

Import libraries

```
In [1]: import numpy as np
```

```
In [2]: import pandas as pd
```

```
In [3]: import seaborn as sns
```

```
In [4]: sns.set(style="whitegrid")
```

```
In [5]: import matplotlib.pyplot as plt
```

```
In [6]: from collections import Counter
```

```
In [7]: %matplotlib inline
```

```
In [8]: # ignore warnings
import warnings
warnings.filterwarnings('ignore')
```

```
In [9]: fifa19 = pd.read_csv(r'D:\17th\Seaborn\FIFA.csv')
```

```
In [10]: fifa19
```

Out[10]:

	Unnamed: 0	ID	Name	Age		Photo	Nation
0	0	158023	L. Messi	31	https://cdn.sofifa.org/players/4/19/158023.png	Argent	
1	1	20801	Cristiano Ronaldo	33	https://cdn.sofifa.org/players/4/19/20801.png	Port	
2	2	190871	Neymar Jr	26	https://cdn.sofifa.org/players/4/19/190871.png	Bra	
3	3	193080	De Gea	27	https://cdn.sofifa.org/players/4/19/193080.png	Spa	
4	4	192985	K. De Bruyne	27	https://cdn.sofifa.org/players/4/19/192985.png	Belg	
...	
18202	18202	238813	J. Lundstram	19	https://cdn.sofifa.org/players/4/19/238813.png	Eng	
18203	18203	243165	N. Christoffersson	19	https://cdn.sofifa.org/players/4/19/243165.png	Swi	
18204	18204	241638	B. Worman	16	https://cdn.sofifa.org/players/4/19/241638.png	Eng	
18205	18205	246268	D. Walker-Rice	17	https://cdn.sofifa.org/players/4/19/246268.png	Eng	
18206	18206	246269	G. Nugent	16	https://cdn.sofifa.org/players/4/19/246269.png	Eng	

18207 rows × 89 columns

In [11]: `fifa19.head()`

Out[11]:

	Unnamed: 0	ID	Name	Age		Photo	Nationality	
0	0	158023	L. Messi	31	https://cdn.sofifa.org/players/4/19/158023.png	Argentina	https://cdn.sofifa.org/players/4/19/158023.png	
1	1	20801	Cristiano Ronaldo	33	https://cdn.sofifa.org/players/4/19/20801.png	Portugal	https://cdn.sofifa.org/players/4/19/20801.png	
2	2	190871	Neymar Jr	26	https://cdn.sofifa.org/players/4/19/190871.png	Brazil	https://cdn.sofifa.org/players/4/19/190871.png	
3	3	193080	De Gea	27	https://cdn.sofifa.org/players/4/19/193080.png	Spain	https://cdn.sofifa.org/players/4/19/193080.png	
4	4	192985	K. De Bruyne	27	https://cdn.sofifa.org/players/4/19/192985.png	Belgium	https://cdn.sofifa.org/players/4/19/192985.png	

5 rows × 89 columns

In [12]: `fifa19.info()`

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 18207 entries, 0 to 18206
Data columns (total 89 columns):
 #   Column           Non-Null Count Dtype
 ---  -----
 0   Unnamed: 0        18207 non-null  int64
 1   ID               18207 non-null  int64
 2   Name              18207 non-null  object
 3   Age               18207 non-null  int64
 4   Photo              18207 non-null  object
 5   Nationality        18207 non-null  object
 6   Flag               18207 non-null  object
 7   Overall             18207 non-null  int64
 8   Potential            18207 non-null  int64
 9   Club                17966 non-null  object
 10  Club Logo            18207 non-null  object
 11  Value               18207 non-null  object
 12  Wage                18207 non-null  object
 13  Special              18207 non-null  int64
 14  Preferred Foot       18159 non-null  object
 15  International Reputation 18159 non-null  float64
 16  Weak Foot             18159 non-null  float64
 17  Skill Moves            18159 non-null  float64
 18  Work Rate              18159 non-null  object
 19  Body Type              18159 non-null  object
 20  Real Face              18159 non-null  object
 21  Position              18147 non-null  object
 22  Jersey Number          18147 non-null  float64
 23  Joined                16654 non-null  object
 24  Loaned From             1264 non-null  object
 25  Contract Valid Until    17918 non-null  object
 26  Height                 18159 non-null  object
 27  Weight                 18159 non-null  object
 28  LS                      16122 non-null  object
 29  ST                      16122 non-null  object
 30  RS                      16122 non-null  object
 31  LW                      16122 non-null  object
 32  LF                      16122 non-null  object
 33  CF                      16122 non-null  object
 34  RF                      16122 non-null  object
 35  RW                      16122 non-null  object
 36  LAM                     16122 non-null  object
 37  CAM                     16122 non-null  object
 38  RAM                     16122 non-null  object
 39  LM                      16122 non-null  object
 40  LCM                     16122 non-null  object
 41  CM                      16122 non-null  object
 42  RCM                     16122 non-null  object
 43  RM                      16122 non-null  object
 44  LWB                     16122 non-null  object
 45  LDM                     16122 non-null  object
 46  CDM                     16122 non-null  object
 47  RDM                     16122 non-null  object
 48  RWB                     16122 non-null  object
 49  LB                      16122 non-null  object
 50  LCB                     16122 non-null  object
 51  CB                      16122 non-null  object
 52  RCB                     16122 non-null  object
 53  RB                      16122 non-null  object
 54  Crossing                  18159 non-null  float64
 55  Finishing                  18159 non-null  float64
 56  HeadingAccuracy            18159 non-null  float64
 57  ShortPassing                  18159 non-null  float64
 58  Volleys                   18159 non-null  float64
```

```
59 Dribbling           18159 non-null float64
60 Curve               18159 non-null float64
61 FKAccuracy          18159 non-null float64
62 LongPassing         18159 non-null float64
63 BallControl          18159 non-null float64
64 Acceleration        18159 non-null float64
65 SprintSpeed          18159 non-null float64
66 Agility              18159 non-null float64
67 Reactions             18159 non-null float64
68 Balance              18159 non-null float64
69 ShotPower             18159 non-null float64
70 Jumping              18159 non-null float64
71 Stamina              18159 non-null float64
72 Strength              18159 non-null float64
73 LongShots             18159 non-null float64
74 Aggression            18159 non-null float64
75 Interceptions         18159 non-null float64
76 Positioning            18159 non-null float64
77 Vision                18159 non-null float64
78 Penalties              18159 non-null float64
79 Composure              18159 non-null float64
80 Marking                18159 non-null float64
81 StandingTackle         18159 non-null float64
82 SlidingTackle          18159 non-null float64
83 GKDiving              18159 non-null float64
84 GKHandling             18159 non-null float64
85 GKKicking              18159 non-null float64
86 GKPositioning           18159 non-null float64
87 GKReflexes             18159 non-null float64
88 Release Clause          16643 non-null object
dtypes: float64(38), int64(6), object(45)
memory usage: 12.4+ MB
```

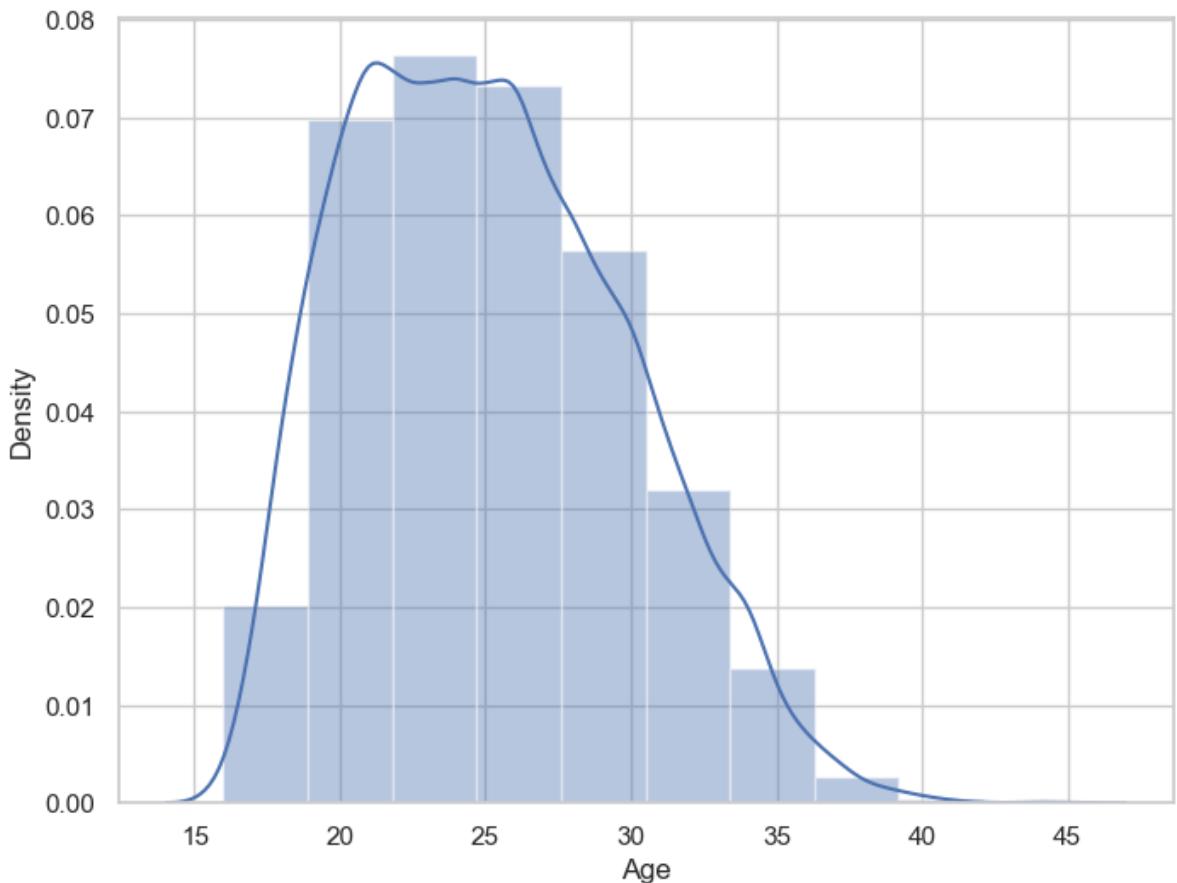
```
In [13]: fifa19['Body Type'].value_counts()
```

```
Out[13]: Normal          10595
Lean              6417
Stocky             1140
Messi              1
C. Ronaldo         1
Neymar              1
Courtois             1
PLAYER_BODY_TYPE_25  1
Shaqiri              1
Akinfenwa            1
Name: Body Type, dtype: int64
```

Explore Age variable

Visualize distribution of Age variable with Seaborn distplot() function

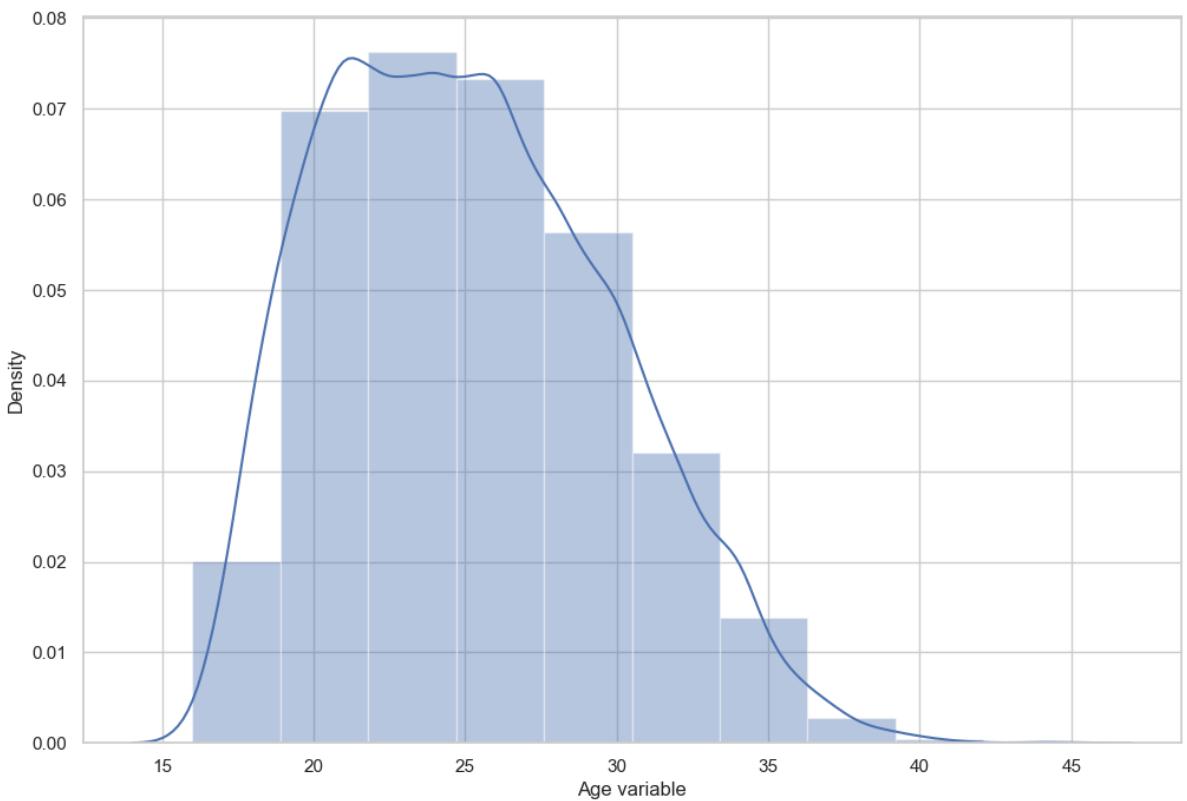
```
In [14]: f, ax=plt.subplots(figsize=(8,6))
x = fifa19['Age']
ax = sns.distplot(x, bins=10)
plt.show()
```



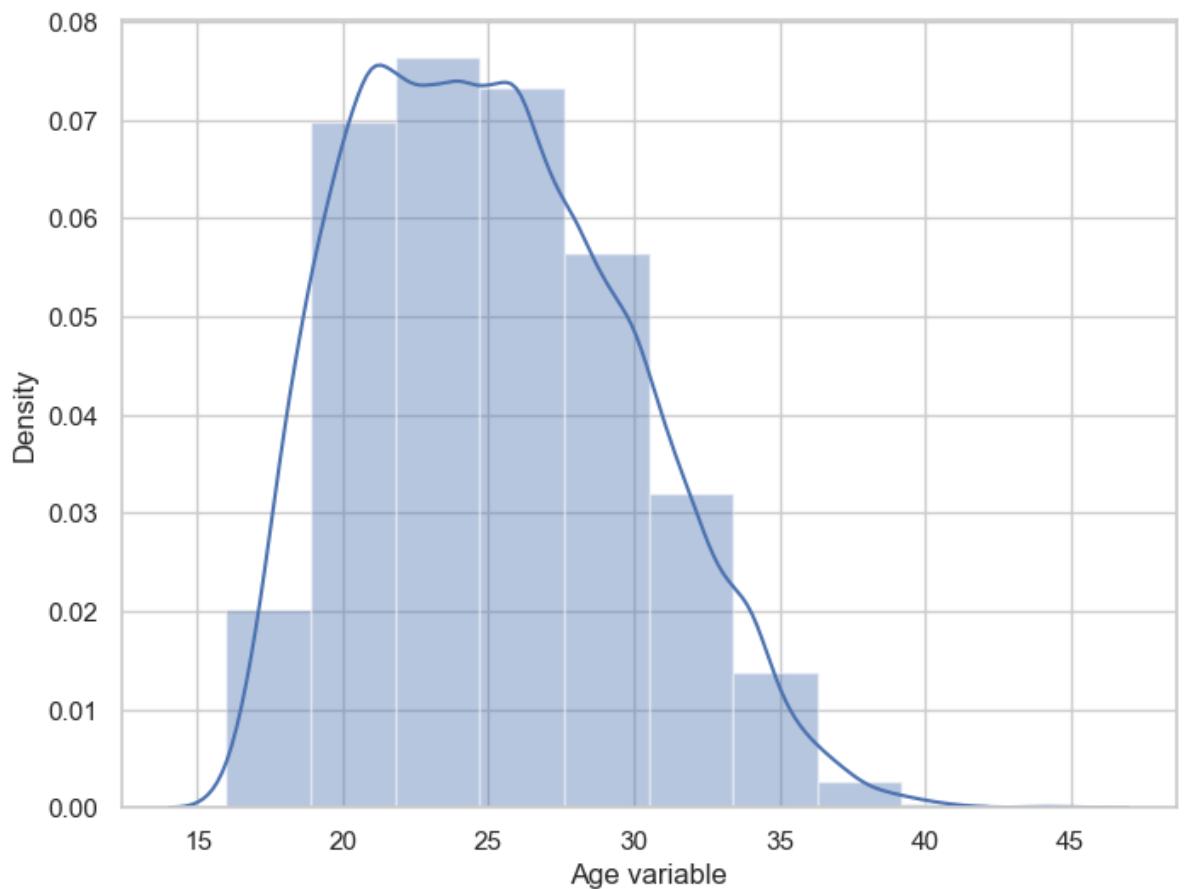
```
In [15]: fifa19['Age'].skew()
```

```
Out[15]: 0.3917641387687474
```

```
In [16]: f,ax = plt.subplots(figsize=(12,8))
x = fifa19['Age']
x = pd.Series(x, name="Age variable")
ax = sns.distplot(x, bins=10)
plt.show()
```



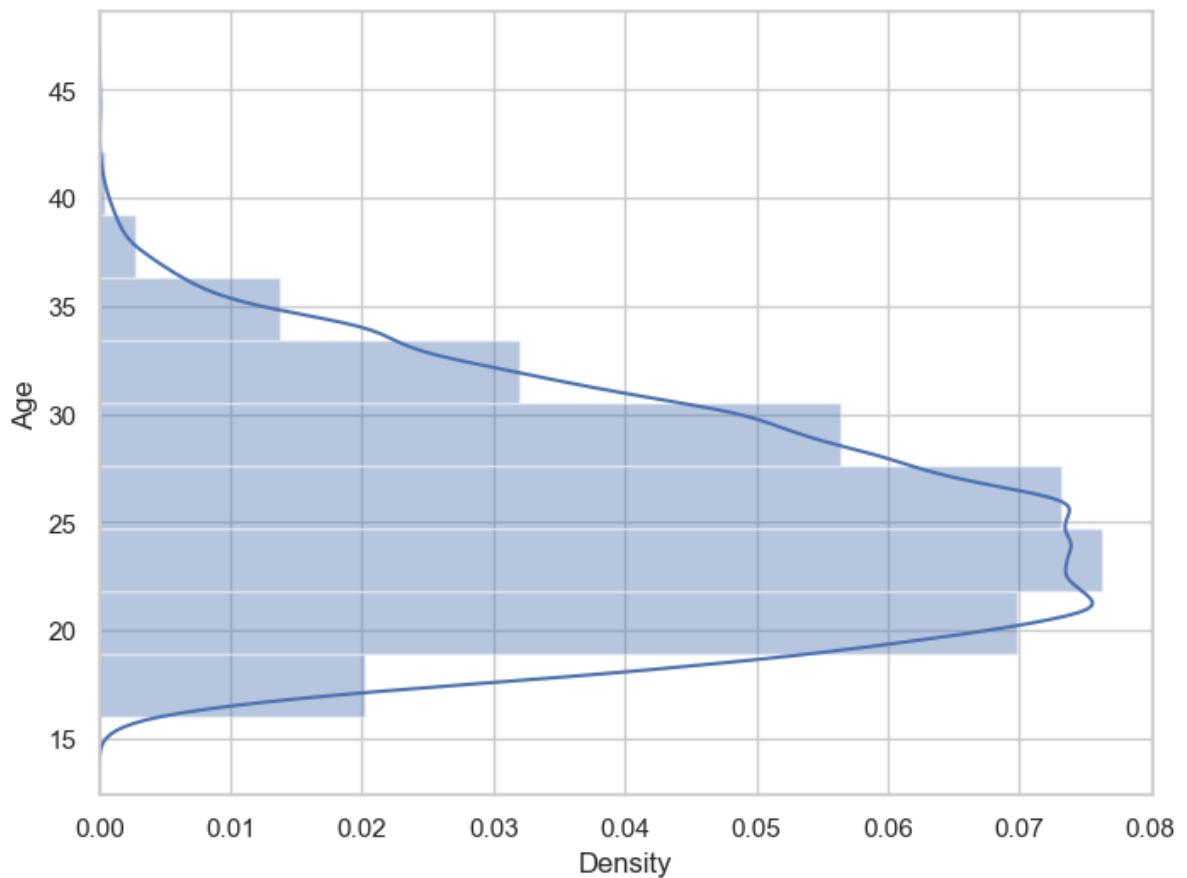
```
In [17]: f,ax = plt.subplots(figsize=(8,6))
x = fifa19['Age']
x = pd.Series(x, name="Age variable")
ax = sns.distplot(x, bins=10)
plt.show()
```



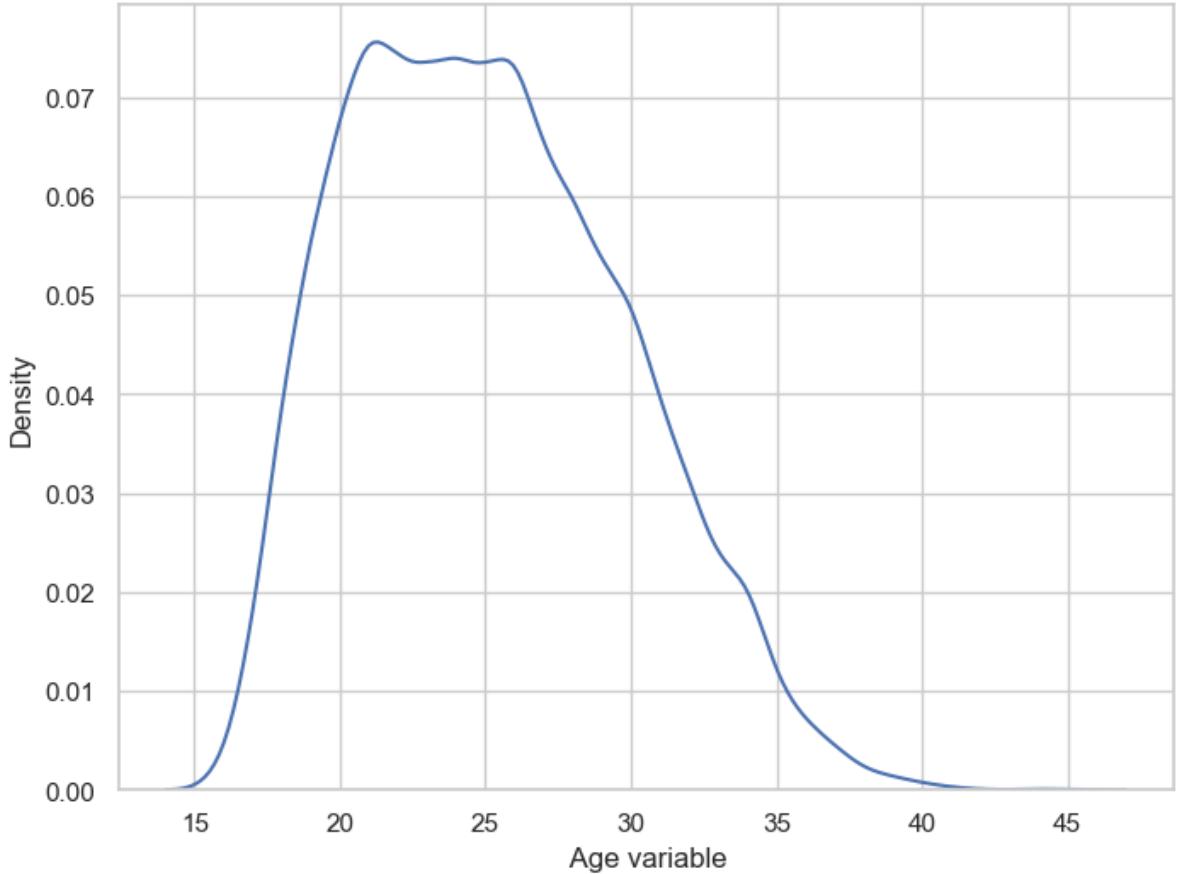
We can plot the distribution on the vertical axis as follows:-

