In [1]:

```python
import requests
from bs4 import BeautifulSoup
import pandas as pd
from matplotlib import pyplot as plt
import seaborn as sns
```

In [2]:

```python
import requests
from bs4 import BeautifulSoup
import pandas as pd

url = "https://www.foxsports.com/soccer/fifa-world-cup/history"
page = requests.get(url)
soup = BeautifulSoup(page.text,"html.parser")
table = soup.find("table",{"class":"wisbb_heStandard"})

headers = []

for i in table.find_all("th"):
    title = i.text
    headers.append(title)

df = pd.DataFrame(columns = headers)

for row in table.find_all("tr")[1:]:
    data = row.find_all("td")
    row_data = [i.text.strip() for i in data]
    length = len(df)
    df.loc[length]= row_data


#df.to_csv("FIFA_WC.csv",index=False)
```

In [3]:

```python
df
```

Out[3]:

	Year	Host	Champion	Runner Up	Third Place	Teams	Matches Played	Goals Scored	Avg Goals Per Game
0	2018	Russia	France	Croatia	Belgium	32	64	169	2.6
1	2014	Brazil	Germany	Argentina	Netherlands	32	64	171	2.7
2	2010	South Africa	Spain	Netherlands	Germany	32	64	145	2.3
3	2006	Germany	Italy	France	Germany	32	64	147	2.3
4	2002	South Korea, Japan	Brazil	Germany	Turkey	32	64	161	2.5
5	1998	France	France	Brazil	Croatia	32	64	171	2.7
6	1994	United States	Brazil	Italy	Sweden	24	52	141	2.7
7	1990	Italy	West Germany	Argentina	Italy	24	52	115	2.2
8	1986	Mexico	Argentina	West Germany	France	24	52	132	2.5
9	1982	Spain	Italy	West Germany	Poland	24	52	146	2.8
10	1978	Argentina	Argentina	Netherlands	Brazil	16	38	102	2.7
11	1974	West Germany	West Germany	Netherlands	Poland	16	38	97	2.6
12	1970	Mexico	Brazil	Italy	West Germany	16	32	95	3.0
13	1966	England	England	West Germany	Portugal	16	32	89	2.8
14	1962	Chile	Brazil	Czechoslovakia	Chile	16	32	89	2.8
15	1958	Sweden	Brazil	Sweden	France	16	35	126	3.6
16	1954	Switzerland	West Germany	Hungary	Austria	16	26	140	5.4
17	1950	Brazil	Uruguay	Brazil	Sweden	13	22	88	4.0
18	1938	France	Italy	Hungary	Brazil	15	18	84	4.7
19	1934	Italy	Italy	Czechoslovakia	Germany	16	17	70	4.1
20	1930	Uruguay	Uruguay	Argentina	United States	13	16	70	3.6

In [4]:

```python
df.info()
```

```
<class 'pandas.core.frame.DataFrame'>
Int64Index: 21 entries, 0 to 20
Data columns (total 9 columns):
 #   Column             Non-Null Count  Dtype
```

```
---  ------              --------------  -----
 0   Year                21 non-null     object
 1   Host                21 non-null     object
 2   Champion            21 non-null     object
 3   Runner Up           21 non-null     object
 4   Third Place         21 non-null     object
 5   Teams               21 non-null     object
 6   Matches Played      21 non-null     object
 7   Goals Scored        21 non-null     object
 8   Avg Goals Per Game  21 non-null     object
dtypes: object(9)
memory usage: 1.6+ KB
```

In [5]:

```
df["Year"]=df["Year"].astype(int)
df["Teams"]=df["Teams"].astype(int)
df["Matches Played"]=df["Matches Played"].astype(int)
df["Goals Scored"]=df["Goals Scored"].astype(int)
df["Avg Goals Per Game"]=df["Avg Goals Per Game"].astype(float)
```

In [6]:

```
df.info()
```

```
<class 'pandas.core.frame.DataFrame'>
Int64Index: 21 entries, 0 to 20
Data columns (total 9 columns):
 #   Column              Non-Null Count  Dtype
---  ------              --------------  -----
 0   Year                21 non-null     int32
 1   Host                21 non-null     object
 2   Champion            21 non-null     object
 3   Runner Up           21 non-null     object
 4   Third Place         21 non-null     object
 5   Teams               21 non-null     int32
 6   Matches Played      21 non-null     int32
 7   Goals Scored        21 non-null     int32
 8   Avg Goals Per Game  21 non-null     float64
dtypes: float64(1), int32(4), object(4)
memory usage: 1.3+ KB
```

