN'].value_counts()

# Extract team names and match
countsteam_names =
team_matches.index.tolist()matches_pla
yed=team_matches.tolist()

# Create a pie
chartplt.figure(figsize=
```

```
plt.title('TNvsMP')
plt.axis('equal')#Equalaspectratioensuresthatpieisdrawnasacircle

#Showthepiechartplt
.show()
```

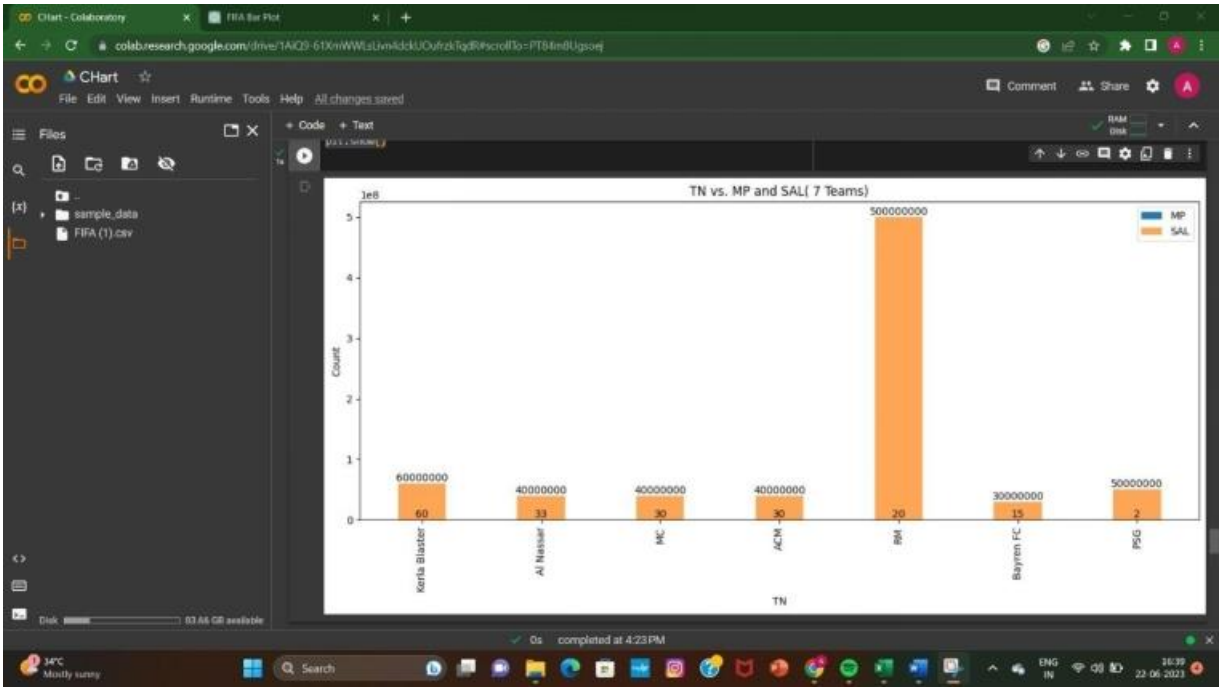
OUTPUT-



9.

```
importpandasaspd
importmatplotlib.pyplotasplt

#ReadCSVintopandas
data = pd.read_csv("/content/FIFA
(1).csv")df=pd.DataFrame(data)

#Extractthedesiredcolumnste
am_name =
df['TN']matches_played =
df['MP']salary=df['SAL']

#Sortthedatabymatchesplayedindescendingorder
sorted_indices = matches_played.argsort()[::-1]# Get the indices
thatsort thematches playedindescendingorder
```

OUTPUT-



10.

```
importpandasaspd
importmatplotlib.pyplotasplt

#ReadCSVintopandas
data = pd.read_csv("/content/FIFA
(1).csv")df=pd.DataFrame(data)

#Extractthedesiredcolumnsna
me =df['PN'].head(12)
matches_played =
df['MP'].head(12)goals_scored=df
['GS'].head(12)

#Setthefiguresize
fig,ax=plt.subplots(figsize=(12,8))

#Plotthebarsformatchesplayed
ax.bar(name,matches_played,label='MP',color='blue',alpha=0.6)

#Plotthebarsforgoalsscored
ax.bar(name,goals_scored,label='GS',color='orange',alpha=0.6)

#Setthetitleandlabels
```

```
ax.set_ylabel('Count',fontsize=12)

#Addalegendax
.legend()

# Rotate x-axis labels for better
visibilityplt.xticks(rotation=45)

#Showtheplotpl
t.show()
```

OUTPUT-