```
In [18]: f, ax = plt.subplots(figsize=(8,6))
x = fifa19['Age']
```

```
ax = sns.distplot(x, bins=10, vertical = True)
plt.show()
```

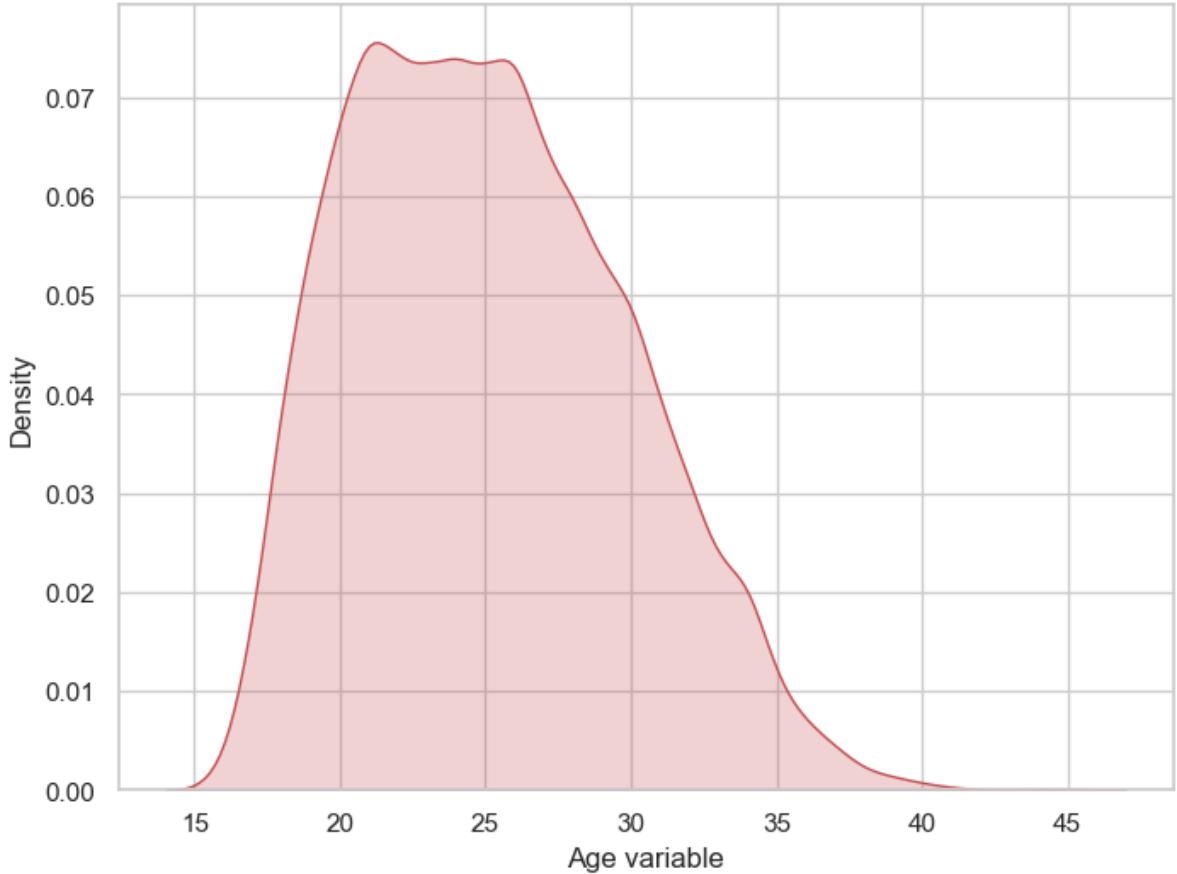


```
In [19]: f, ax = plt.subplots(figsize=(8,6))
x = fifa19['Age']
x= pd.Series(x, name =" Age variable")
ax = sns.kdeplot(x)
plt.show()
```

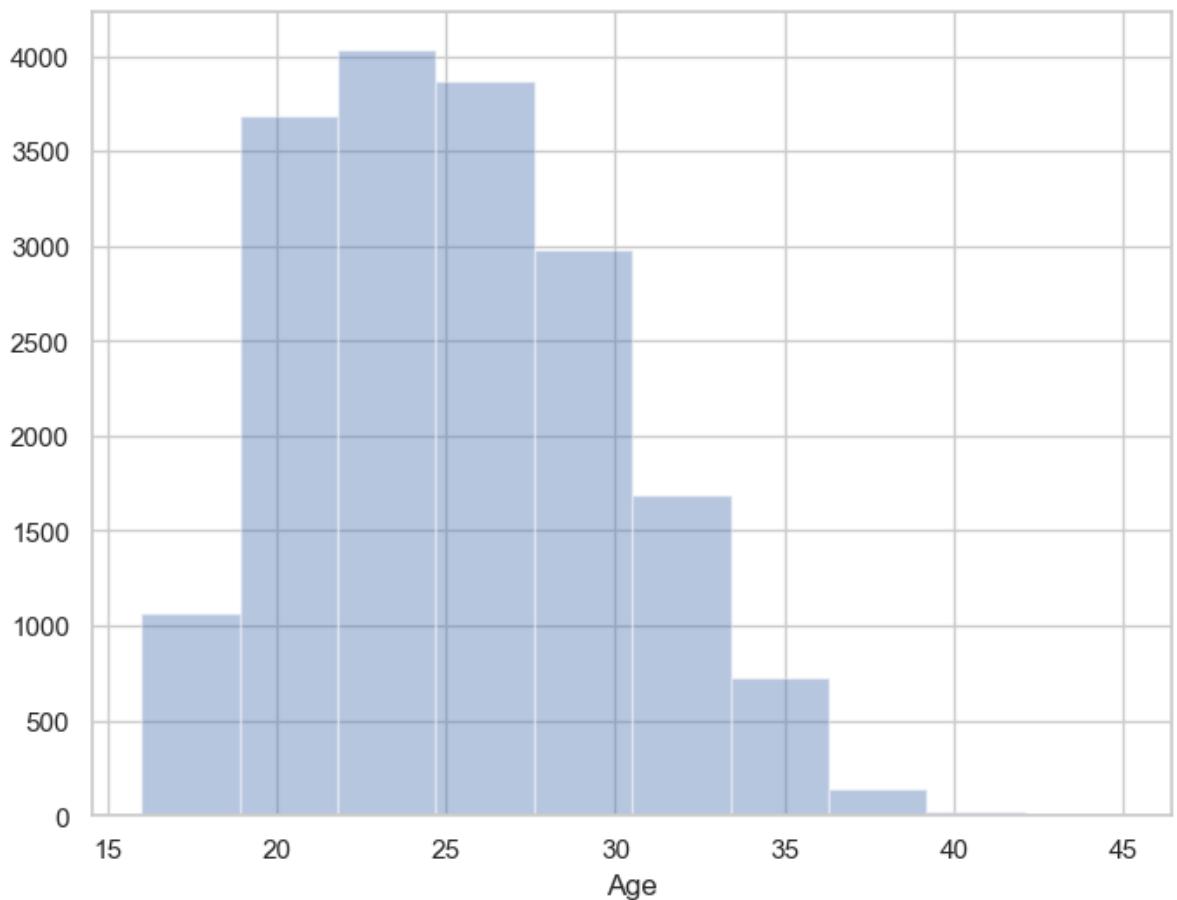


note- if we want to data plot graph only then we apply to kdeplot.

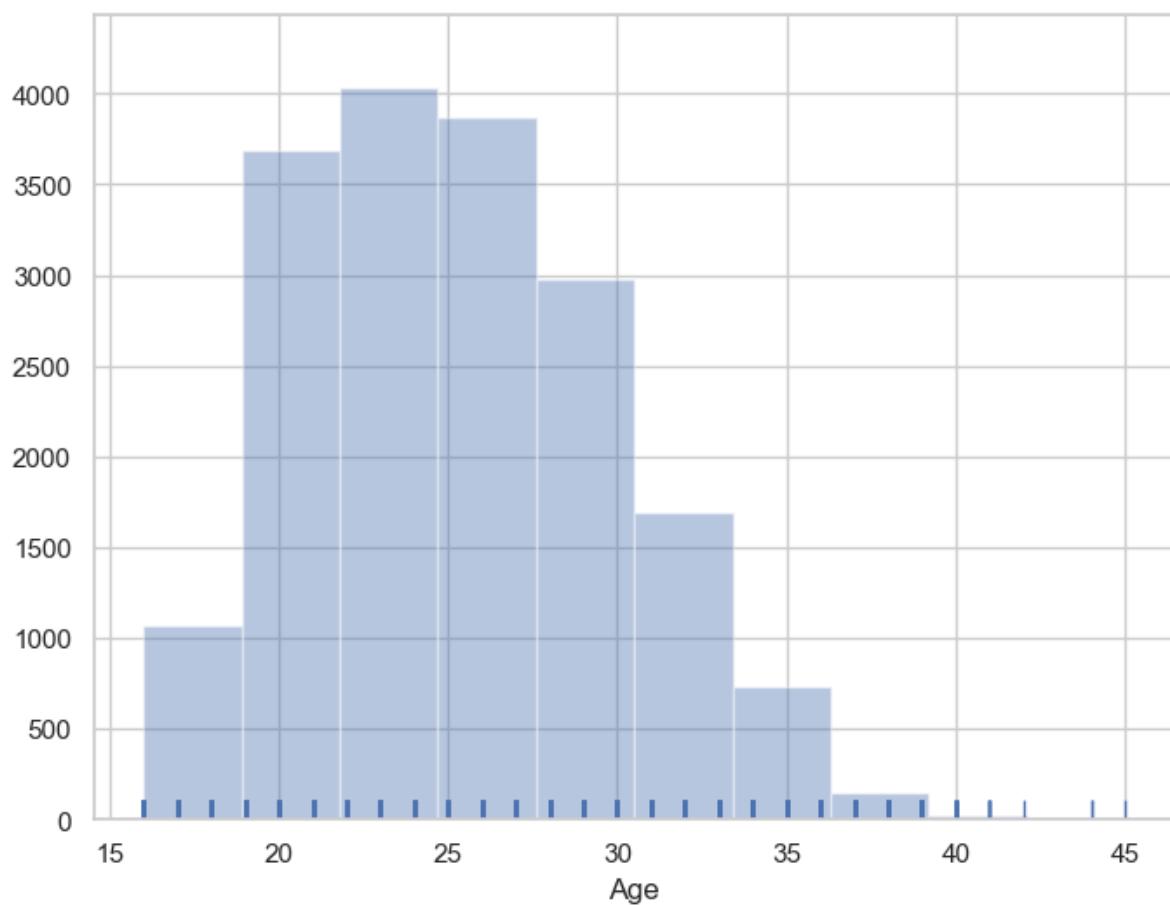
```
In [20]: f, ax = plt.subplots(figsize = (8,6))
x = fifa19['Age']
x = pd.Series(x, name = "Age variable")
ax = sns.kdeplot(x, shade = True, color = 'r')
plt.show()
```



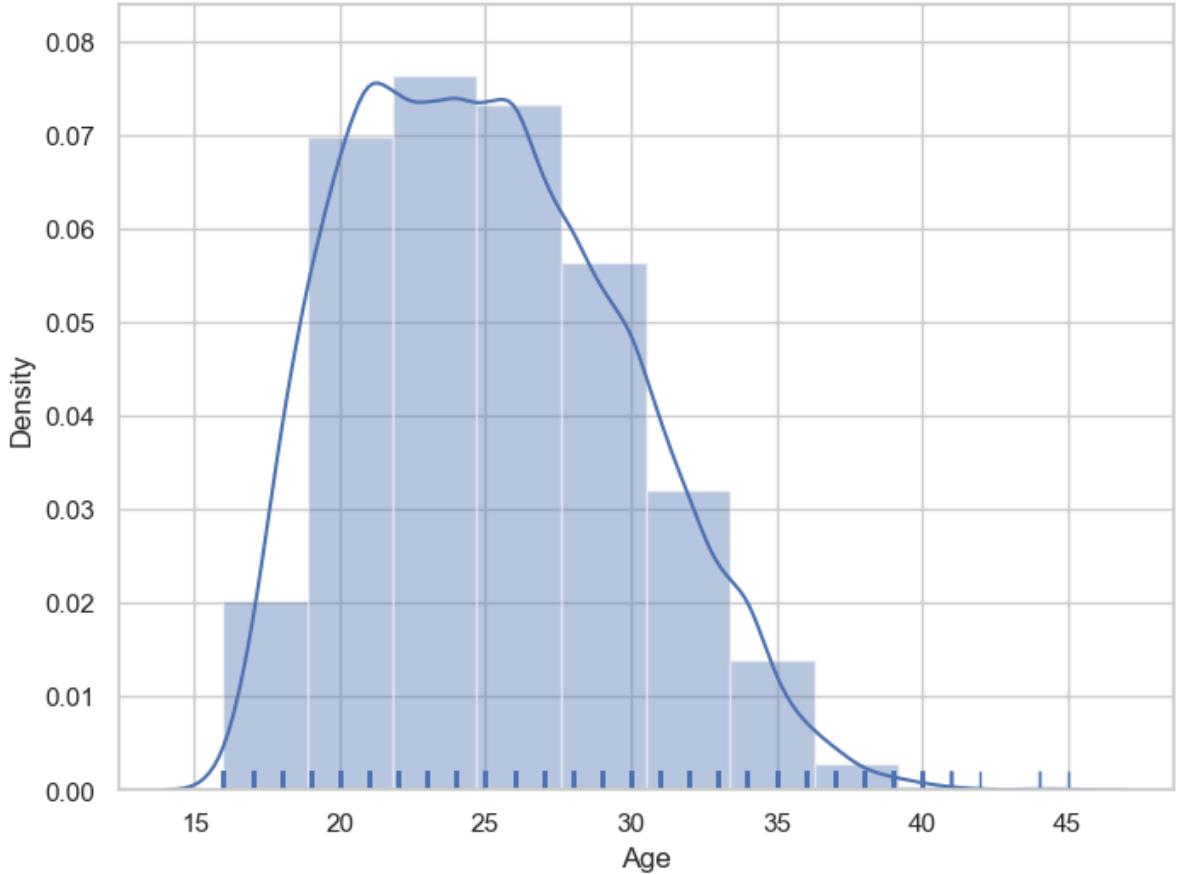
```
In [21]: f, ax = plt.subplots(figsize = (8,6))
x = fifa19['Age']
ax = sns.distplot(x, kde=False, bins=10)
plt.show()
```



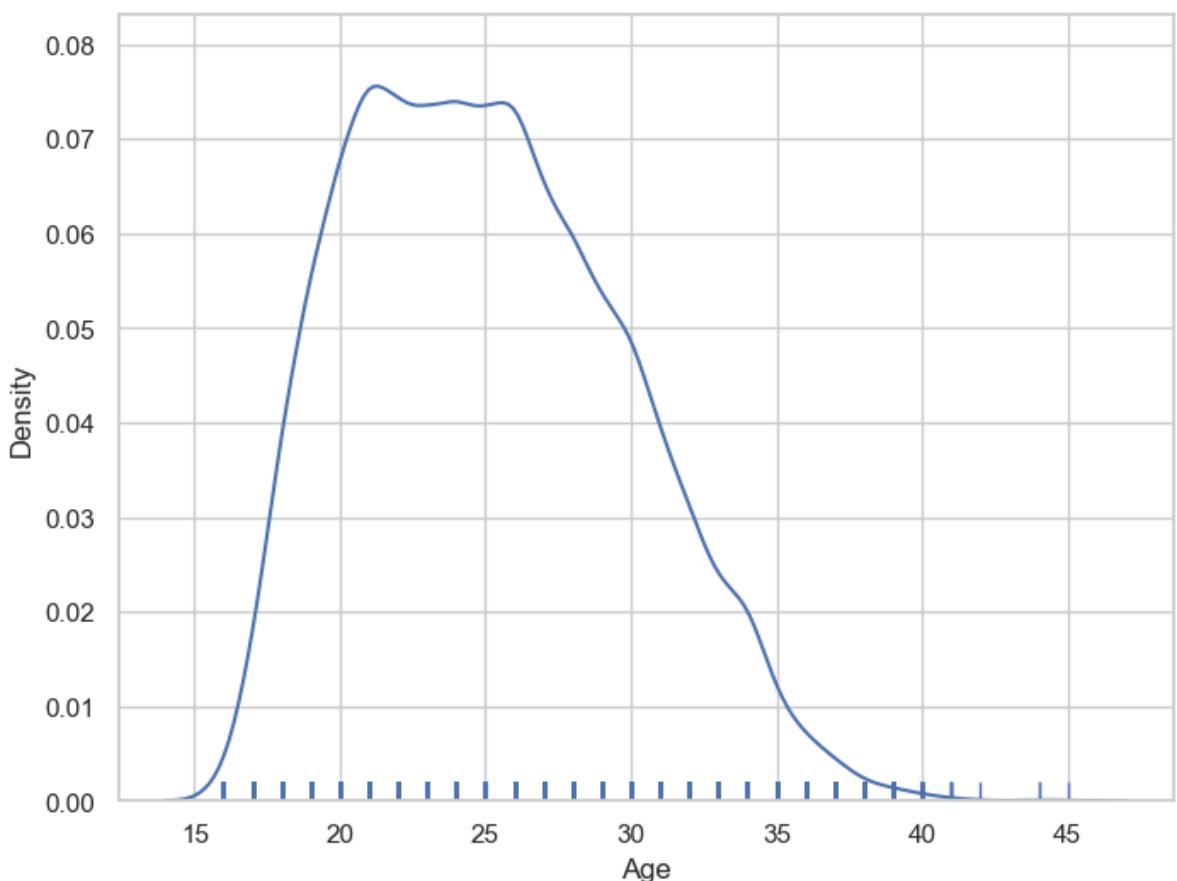
```
In [22]: f, ax = plt.subplots(figsize=(8,6))
x = fifa19['Age']
ax = sns.distplot(x, kde=False, rug=True, bins=10)
plt.show()
```



```
In [23]: f, ax = plt.subplots(figsize=(8,6))
x = fifa19['Age']
ax = sns.distplot(x, rug=True, bins=10)
plt.show()
```



```
In [24]: f, ax = plt.subplots(figsize=(8,6))
x = fifa19['Age']
ax = sns.distplot(x, hist=False, rug = True, bins=10)
plt.show()
```



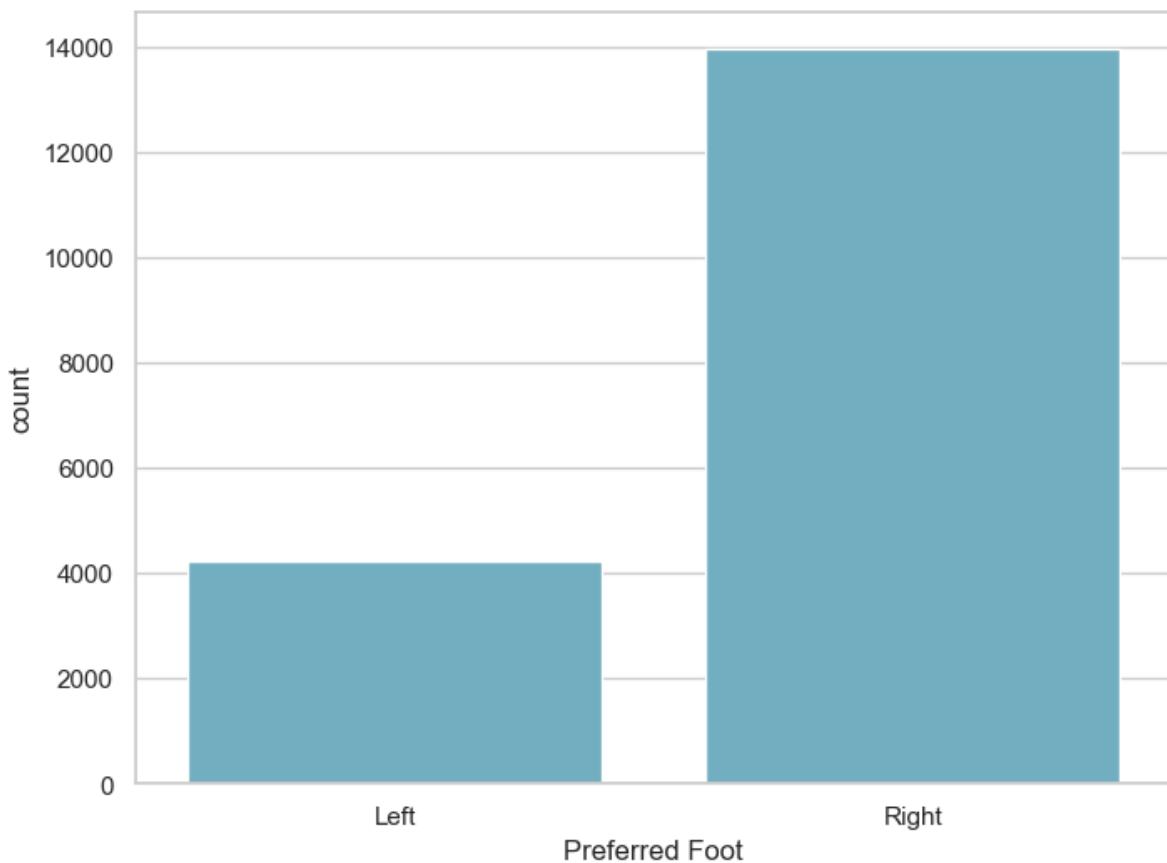
```
In [25]: fifa19['Preferred Foot'].nunique()
```