1. Which is the best team in world cup ?

In [7]:

```
df.Champion.value_counts()
```

Out[7]:

```
Brazil          5
Italy           4
West Germany    3
Uruguay         2
France          2
Argentina       2
Germany         1
England         1
Spain           1
Name: Champion, dtype: int64
```

In [8]:

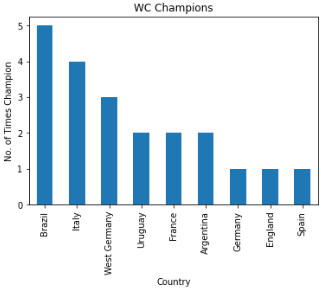
```
df[df['Year']>2000]['Champion'].value_counts()
```

Out[8]:

```
Germany    1
Italy      1
Brazil     1
France     1
Spain      1
Name: Champion, dtype: int64
```

In [9]:

```
df["Champion"].value_counts().plot(kind="bar")
plt.title("WC Champions")
plt.ylabel("No. of Times Champion")
plt.xlabel("Country")
plt.show()
```



Brazil is the best team in wc history.

2. Which is the best team in 90's era ?

In [10]:

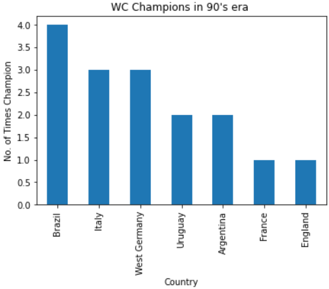
```
df[df['Year']<2000]['Champion'].value_counts()
```

Out[10]:

```
Brazil          4
Italy           3
West Germany    3
Uruguay         2
Argentina       2
France          1
England         1
Name: Champion, dtype: int64
```

In [11]:

```
df[df['Year']<2000]['Champion'].value_counts().plot(kind="bar")
plt.title("WC Champions in 90's era ")
plt.ylabel("No. of Times Champion")
plt.xlabel("Country")
plt.show()
```

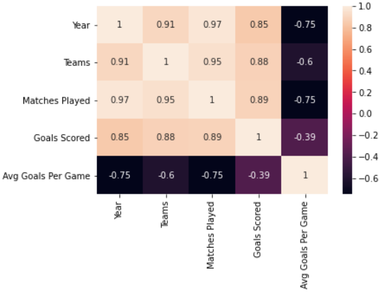


Brazil is the best team in 90's era

3. Host winning world cup.

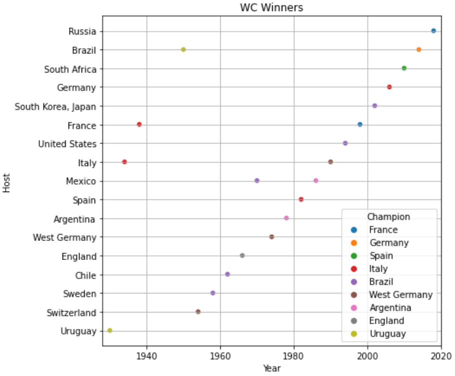
In [12]:

```
corr = df.corr()
sns.heatmap(corr,annot=True)
plt.show()
```



In [13]:

```
plt.figure(figsize=(7,7))
sns.scatterplot(data=df,x="Year",y="Host",hue="Champion")
plt.xlim(1928,2020)
plt.grid()
plt.title("WC Winners")
plt.show()
```



In [14]:

```
df[df['Host']==df['Champion']]
```

Out[14]:

	Year	Host	Champion	Runner Up	Third Place	Teams	Matches Played	Goals Scored	Avg Goals Per Game
5	1998	France	France	Brazil	Croatia	32	64	171	2.7
10	1978	Argentina	Argentina	Netherlands	Brazil	16	38	102	2.7
11	1974	West Germany	West Germany	Netherlands	Poland	16	38	97	2.6
13	1966	England	England	West Germany	Portugal	16	32	89	2.8
19	1934	Italy	Italy	Czechoslovakia	Germany	16	17	70	4.1
20	1930	Uruguay	Uruguay	Argentina	United States	13	16	70	3.6

Only six times host country win the wc.

