CLASS: CSE7345

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QUEST: Part D. CSV Files

In [2]:
```
import csv
import json
import matplotlib.pyplot as plt
%matplotlib inline
```

In [3]:
```
with open('worldcup.csv', 'r') as csv_file:
    csv_reader = csv.reader(csv_file)
    title = next(csv_reader)
    titleLen = (len(title))
    worldcupList = []
    for line in csv_reader:
        worldcupDict={}
        for i in range(titleLen):
            worldcupDict[title[i]] = line[i]
        worldcupList.append(worldcupDict)
        #print lenth of the list
    print(len(worldcupList))
```

```
21
```

In [4]:
```
#json object returns in json format
jsonOb=json.dumps(worldcupList,indent=4,sort_keys=True)
jsondata = json.loads(jsonOb)
```

In [5]:
```
#display json with 5 greatest total goals scored
newList=[]
for i in range(len(worldcupList)):
    #add first 5 values in list
    if(i < 5):
        newList.append(worldcupList[i])
    else:
        #compare the values with each of the 5 from list
        for k in range(len(newList)):
            if(int(worldcupList[i]['goalsScored']) > int(newList[k]['goalsScor
ed'])):
                newList[k], worldcupList[i] = worldcupList[i], newList[k]
data = json.dumps(newList)
print(data)
jsondata = json.loads(data)
print(len(jsondata))
```

```
[{"attendance": "2785100", "third": "Croatia", "WorldCup": "wc1998", "secon
d": "Brazil", "matchesPlayed": "64", "location": "France", "fourth": "Netherl
ands", "year": "1998", "goalsScored": "171", "first": "France"}, {"attendanc
e": "3386810", "third": "Netherlands", "WorldCup": "wc2014", "second": "Argen
tina", "matchesPlayed": "64", "location": "Brazil", "fourth": "Brazil", "yea
r": "2014", "goalsScored": "171", "first": "Germany"}, {"attendance": "343000
0 ", "third": "Belgium", "WorldCup": "wc2018", "second": "Croatia", "matchesP
layed": "64", "location": "Russia", "fourth": "England", "year": "2018", "goa
lsScored": "169", "first": "France"}, {"attendance": "2705197", "third": "Tur
key", "WorldCup": "wc2002", "second": "Germany", "matchesPlayed": "64", "loca
tion": "Korea_Japan", "fourth": "KoreaRepublic", "year": "2002", "goalsScore
d": "161", "first": "Brazil"}, {"attendance": "3359439", "third": "Germany",
"WorldCup": "wc2006", "second": "France", "matchesPlayed": "64", "location":
"Germany", "fourth": "Portugal", "year": "2006", "goalsScored": "147", "firs
t": "Italy"}]
5
```

In [6]:
```
totalGoalsList=[]
yearList=[]
for i in range(len(jsondata)):
    yearList.append(jsondata[i]['year'])
    totalGoalsList.append(jsondata[i]['goalsScored'])

#Convert to float for our plots using list comprehension
totalGoalsList=[ float(i) for i in totalGoalsList ]
yearList=[ float(i) for i in yearList ]

#x-axis
print((totalGoalsList))

#y-axis
print((yearList))
```

```
[171.0, 171.0, 169.0, 161.0, 147.0]
[1998.0, 2014.0, 2018.0, 2002.0, 2006.0]
```

In [7]:
```
#ready to plot 5
plt.bar(range(len(yearList)), totalGoalsList, color="blue")
plt.ylabel('Goals')
plt.xlabel('Year')
plt.title('5 Greatest total goals scored\n')
plt.xticks(range(len(yearList)),yearList)
plt.show()
```