```
Out[25]: 2
```

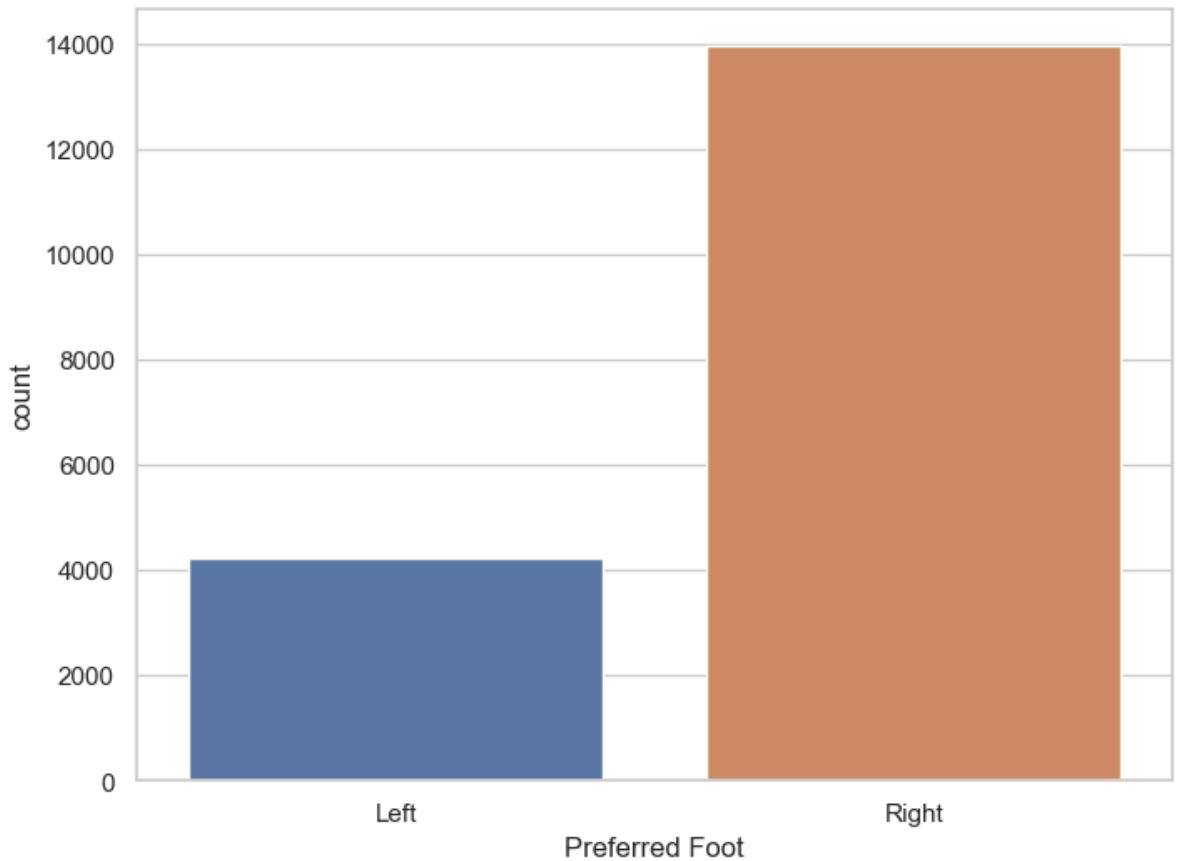
```
In [26]: fifa19['Preferred Foot'].value_counts()
```

```
Out[26]: Right    13948  
Left      4211  
Name: Preferred Foot, dtype: int64
```

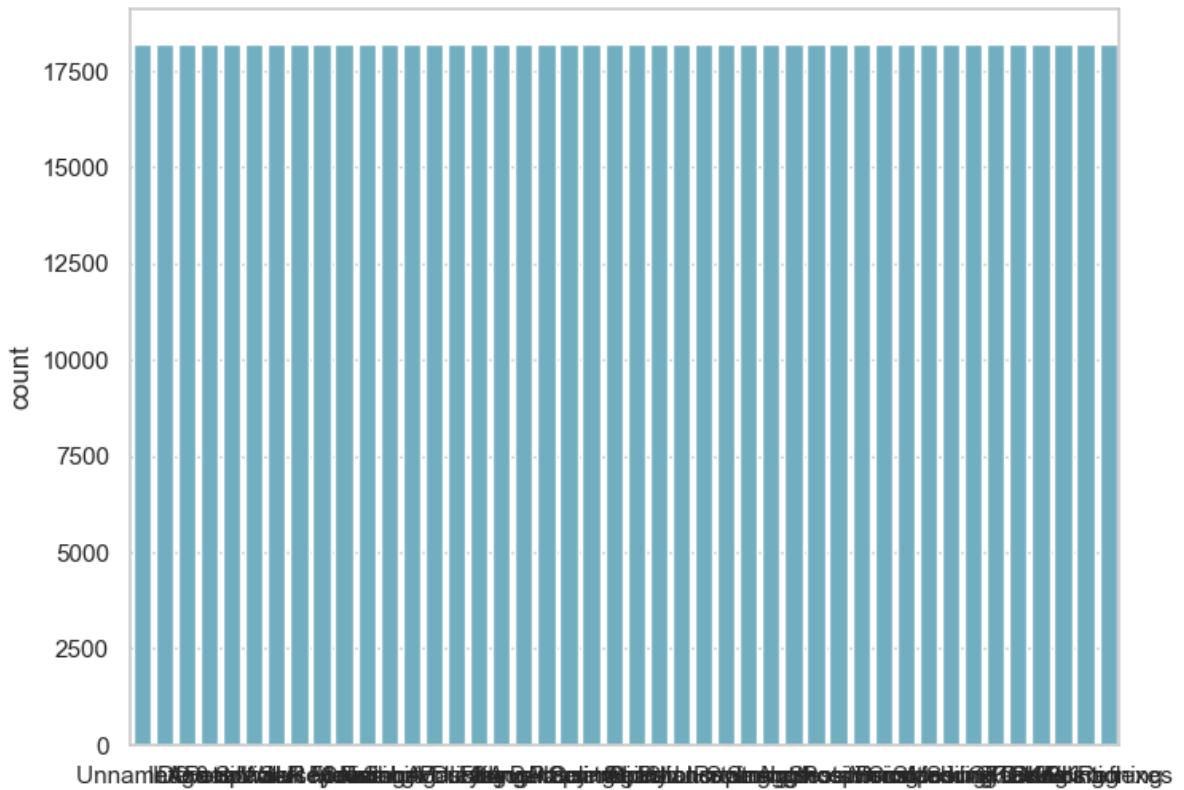
```
In [27]: f, ax = plt.subplots(figsize=(8, 6))  
sns.countplot(x="Preferred Foot", data=fifa19, color="c")  
plt.show()
```



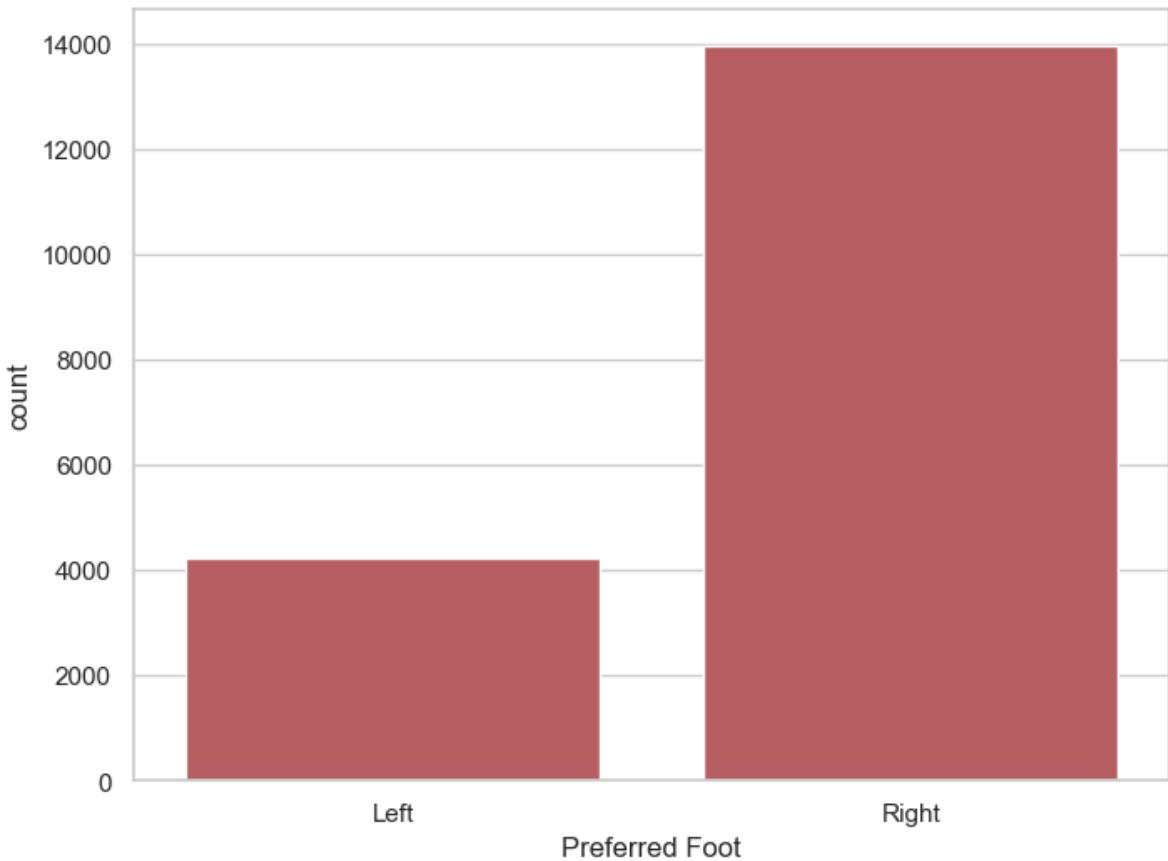
```
In [28]: f, ax = plt.subplots(figsize=(8, 6))  
sns.countplot(x="Preferred Foot", data=fifa19,)  
plt.show()
```



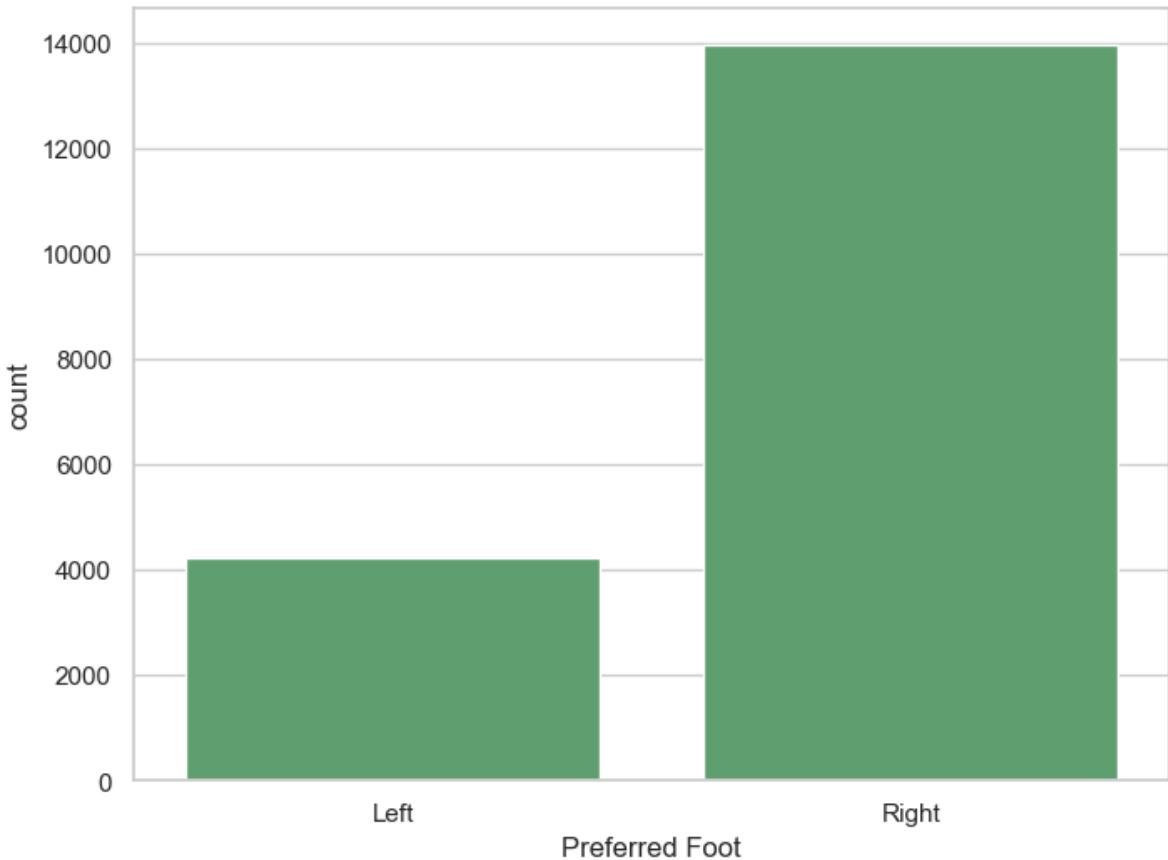
```
In [29]: f, ax = plt.subplots(figsize=(8, 6))
sns.countplot( data=fifa19, color="c")
plt.show()
```



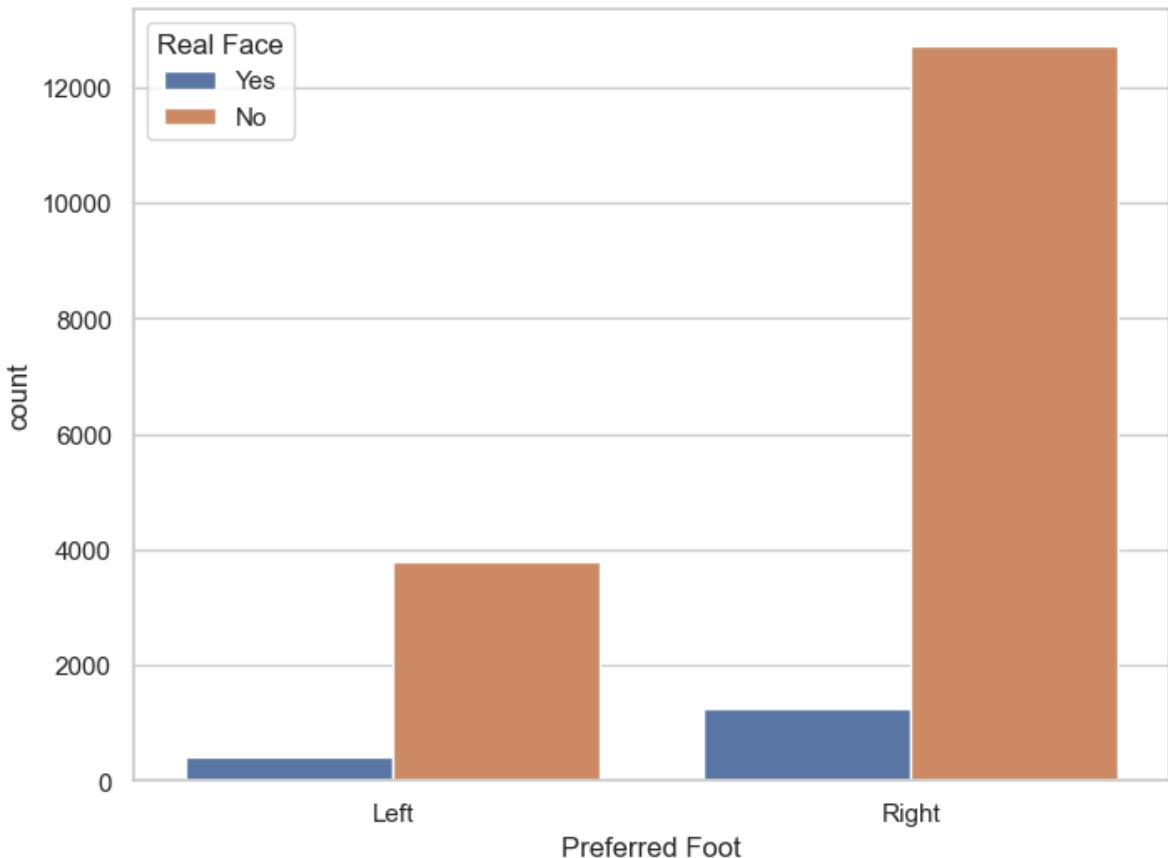
```
In [30]: f, ax = plt.subplots(figsize=(8, 6))
sns.countplot(x="Preferred Foot", data=fifa19, color="r")
plt.show()
```



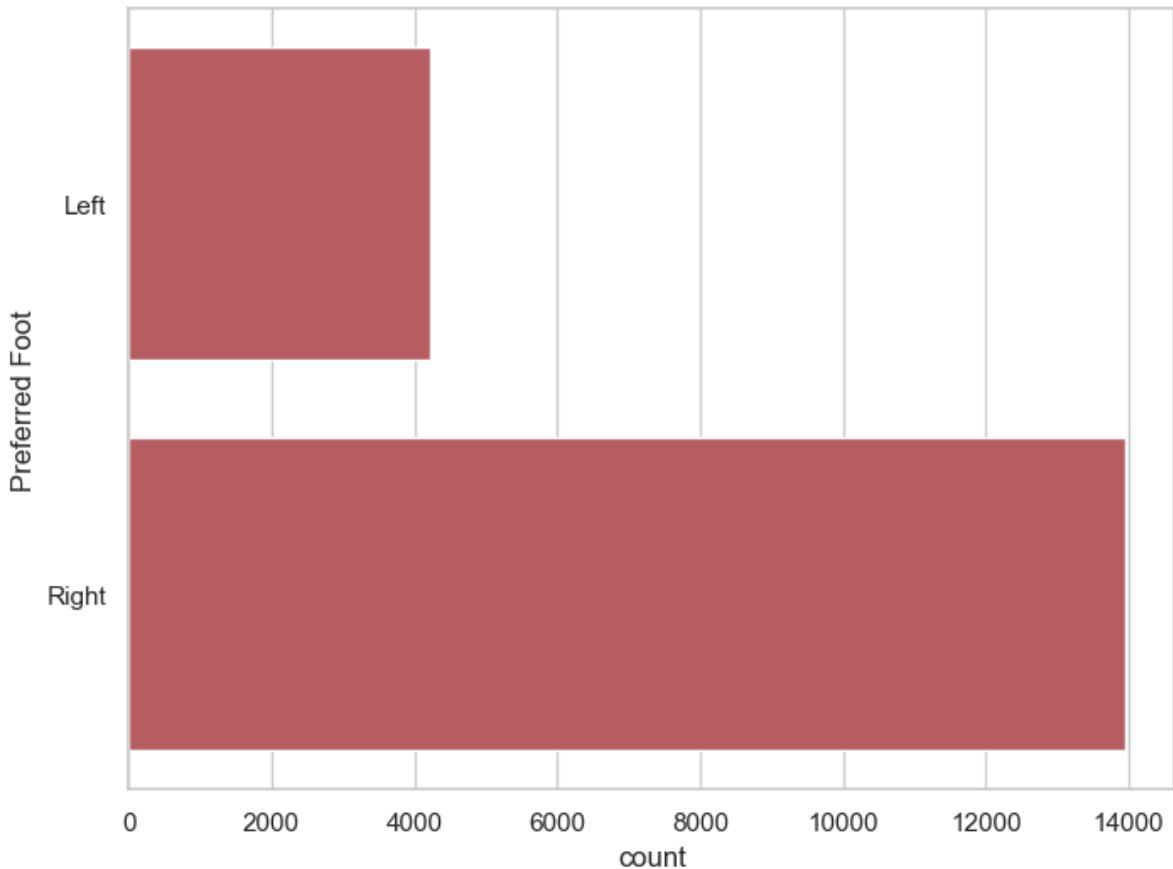
```
In [31]: f, ax = plt.subplots(figsize=(8, 6))
sns.countplot(x="Preferred Foot", data=fifa19, color="g")
plt.show()
```



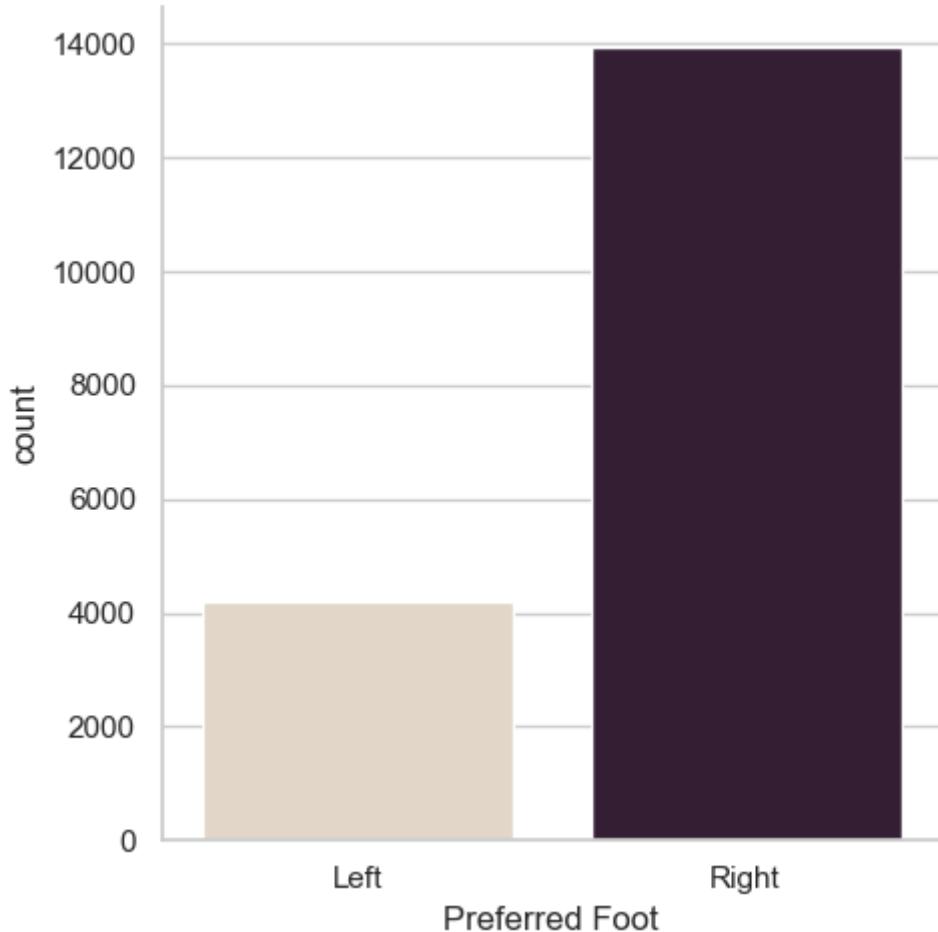
```
In [32]: f, ax = plt.subplots(figsize=(8,6))
sns.countplot(x="Preferred Foot", hue = "Real Face", data = fifa19)
plt.show()
```