4. Which country host most no. of world cup ?

In [15]:

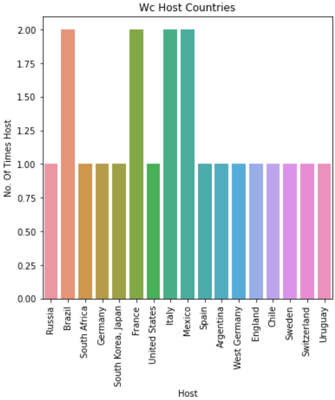
```
df["Host"].value_counts()
```

Out[15]:

```
Mexico                2
Brazil                2
France                2
Italy                 2
South Africa          1
Russia                1
South Korea, Japan    1
Germany               1
Switzerland           1
Argentina             1
Sweden                1
United States         1
England               1
Chile                 1
Uruguay               1
West Germany          1
Spain                 1
Name: Host, dtype: int64
```

In [16]:

```
plt.figure(figsize=(6,6))
sns.countplot(data=df,x="Host")
plt.title("Wc Host Countries")
plt.ylabel("No. Of Times Host")
plt.xticks(rotation=90)
plt.show()
```

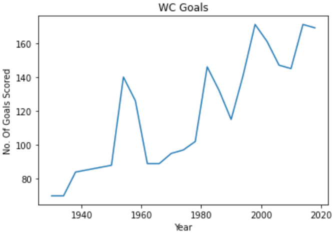


Brazil, France, Italy, Mexico host most no. of Wc that is two times.

4. No. of goals scored per year and average goals per game per year increasing or not ?

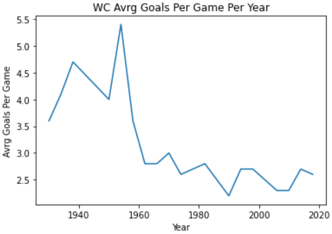
In [17]:

```
plt.plot(df["Year"],df["Goals Scored"])
plt.title("WC Goals")
plt.xlabel("Year")
plt.ylabel("No. Of Goals Scored")
plt.show()
```



In [18]:

```
plt.plot(df["Year"],df["Avg Goals Per Game"])
plt.title("WC Avrg Goals Per Game Per Year")
plt.xlabel("Year")
plt.ylabel("Avrg Goals Per Game")
plt.show()
plt.show()
```

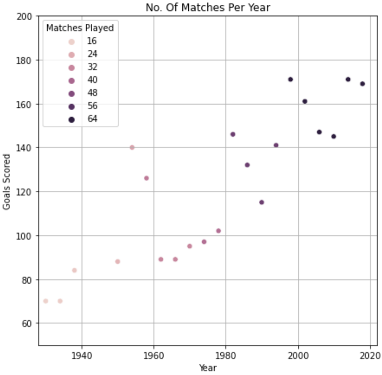


Goals Scored per year is increasing.

5. No. of Matches per year.

In [19]:

```
plt.figure(figsize=(7,7))
sns.scatterplot(data=df,x="Year",y="Goals Scored",hue="Matches Played")
plt.title("No. Of Matches Per Year")
plt.ylim(50,200)
plt.xlim(1928,2022)
plt.grid()
```



no. of matches played per year is increasing.

6. Max and min no. of goals scored in which year ?

In [20]:

```
df[df["Goals Scored"]==df["Goals Scored"].max()]["Year"]
```

Out[20]:

```
1     2014
5     1998
Name: Year, dtype: int32
```

In [21]:

```
df[df["Goals Scored"]==df["Goals Scored"].min()]["Year"]
```

Out[21]:

```
19     1934
20     1930
Name: Year, dtype: int32
```

max no. of goals scored in 1998 and 2014. and min no. og goals scored in 1930 and 1934.

7. In which years France won the world cup?

In [22]:

```
df[df['Champion']=='France']['Year']
```

Out[22]:

```
0     2018
5     1998
Name: Year, dtype: int32
```

In [23]:

```
df[(df["Champion"] == "France")]
```

Out[23]:

	Year	Host	Champion	Runner Up	Third Place	Teams	Matches Played	Goals Scored	Avg Goals Per Game
0	2018	Russia	France	Croatia	Belgium	32	64	169	2.6
5	1998	France	France	Brazil	Croatia	32	64	171	2.7

france wins wc in 1938 and 2018.