```
In [33]: f,ax = plt.subplots(figsize=(8,6))
sns.countplot(y="Preferred Foot",data=fifa19, color="r")
plt.show()
```



```
In [34]: g = sns.catplot(x="Preferred Foot", kind="count", palette="ch:.25", data=fifa19)
```



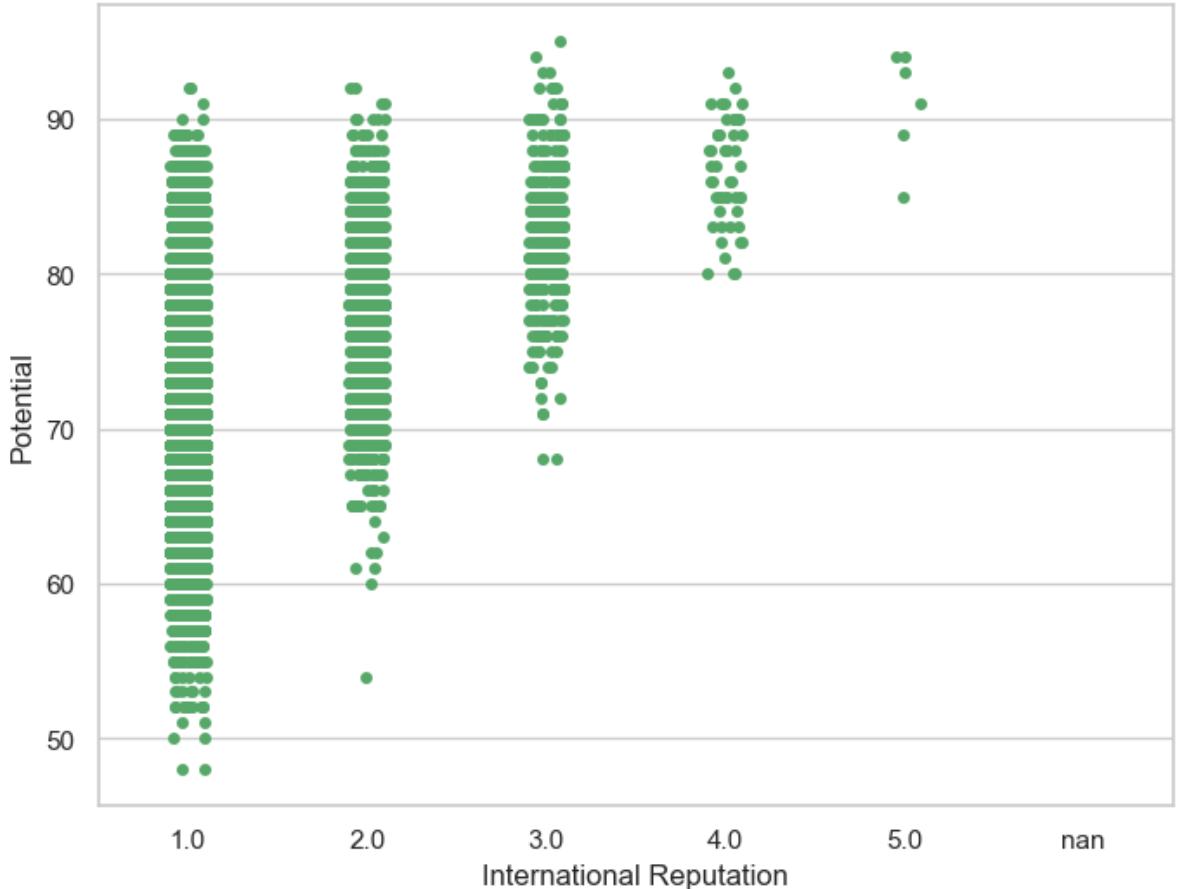
```
In [35]: fifa19['International Reputation'].nunique()
```

```
Out[35]: 5
```

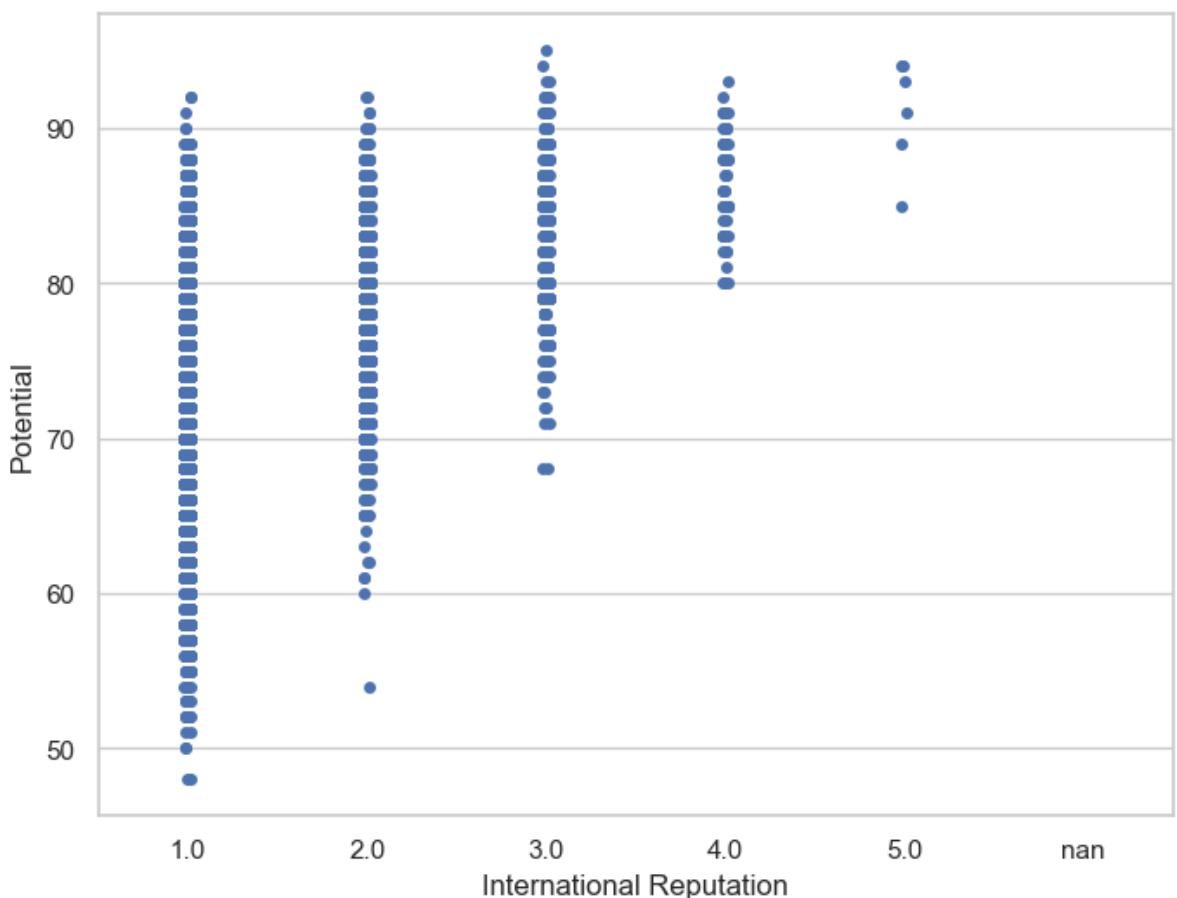
```
In [36]: fifa19['International Reputation'].value_counts()
```

```
Out[36]: 1.0    16532  
2.0    1261  
3.0     309  
4.0      51  
5.0      6  
Name: International Reputation, dtype: int64
```

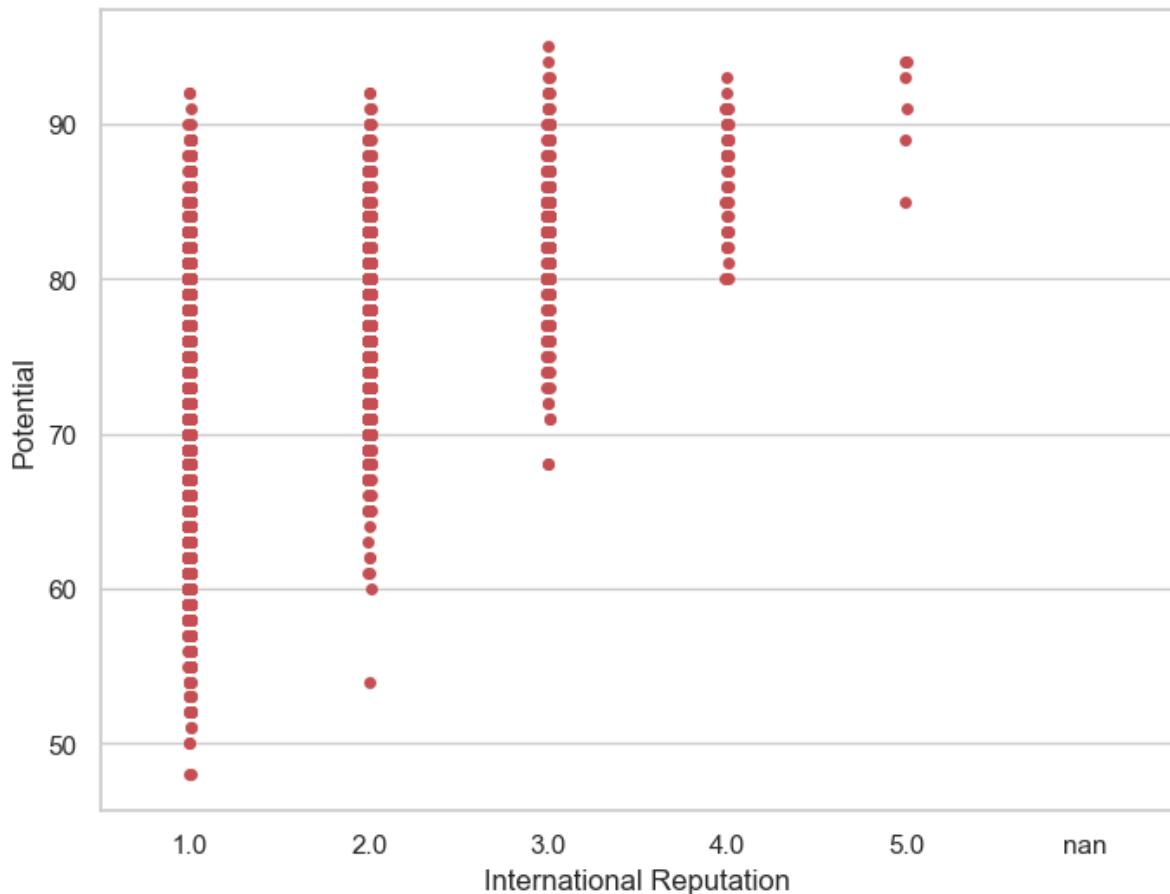
```
In [37]: f, ax = plt.subplots(figsize=(8,6))  
sns.stripplot(x="International Reputation",y="Potential",data=fifa19,color='g',)  
plt.show()
```



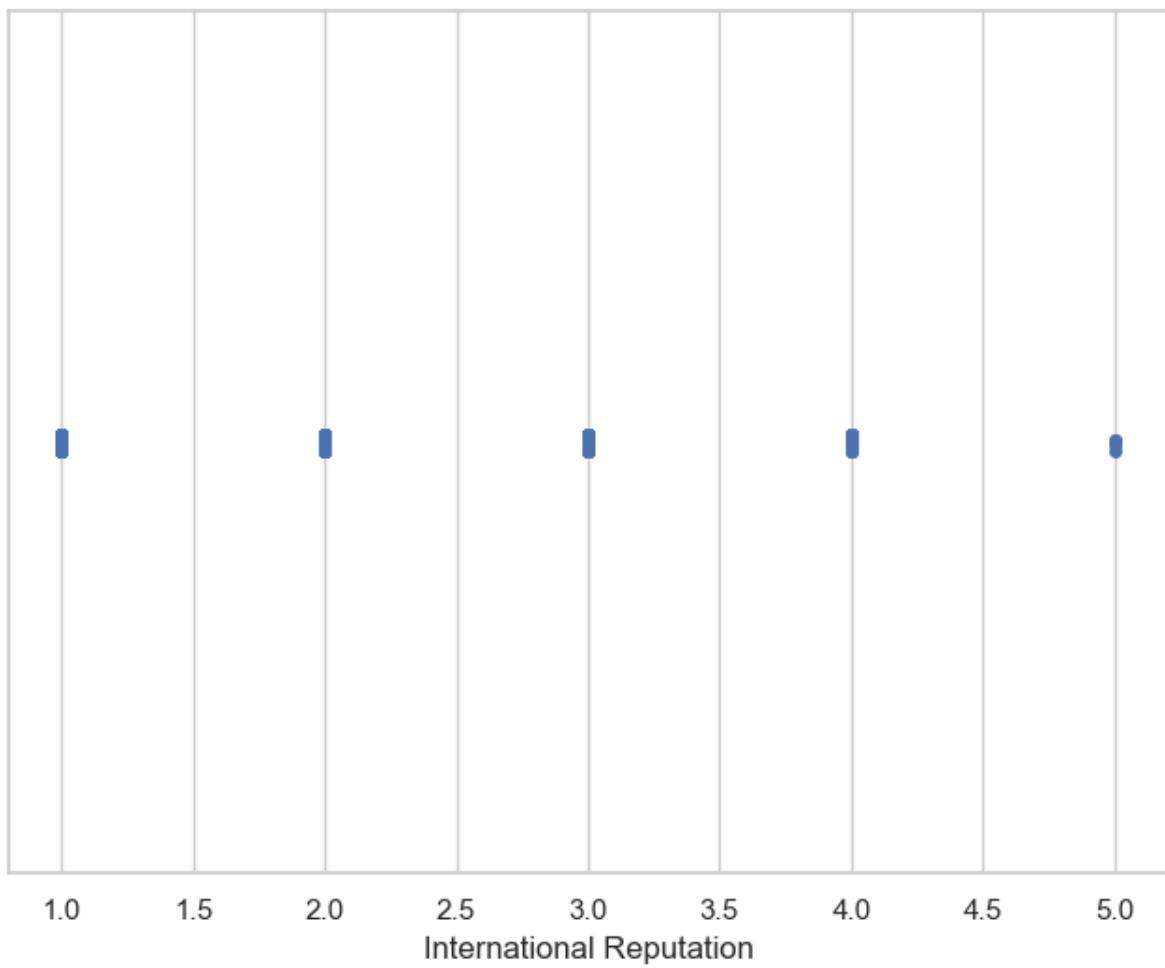
```
In [38]: f, ax = plt.subplots(figsize=(8, 6))
sns.stripplot(x="International Reputation", y="Potential", data=fifa19, jitter=0.02)
plt.show()
```



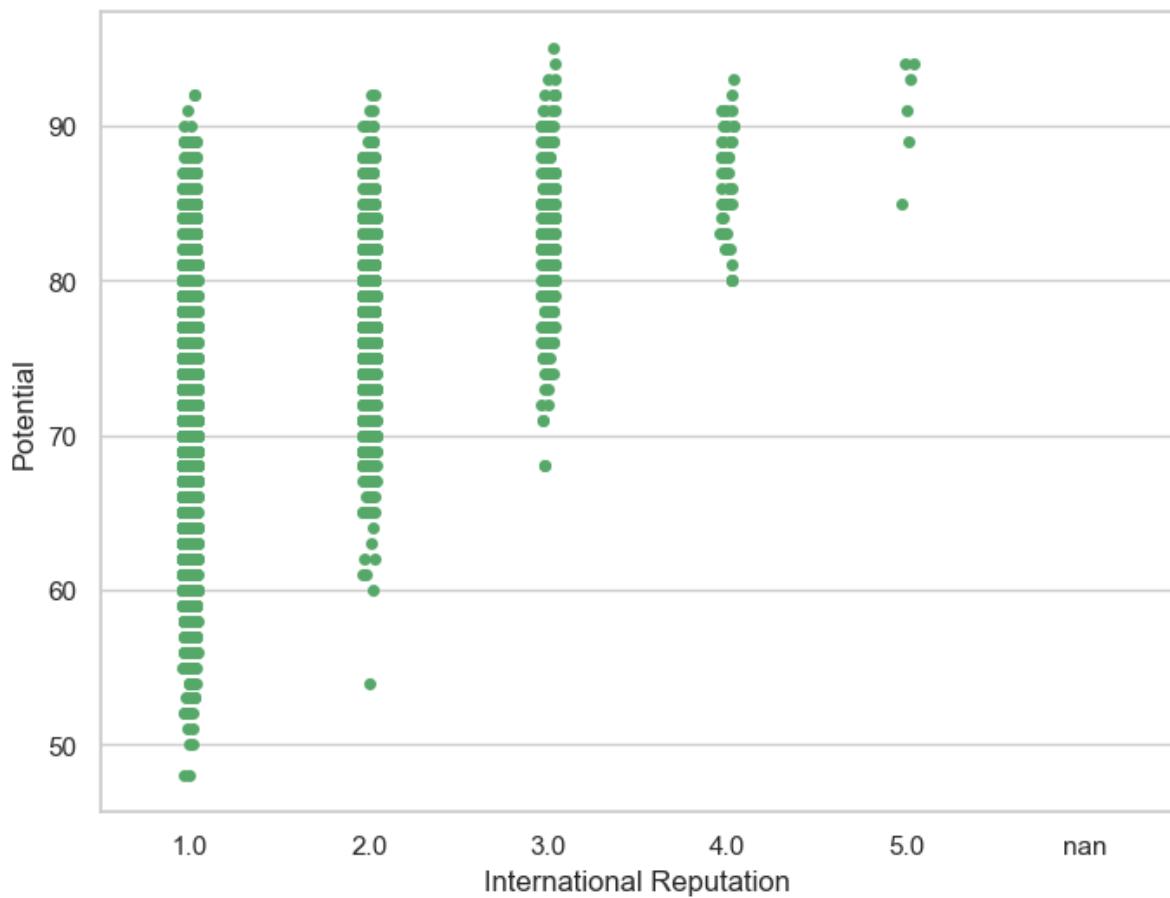
```
In [39]: f, ax = plt.subplots(figsize=(8, 6))
sns.stripplot(x="International Reputation", y="Potential", data=fifa19, jitter=0.01)
plt.show()
```



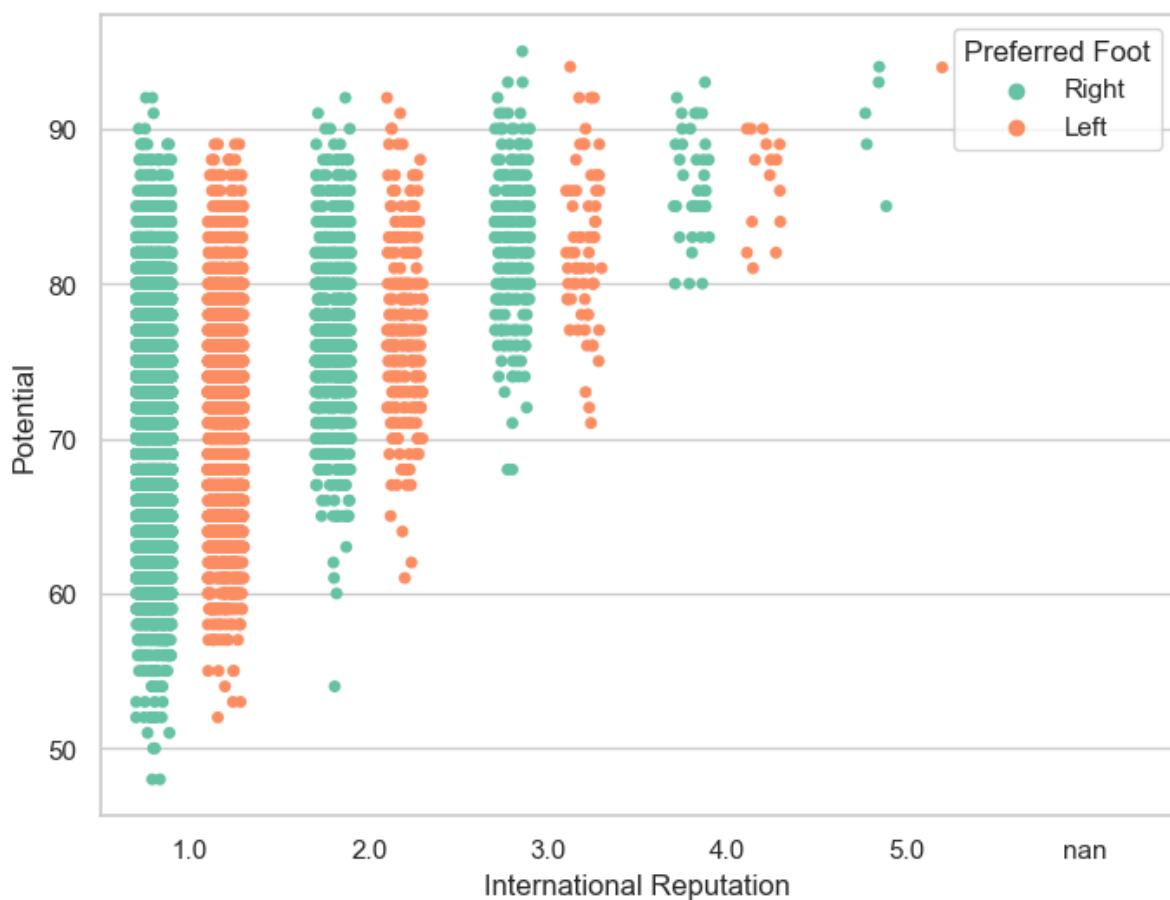
```
In [40]: f, ax = plt.subplots(figsize=(8, 6))
sns.stripplot(x="International Reputation", data=fifa19, jitter=0.01)
plt.show()
```



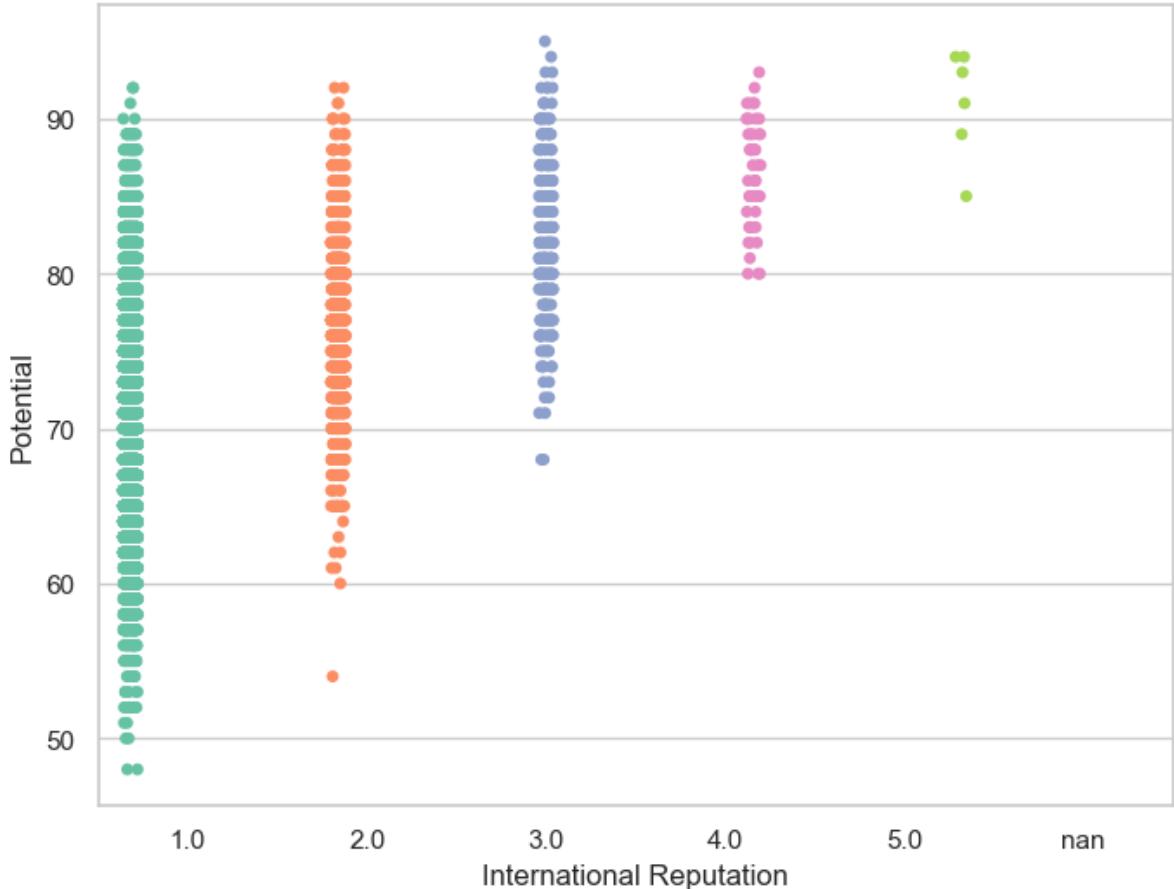
```
In [41]: f, ax = plt.subplots(figsize=(8, 6))
sns.stripplot(x="International Reputation", y="Potential", data=fifa19, jitter=0.04
plt.show()
```



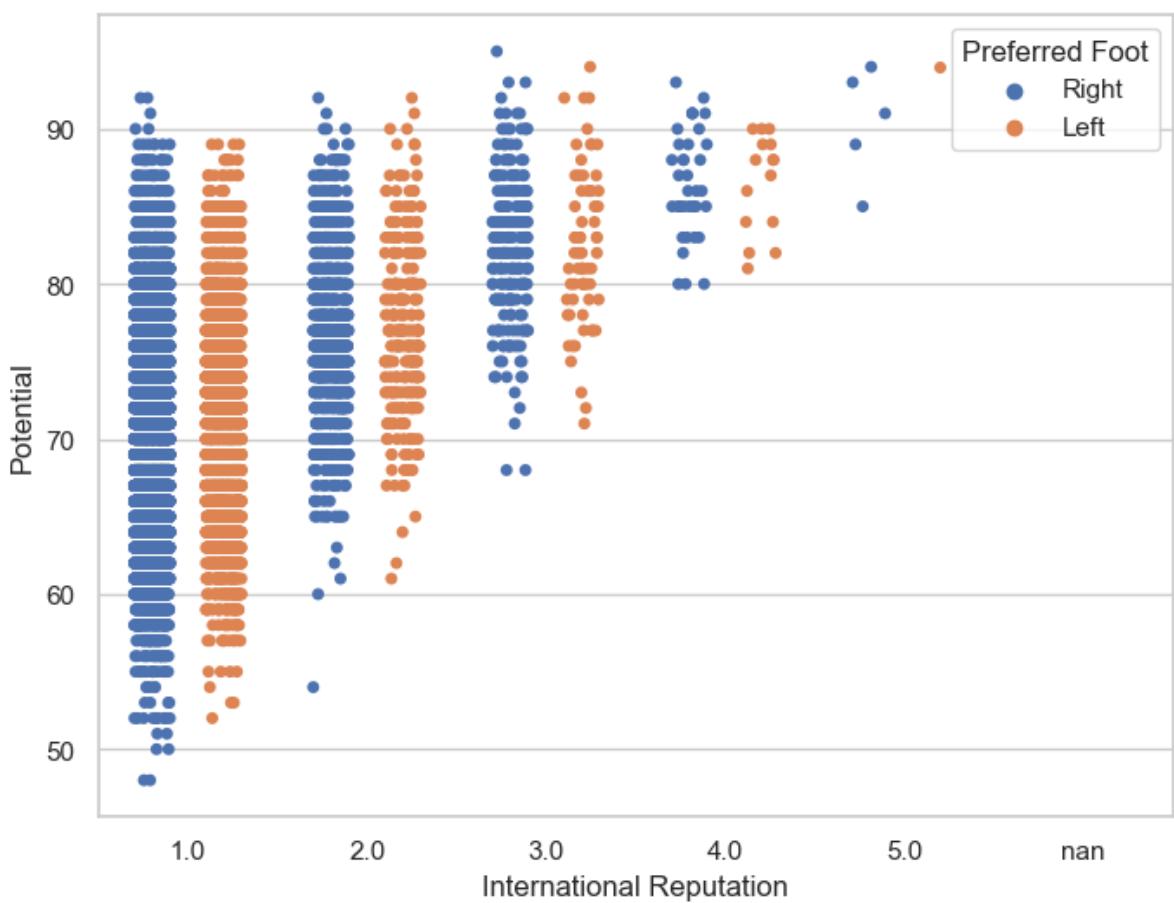
```
In [42]: f, ax = plt.subplots(figsize=(8, 6))
sns.stripplot(x="International Reputation", y="Potential", hue="Preferred Foot",
               data=fifa19, jitter=0.2, palette="Set2", dodge=True)
plt.show()
```



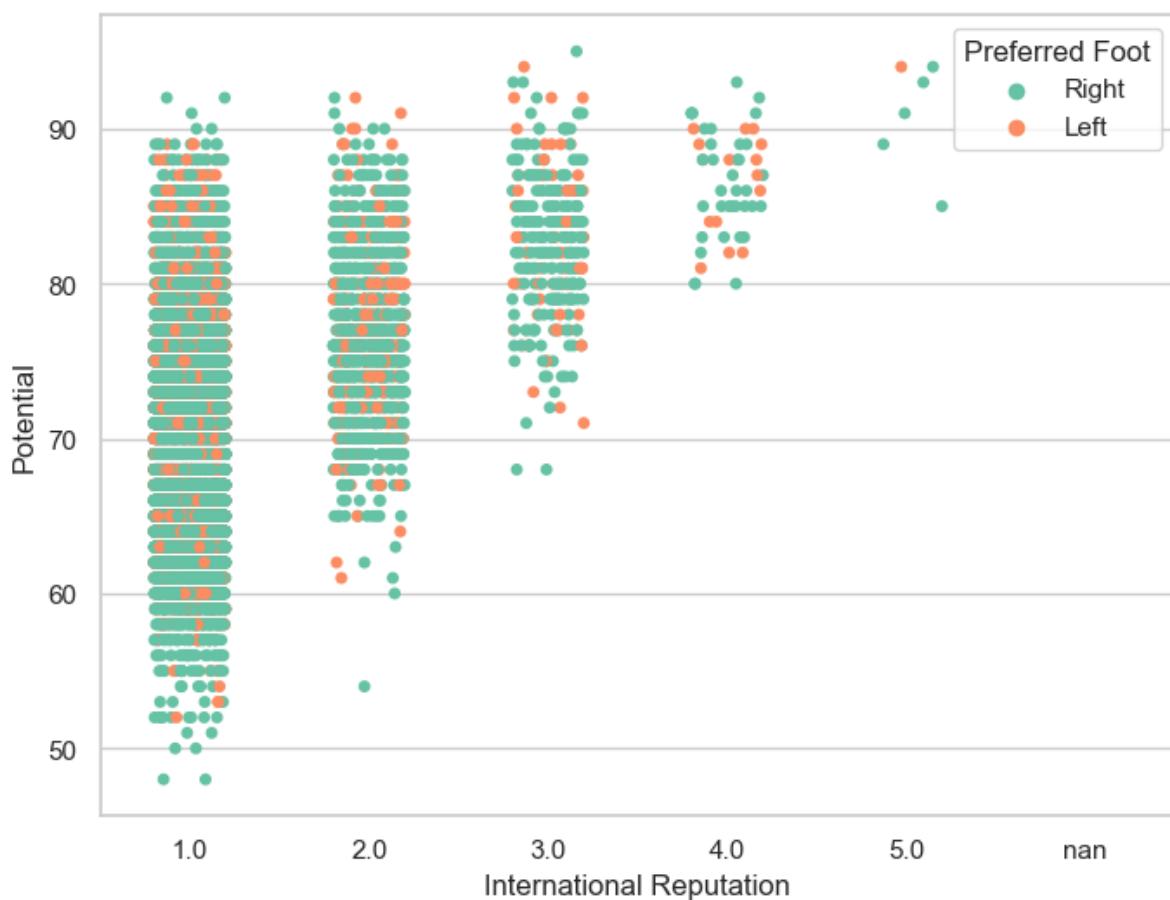
```
In [43]: f, ax = plt.subplots(figsize=(8, 6))
sns.stripplot(x="International Reputation", y="Potential",
               data=fifa19, jitter=0.2, palette="Set2", dodge=True)
plt.show()
```



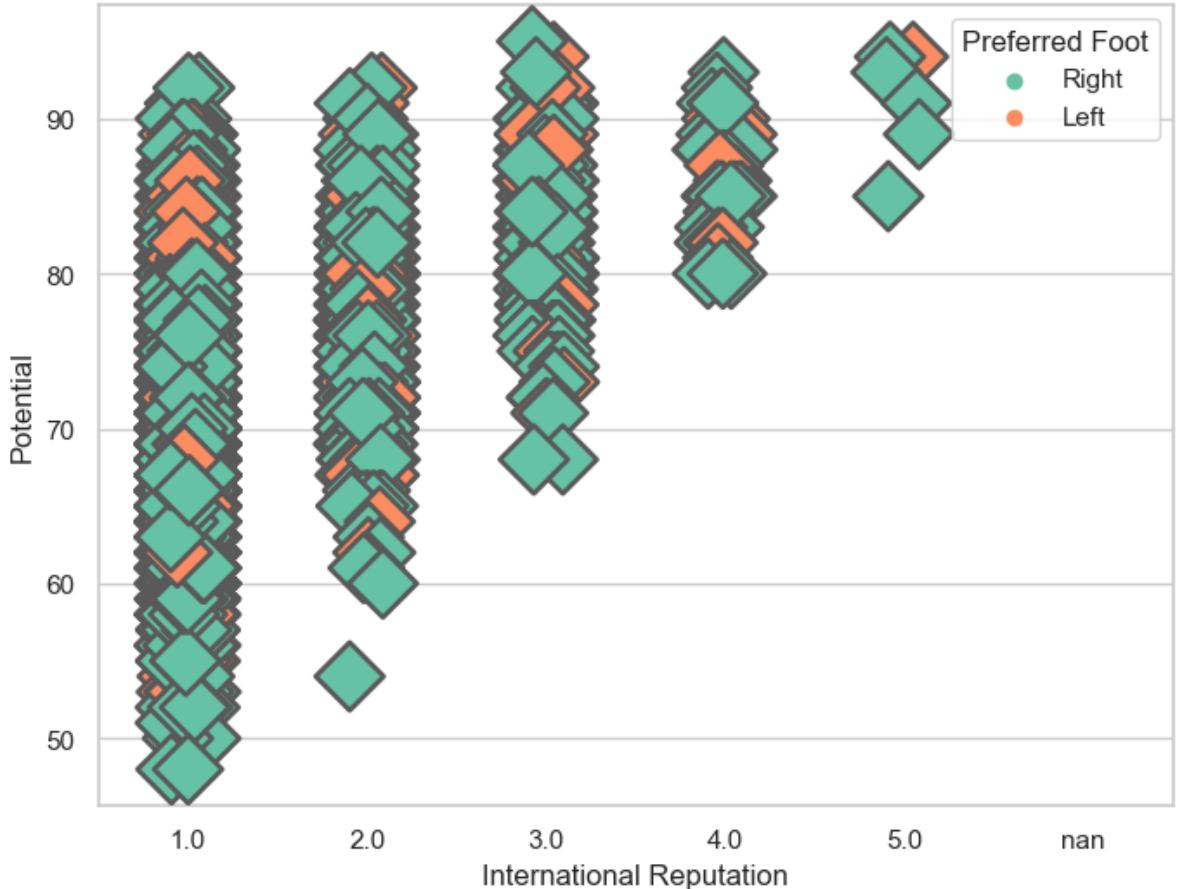
```
In [44]: f, ax = plt.subplots(figsize=(8, 6))
sns.stripplot(x="International Reputation", y="Potential", hue="Preferred Foot",
               data=fifa19, jitter=0.2, dodge=True)
plt.show()
```



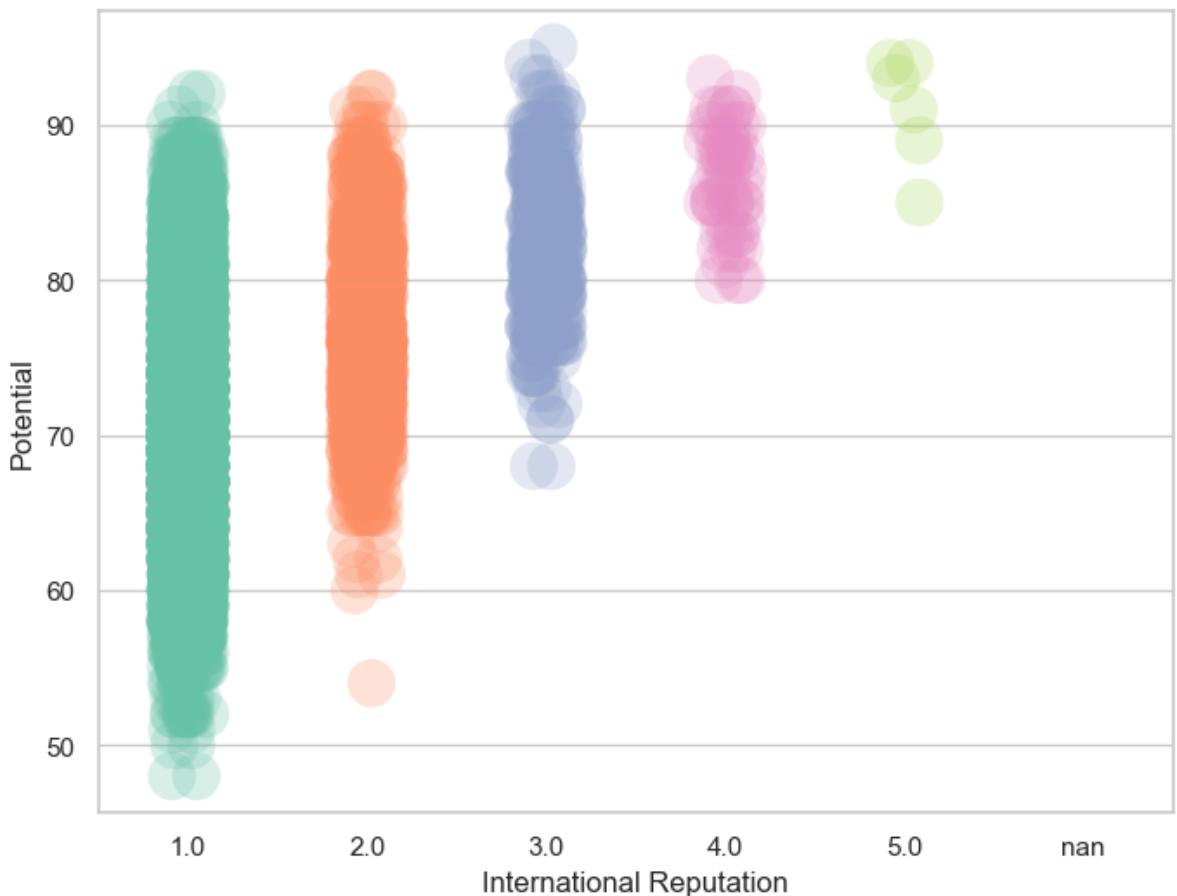
```
In [45]: f, ax = plt.subplots(figsize=(8, 6))
sns.stripplot(x="International Reputation", y="Potential", hue="Preferred Foot",
              data=fifa19, jitter=0.2, palette="Set2")
plt.show()
```



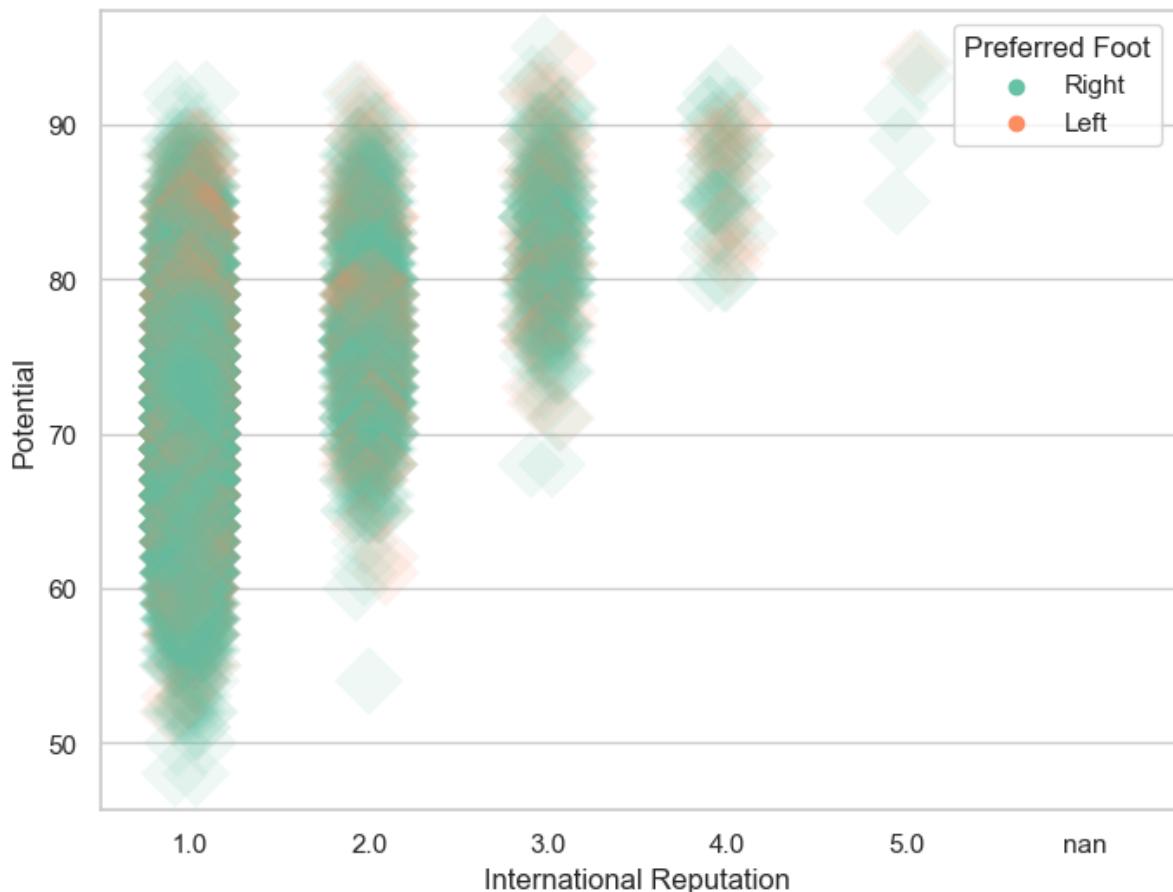
```
In [46]: f, ax = plt.subplots(figsize=(8, 6))
sns.stripplot(x="International Reputation", y="Potential", hue="Preferred Foot",
              data=fifa19, palette="Set2", size=20, marker="D",
              edgecolor="gray", linewidth=2)
plt.show()
```