8. In which years Italy Uruguay and argentina won the world cup ?

In [24]:

```
df[(df["Champion"] == "Italy") | (df["Champion"] == "Uruguay") | (df["Champion"] == "Argentina") ]
```

Out[24]:

	Year	Host	Champion	Runner Up	Third Place	Teams	Matches Played	Goals Scored	Avg Goals Per Game
3	2006	Germany	Italy	France	Germany	32	64	147	2.3
8	1986	Mexico	Argentina	West Germany	France	24	52	132	2.5
9	1982	Spain	Italy	West Germany	Poland	24	52	146	2.8
10	1978	Argentina	Argentina	Netherlands	Brazil	16	38	102	2.7
17	1950	Brazil	Uruguay	Brazil	Sweden	13	22	88	4.0
18	1938	France	Italy	Hungary	Brazil	15	18	84	4.7
19	1934	Italy	Italy	Czechoslovakia	Germany	16	17	70	4.1
20	1930	Uruguay	Uruguay	Argentina	United States	13	16	70	3.6

Italy wins wc in 1934,1938,1982,2006, Uruguay wins wc in 1930,1950, Argentina wins wc in 1978,1986

9. In which years Brazil, Italy, Sweden finished at runner up?

In [25]:

```
df[df["Runner Up"].isin(["Brazil","Italy","Sweden"])]
```

Out[25]:

	Year	Host	Champion	Runner Up	Third Place	Teams	Matches Played	Goals Scored	Avg Goals Per Game
5	1998	France	France	Brazil	Croatia	32	64	171	2.7
6	1994	United States	Brazil	Italy	Sweden	24	52	141	2.7
12	1970	Mexico	Brazil	Italy	West Germany	16	32	95	3.0

15	1958	Sweden	Brazil	Sweden	France	16	35	126	3.6
17	1950	Brazil	Uruguay	Brazil	Sweden	13	22	88	4.0

Brazil runner up in 1950,1998, Italy runner up in 1970,1994, Sweden runner up in 1958

10. In which year United States finished at third place?

In [26]:

```
df[df["Third Place"].str.contains("United States")]
```

Out[26]:

	Year	Host	Champion	Runner Up	Third Place	Teams	Matches Played	Goals Scored	Avg Goals Per Game
20	1930	Uruguay	Uruguay	Argentina	United States	13	16	70	3.6

United States finished at third place in 1930.

11. Who is the inaugural world cup winner ?

In [27]:

```
df[df['Year']==1930]['Champion']
```

Out[27]:

```
20    Uruguay
Name: Champion, dtype: object
```

Uruguay is the inaugaral wc winner.

12.How many times unique team won world cup ?

In [28]:

```
df.Champion.nunique()
```

Out[28]:

```
9
```

there are 9 occasions when new team wins wc.

In [29]:

```
df["Champion"].value_counts()
```

Out[29]:

```
Brazil          5
Italy           4
West Germany    3
Uruguay         2
France          2
Argentina       2
Germany         1
England         1
Spain           1
Name: Champion, dtype: int64
```

In [30]:

```
df["Runner Up"].value_counts()
```

Out[30]:

```
Argentina         3
West Germany      3
Netherlands       3
Hungary           2
Brazil            2
Italy             2
Czechoslovakia    2
Germany           1
France            1
Sweden            1
Croatia           1
Name: Runner Up, dtype: int64
```

In [31]:

```
# Brazil wins world cup 5 times.
# Total appearance in world cup final 7 times.
chances = 5*100/7
chances
```

Out[31]:

```
71.42857142857143
```

In [32]:

```
# Italy wins world cup 4 times.
# Total appearance in world cup final 6 times.
chances1 = 4*100/6
chances1
```

Out[32]:
```
66.66666666666667
```

In [33]:
```
# Only 6 times host wins the cup final.
# Total world cups tornament organized 21 times.
chances2 = 6*100/20
chances2
```

Out[33]:
```
30.0
```

Conclusion

1. Brazil is the best team of all time in world cup.
2. Brazil is the best team in 90's era.
3. Brazil wins world cup 5 times and runner up 2 times.
4. Italy wins world cup 4 times and runner up 2 times.
5. In last 20 years there are unique world cup winners so there is no team particularly dominating.
6. Only 6 times team wins the world cup while hosting the tournament which means that there are more pressure on hosts and there are less chances to win world cup while hosting.
7. In world cup history only 9 unique teams wins the world cup.
8. Goals scored per year ratio is increasing.

Result

From above points we colclude that if Brazil or Italy qualifies for world cup final then brazil have 71.42% chance of winning the world cup and Italy have 66.66% chance of winning the world cup.

Hosting country have only 30% chance of winning the world cup.

Thank You

In [ ]:
```
```