```
In [47]: f, ax = plt.subplots(figsize=(8, 6))
sns.stripplot(x="International Reputation", y="Potential", legend="Preferred Foot",
               data=fifa19, palette="Set2", size=20,
               edgecolor="red", alpha=.25)
plt.show()
```



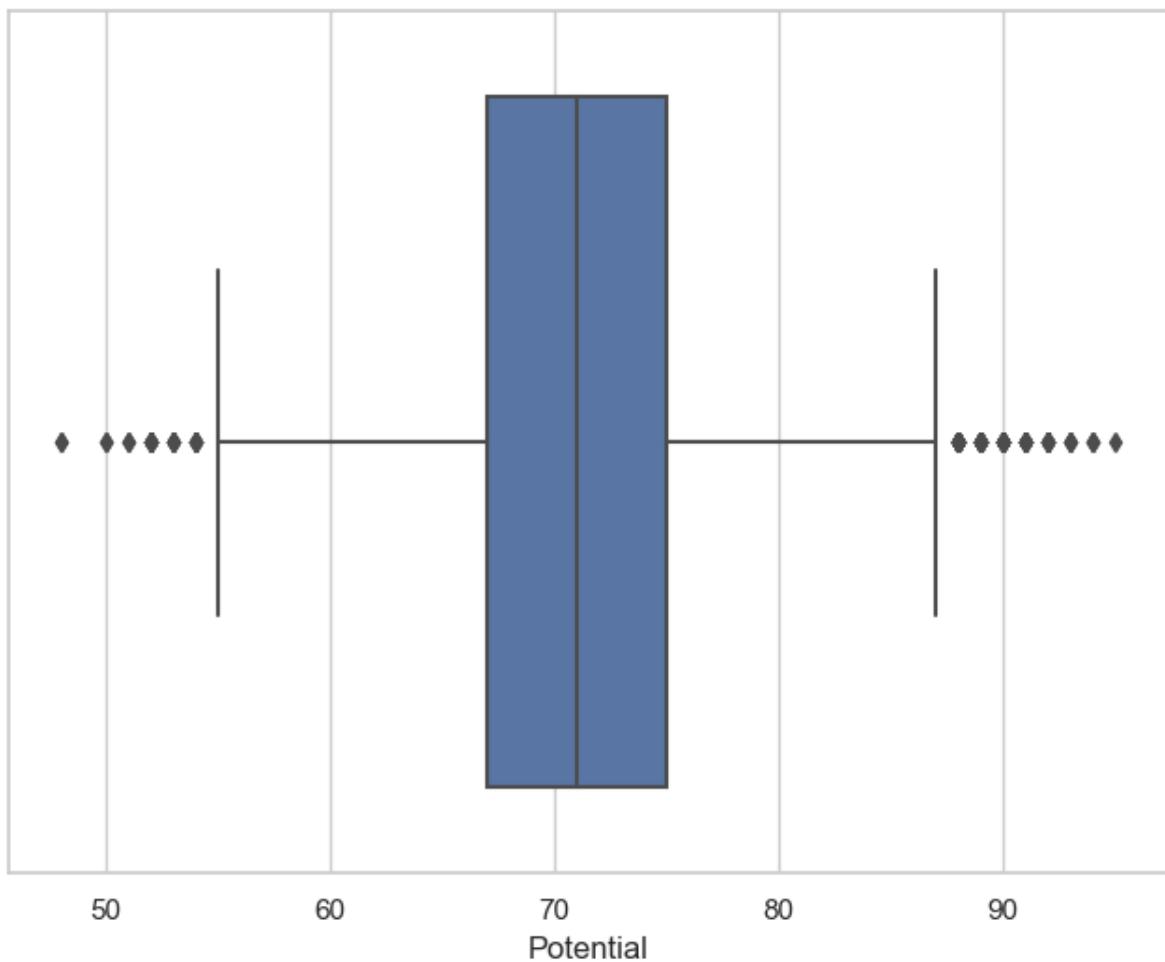
```
In [48]: f, ax = plt.subplots(figsize=(8, 6))
sns.stripplot(x="International Reputation", y="Potential", hue="Preferred Foot",
               data=fifa19, palette="Set2", size=20, marker="D",
               edgecolor="gray", alpha=.1)
plt.show()
```



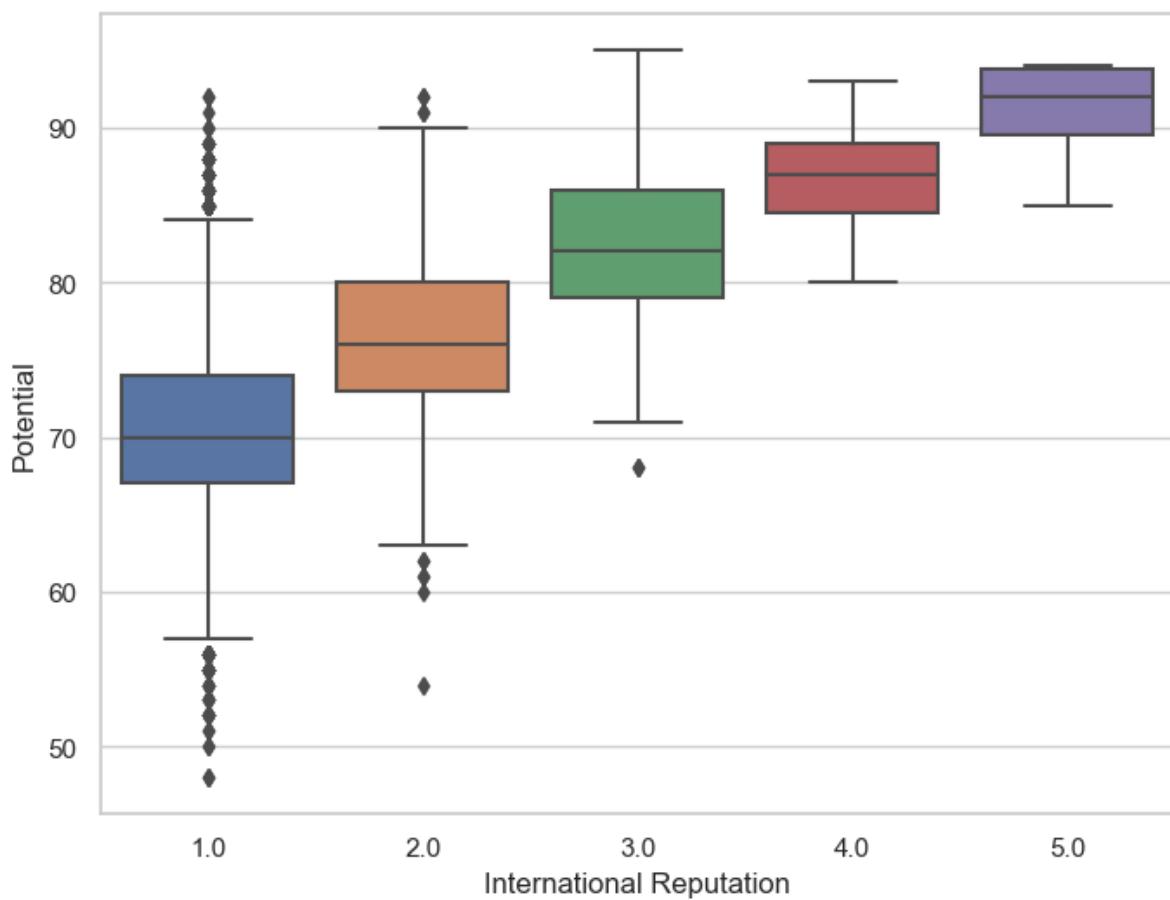
```
In [49]: fifa19['International Reputation'].unique()
```

```
Out[49]: array([ 5.,  4.,  3.,  2.,  1., nan])
```

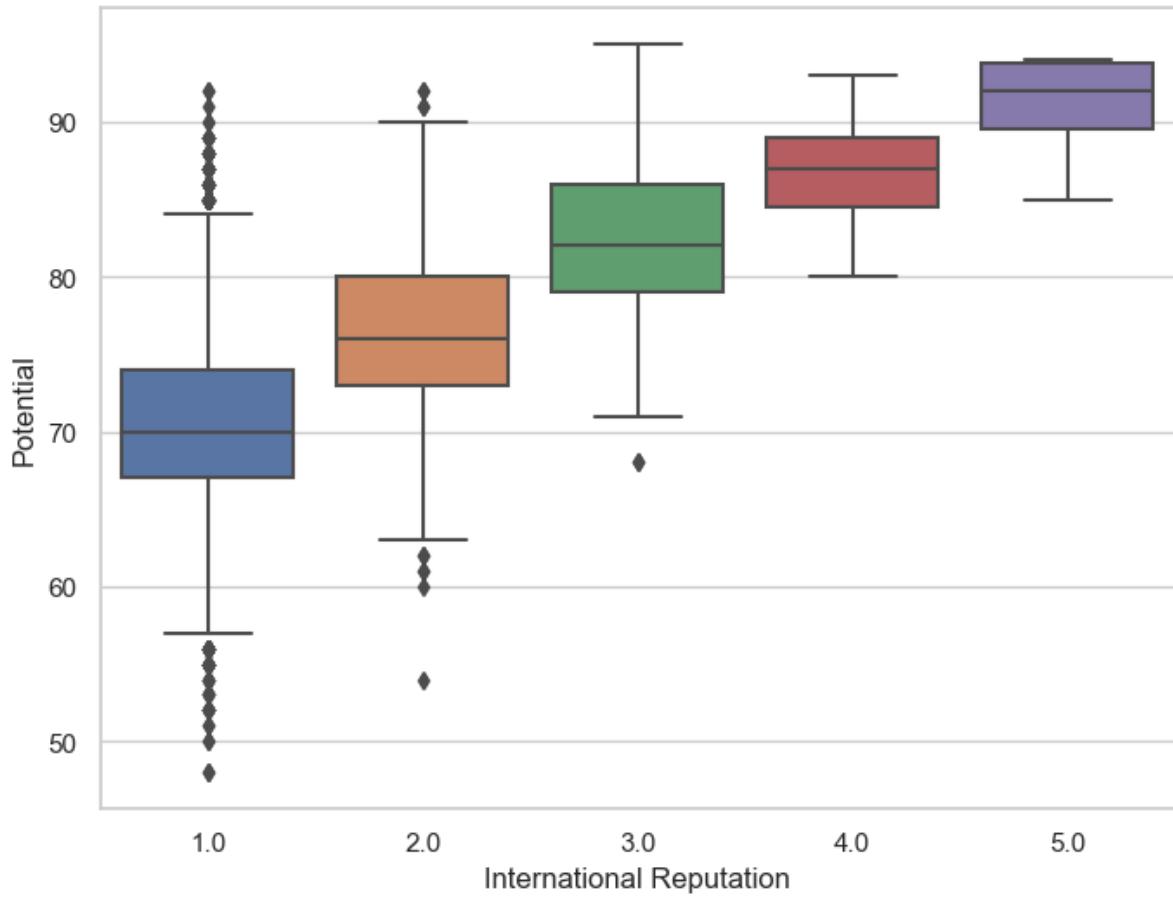
```
In [50]: f, ax = plt.subplots(figsize=(8,6))
sns.boxplot(x=fifa19["Potential"])
plt.show()
```



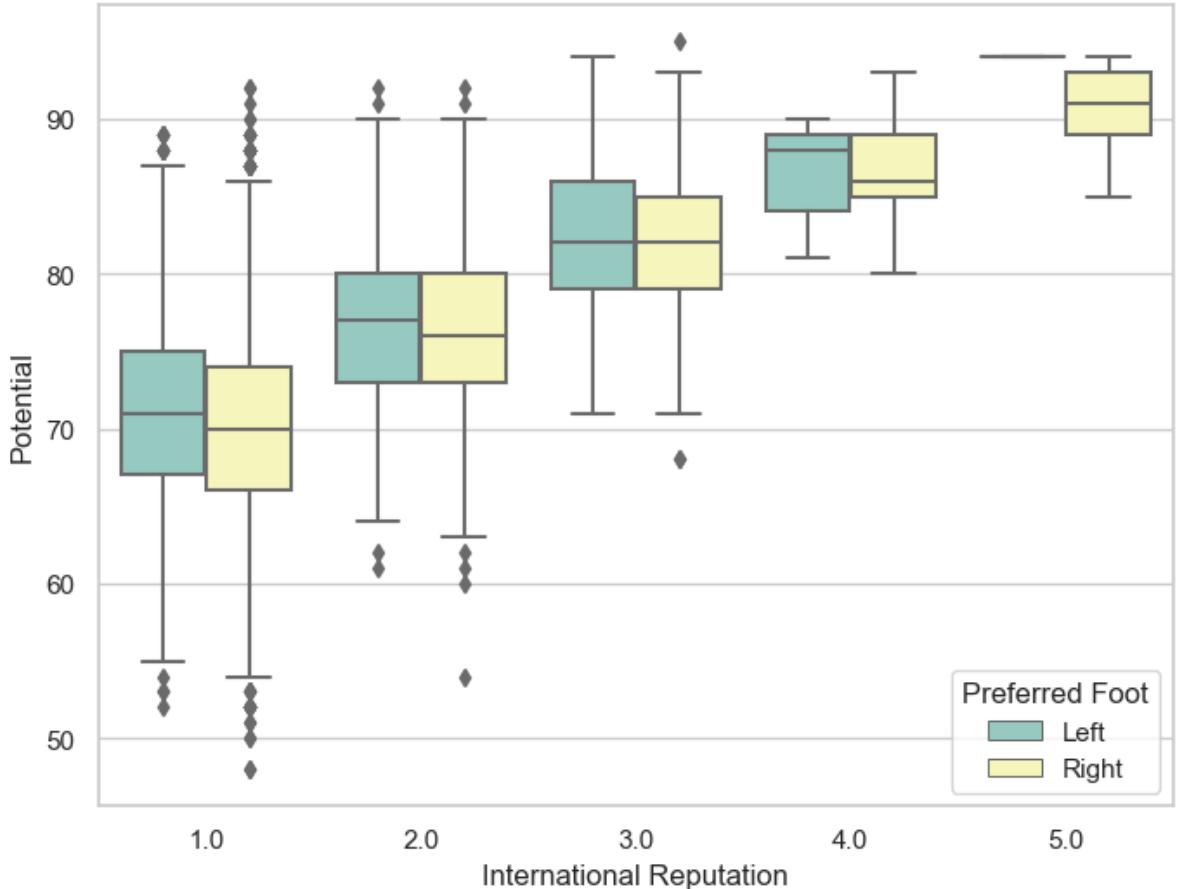
```
In [51]: ax = plt.subplots(figsize=(8, 6))
sns.boxplot(x="International Reputation", y="Potential", data=fifa19)
plt.show()
```



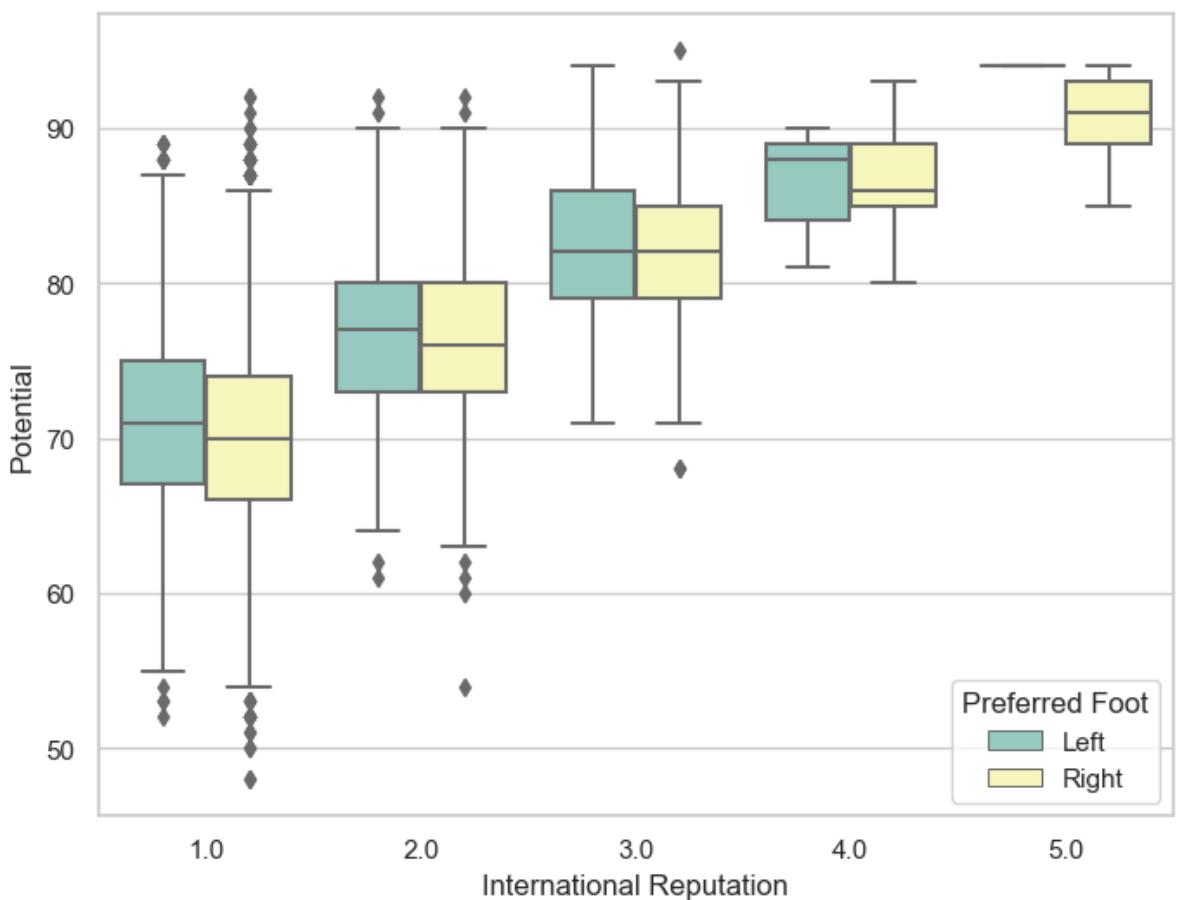
```
In [52]: f = plt.subplots(figsize=(8, 6))
sns.boxplot(x="International Reputation", y="Potential", data=fifa19)
plt.show()
```



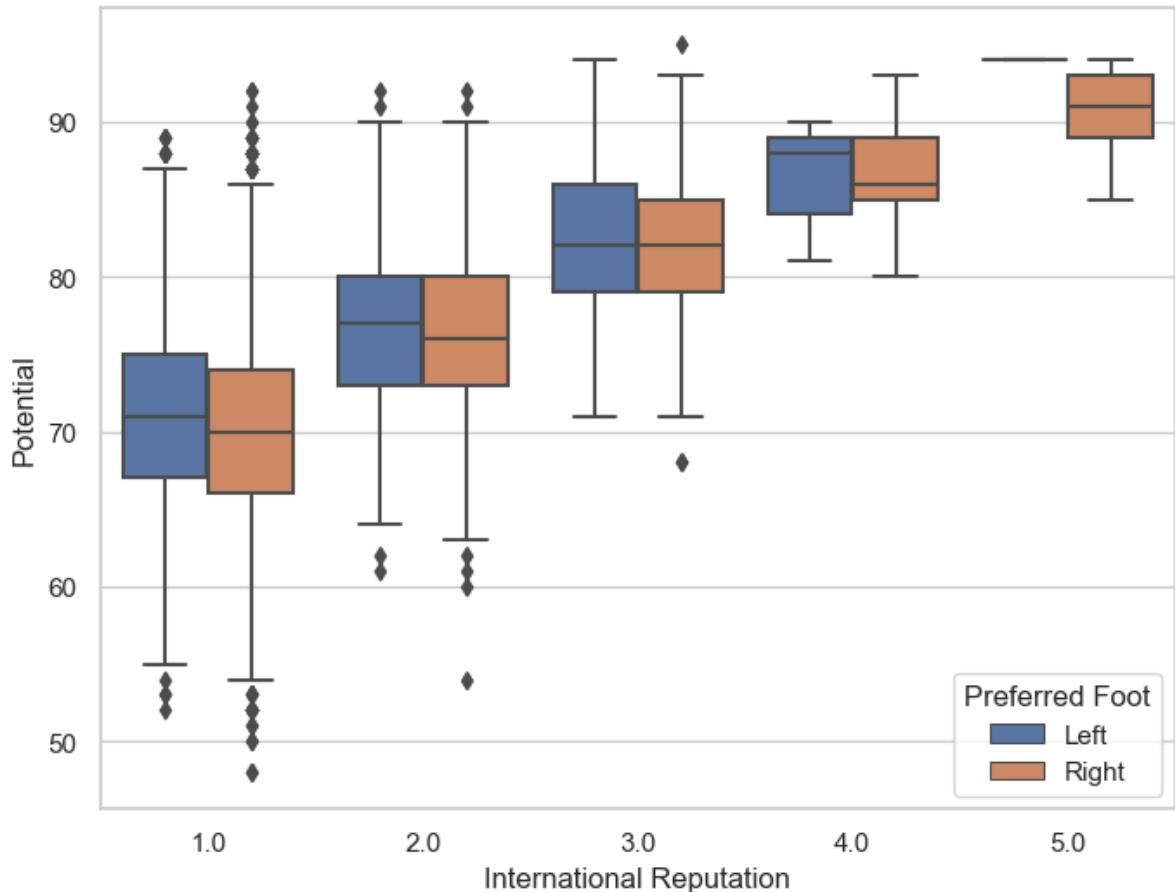
```
In [53]: ax = plt.subplots(figsize=(8, 6))
sns.boxplot(x="International Reputation", y="Potential", hue="Preferred Foot", data=fifa19)
plt.show()
```



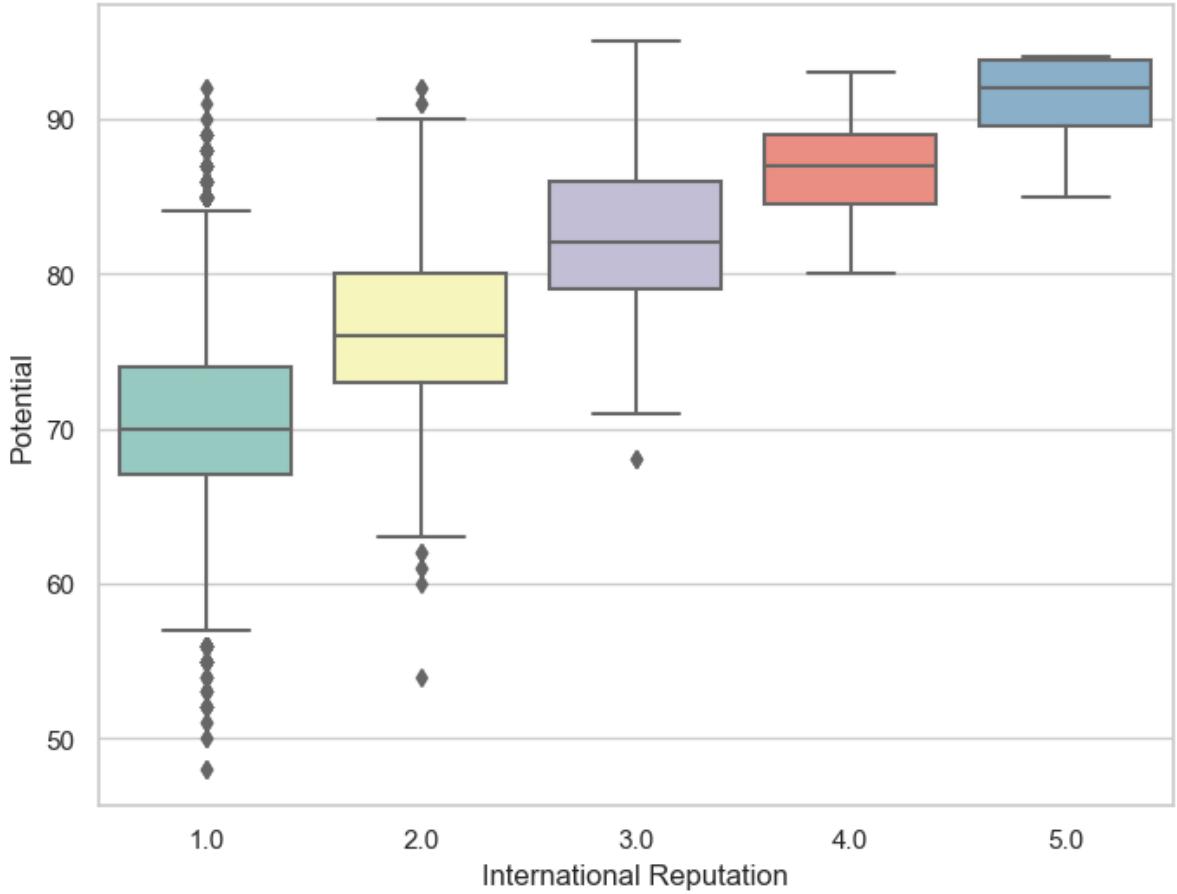
```
In [54]: f = plt.subplots(figsize=(8, 6))
sns.boxplot(x="International Reputation", y="Potential", hue="Preferred Foot", data=players)
plt.show()
```



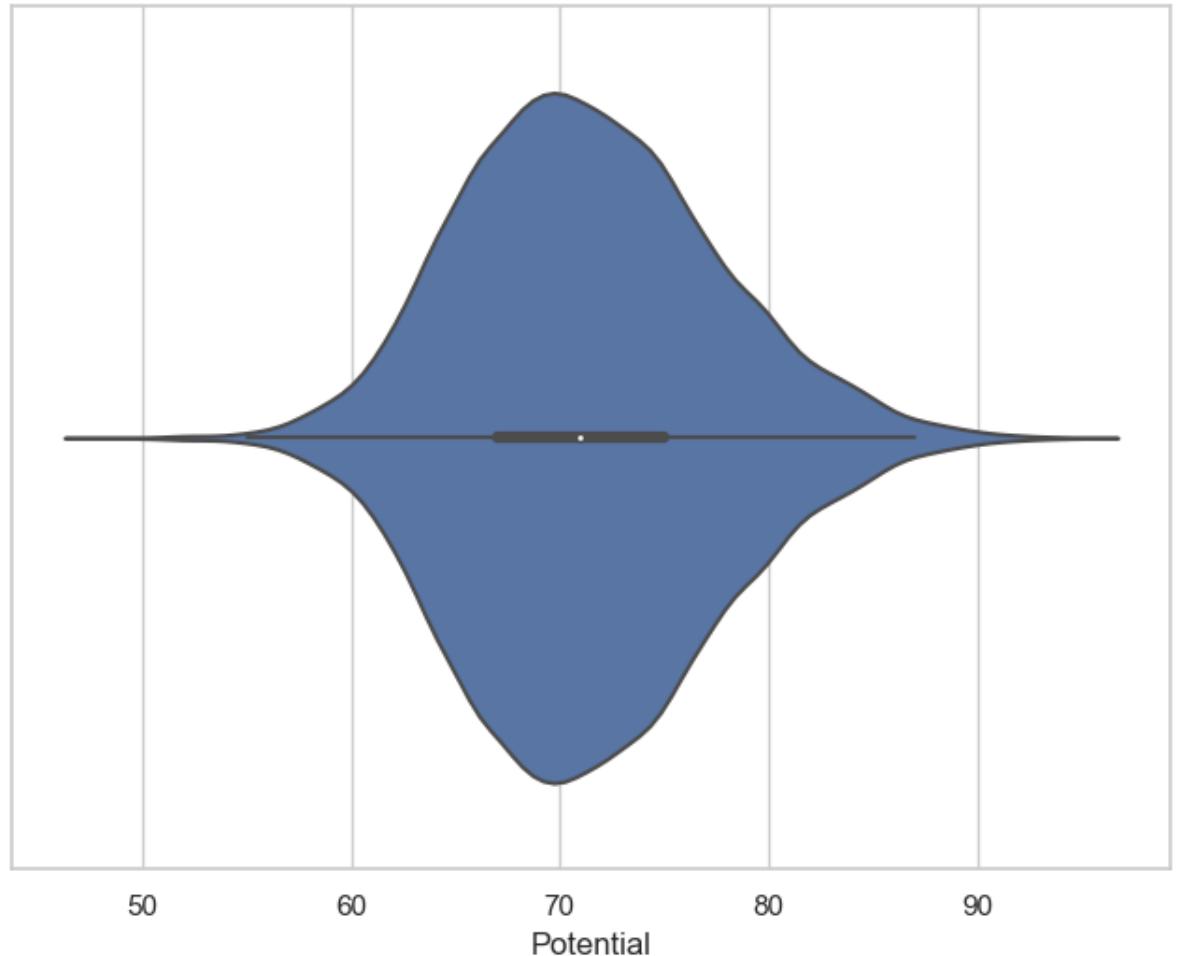
```
In [55]: f, ax = plt.subplots(figsize=(8, 6))
sns.boxplot(x="International Reputation", y="Potential", hue="Preferred Foot", data=fifa19)
plt.show()
```



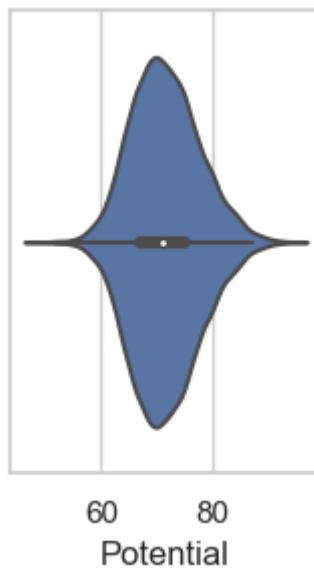
```
In [56]: f, ax = plt.subplots(figsize=(8, 6))
sns.boxplot(x="International Reputation", y="Potential", data=fifa19, palette="Set3")
plt.show()
```



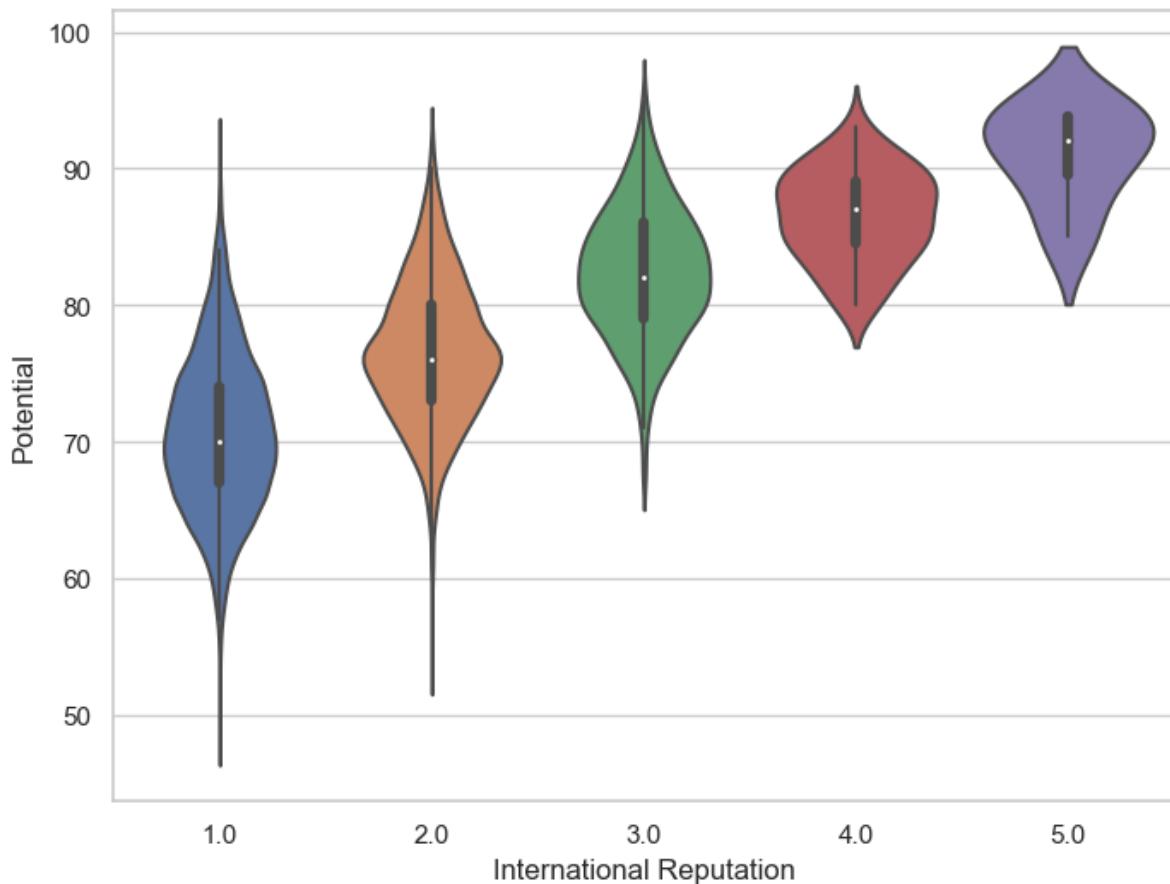
```
In [57]: f, ax = plt.subplots(figsize=(8, 6))
sns.violinplot(x=fifa19["Potential"])
plt.show()
```



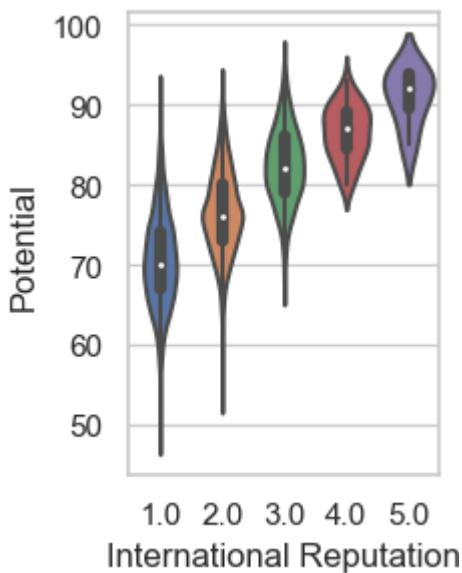
```
In [58]: f, ax = plt.subplots(figsize=(2,3))
sns.violinplot(x=fifa19["Potential"])
plt.show()
```



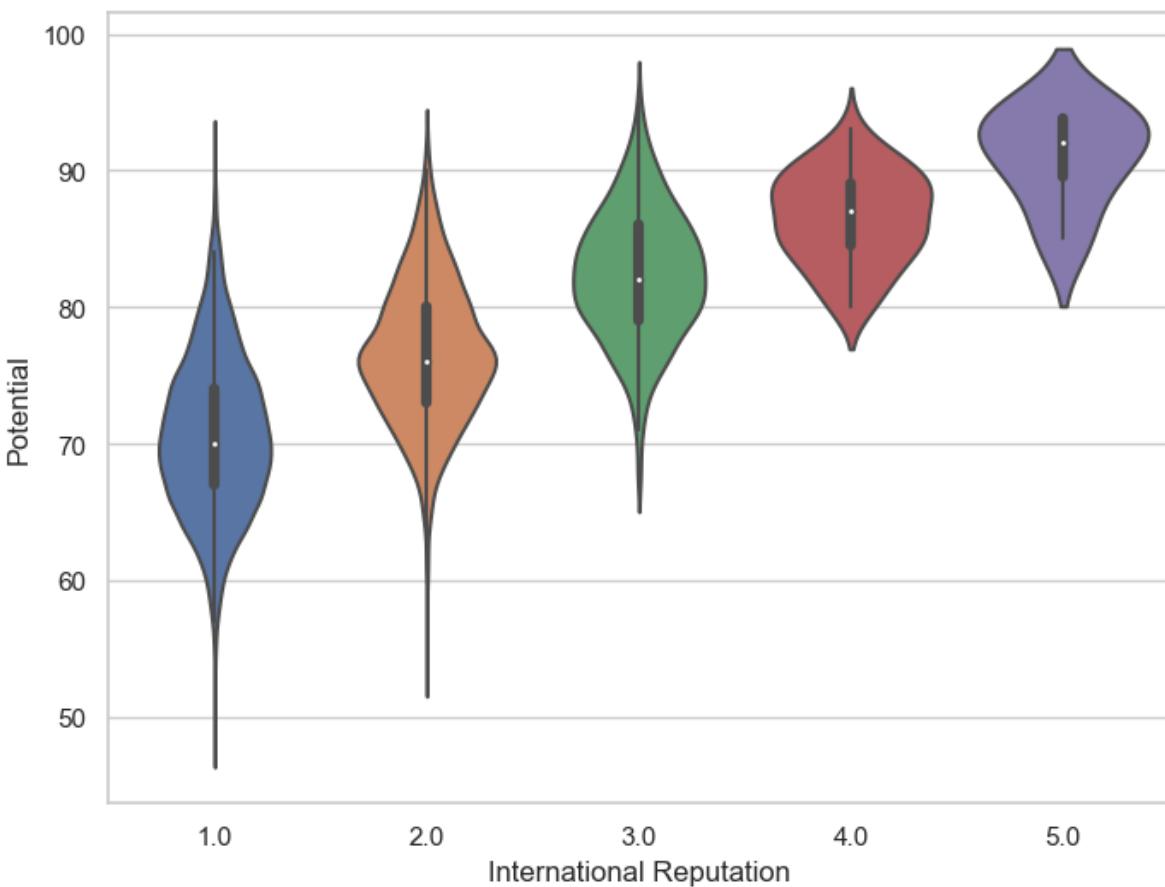
```
In [59]: f, ax = plt.subplots(figsize=(8, 6))
sns.violinplot(x="International Reputation", y="Potential", data=fifa19)
plt.show()
```



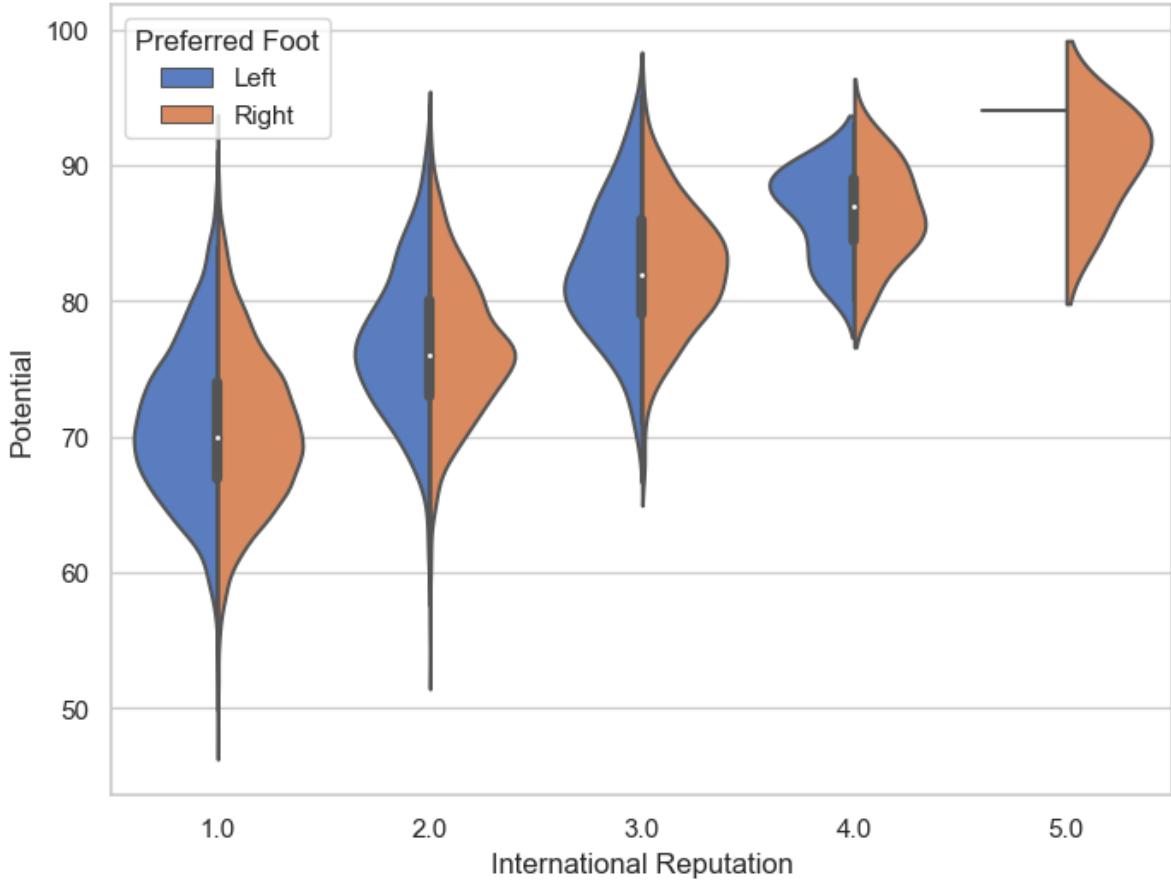
```
In [60]: f, ax = plt.subplots(figsize=(2, 3))
sns.violinplot(x="International Reputation", y="Potential", data=fifa19)
plt.show()
```



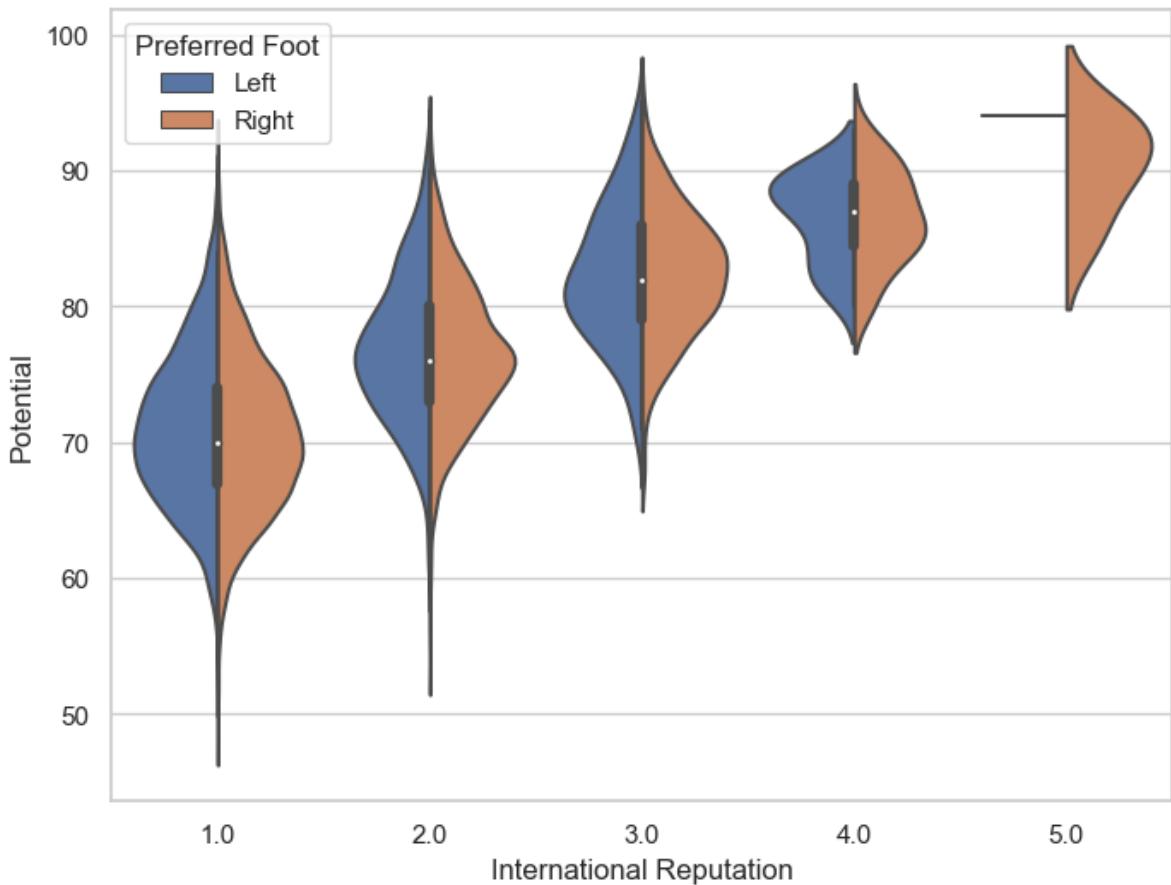
```
In [61]: f, ax = plt.subplots(figsize=(8, 6))
sns.violinplot(x="International Reputation", y="Potential", data=fifa19)
plt.show()
```



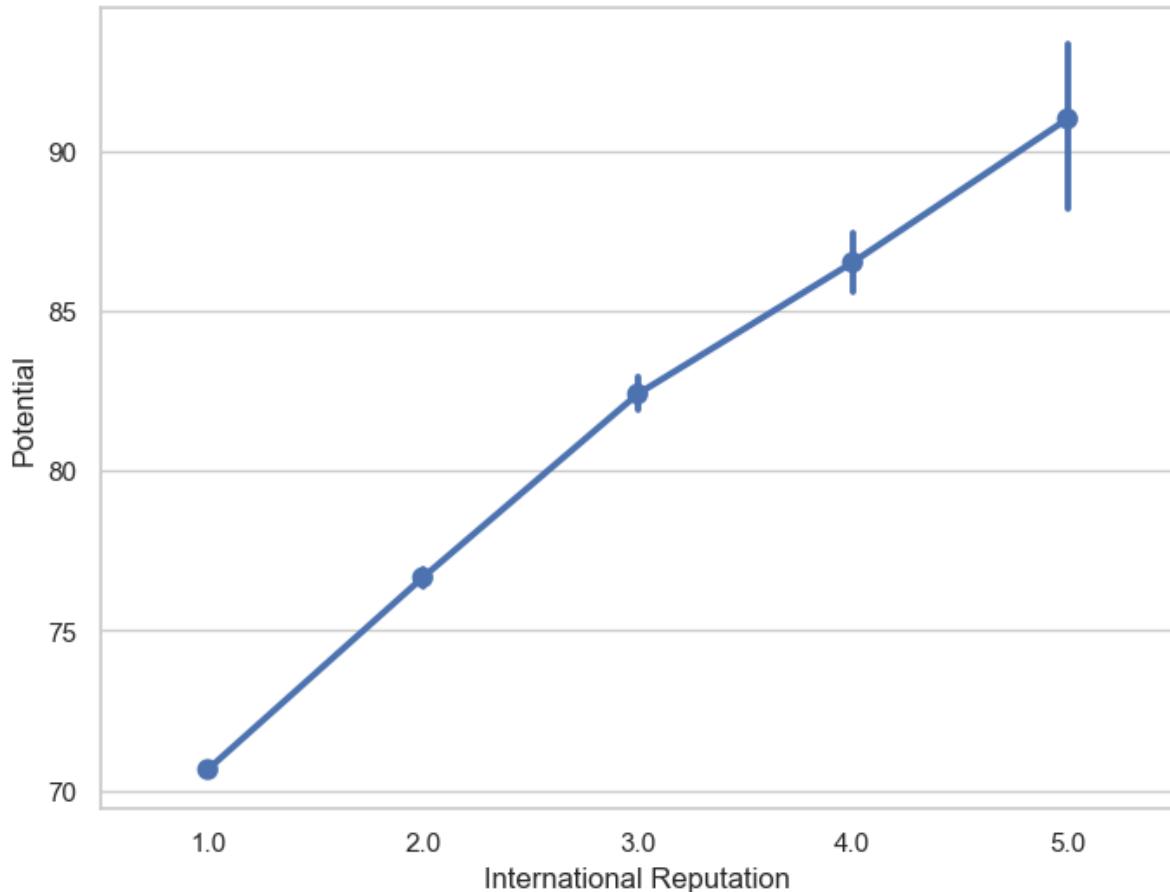
```
In [62]: f, ax = plt.subplots(figsize=(8, 6))
sns.violinplot(x="International Reputation", y="Potential", hue="Preferred Foot",
                data=fifa19, palette="muted", split=True)
plt.show()
```



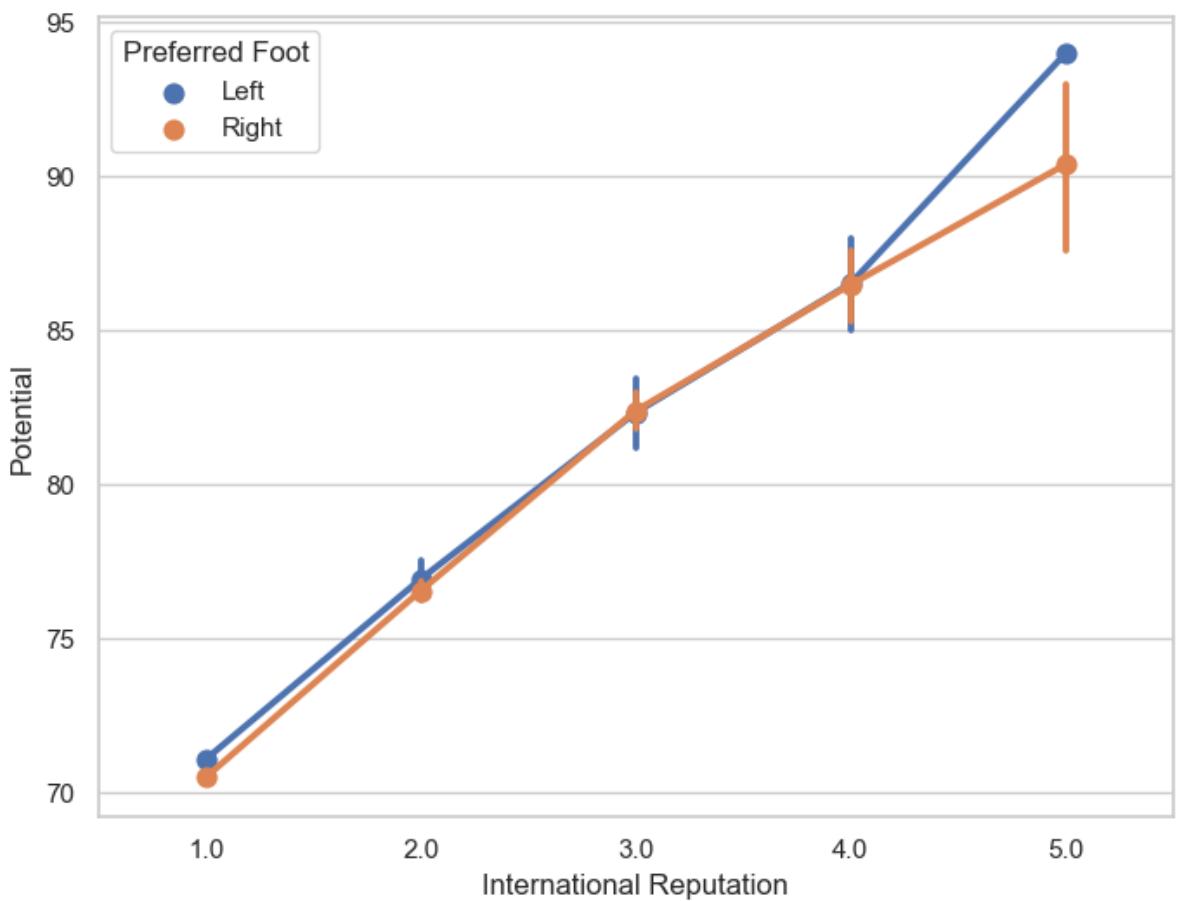
```
In [63]: f, ax = plt.subplots(figsize=(8, 6))
sns.violinplot(x="International Reputation", y="Potential", hue="Preferred Foot",
                data=fifa19, split=True)
plt.show()
```



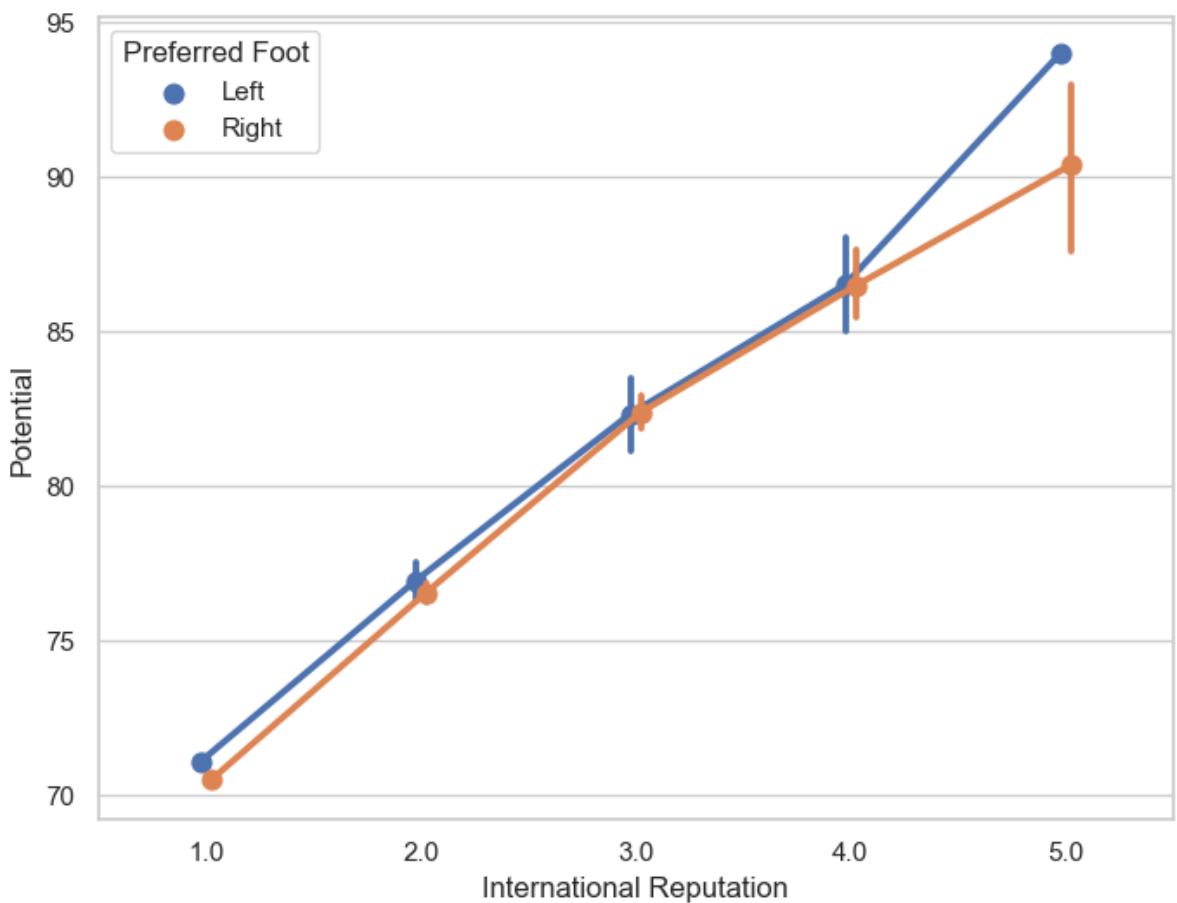
```
In [64]: f, ax = plt.subplots(figsize=(8,6))
sns.pointplot(x= "International Reputation",y = "Potential", data=fifa19)
plt.show()
```



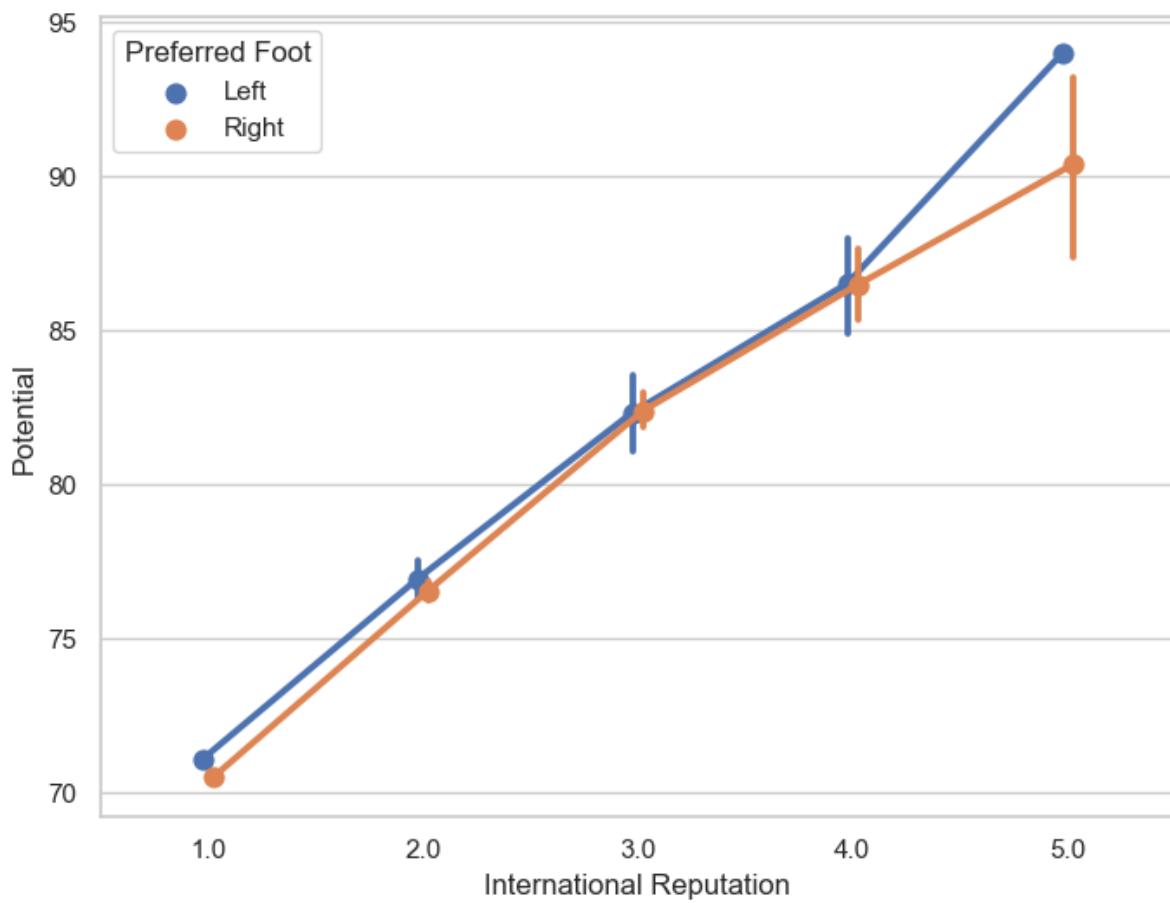
```
In [65]: f,ax = plt.subplots(figsize=(8,6))
sns.pointplot(x='International Reputation' , y ='Potential', hue='Preferred Foot',
plt.show()
```



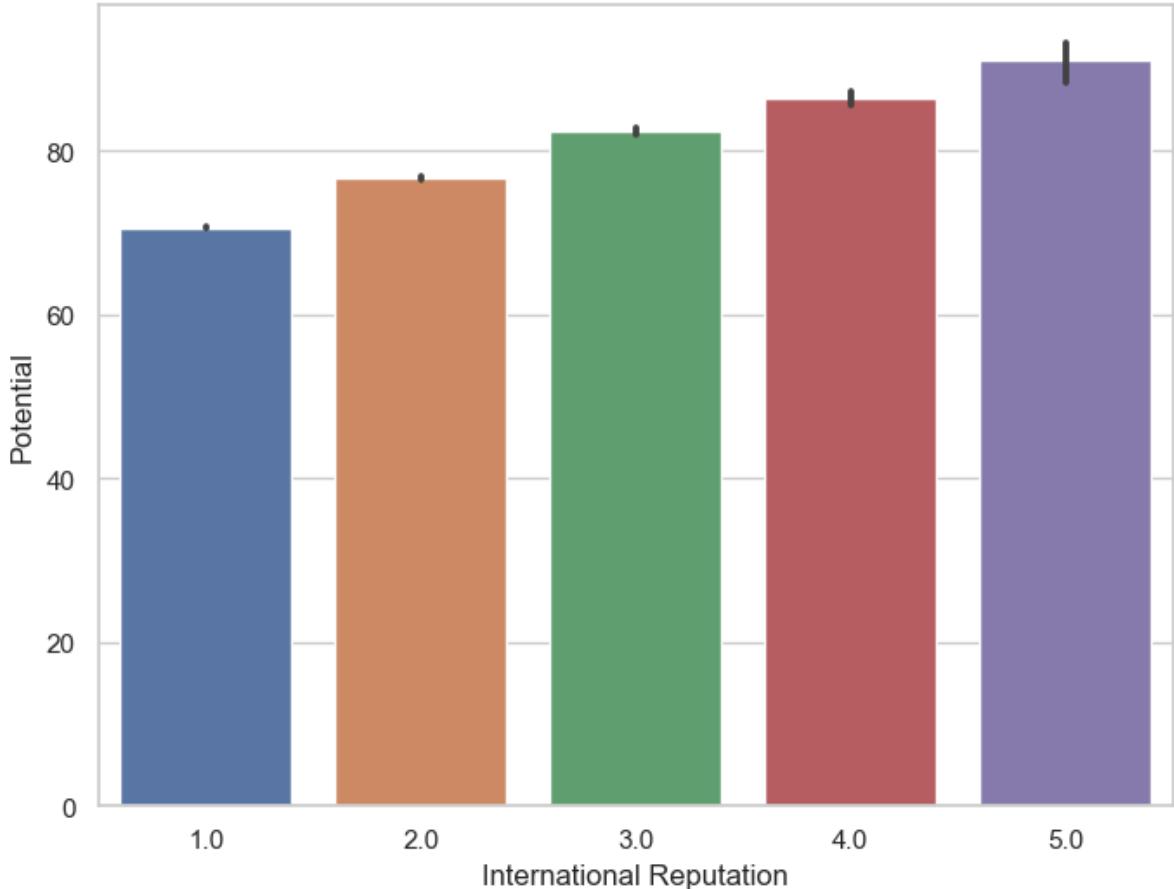
```
In [66]: f, ax = plt.subplots(figsize=(8, 6))
sns.pointplot(x="International Reputation", y="Potential", hue="Preferred Foot", data=da)
plt.show()
```



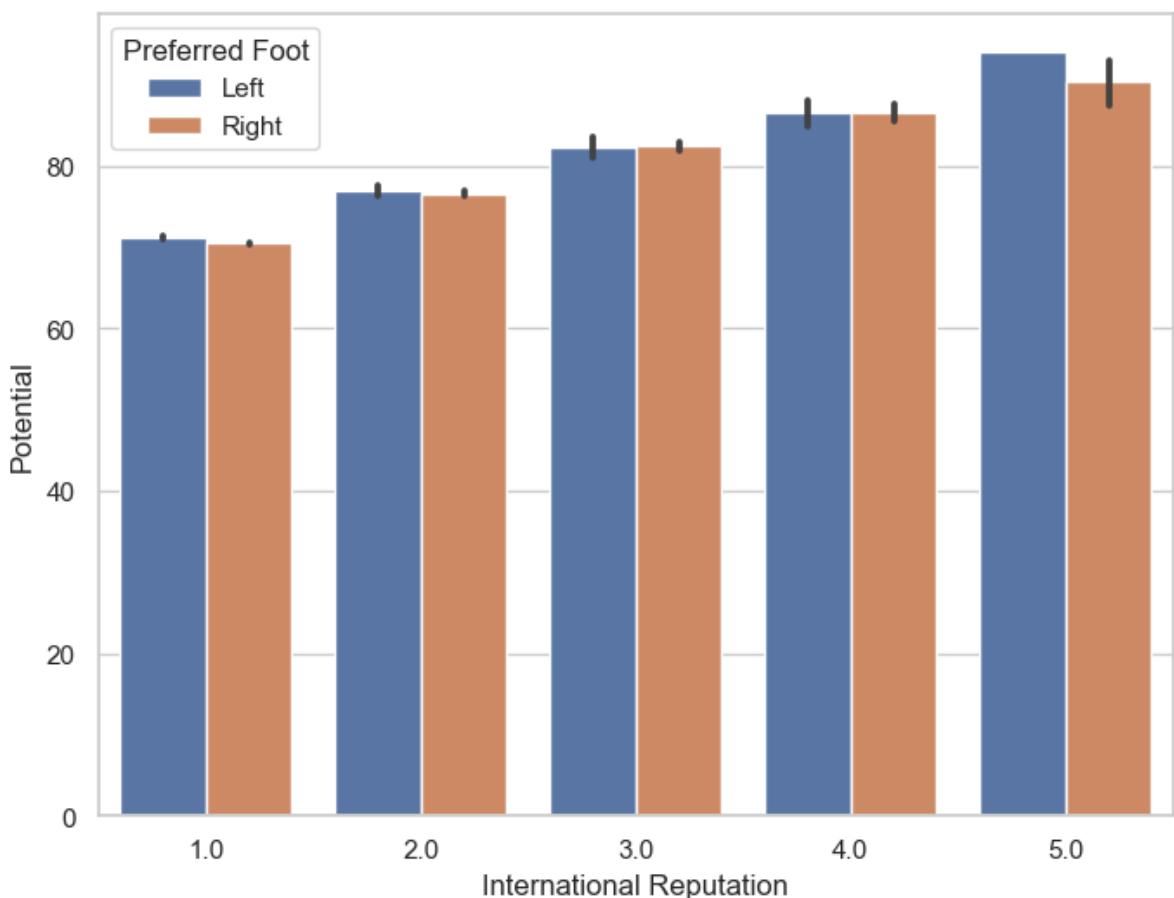
```
In [67]: f, ax = plt.subplots(figsize=(8, 6))
sns.pointplot(x="International Reputation", y="Potential", hue="Preferred Foot", data=fifa19)
plt.show()
```



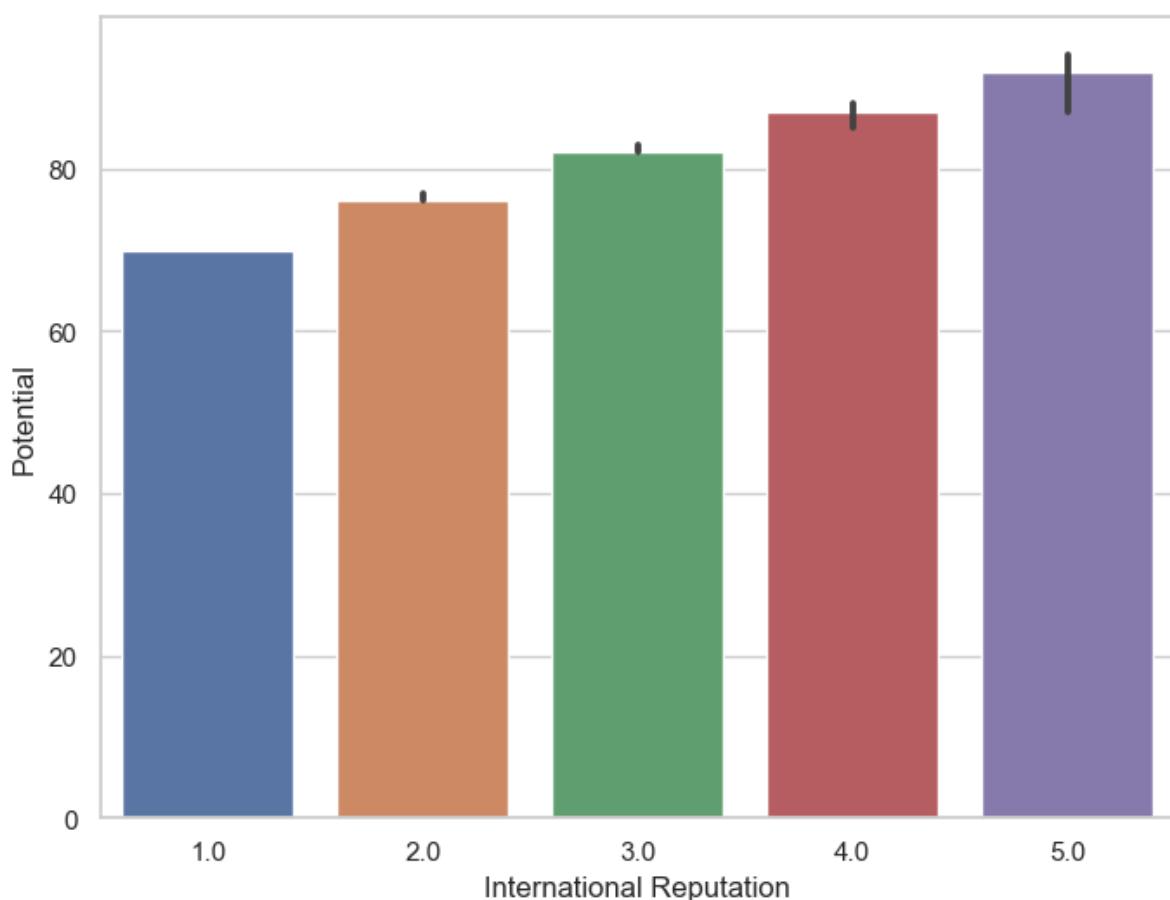
```
In [68]: f, ax = plt.subplots(figsize=(8, 6))
sns.barplot(x="International Reputation", y="Potential", data=fifa19)
plt.show()
```



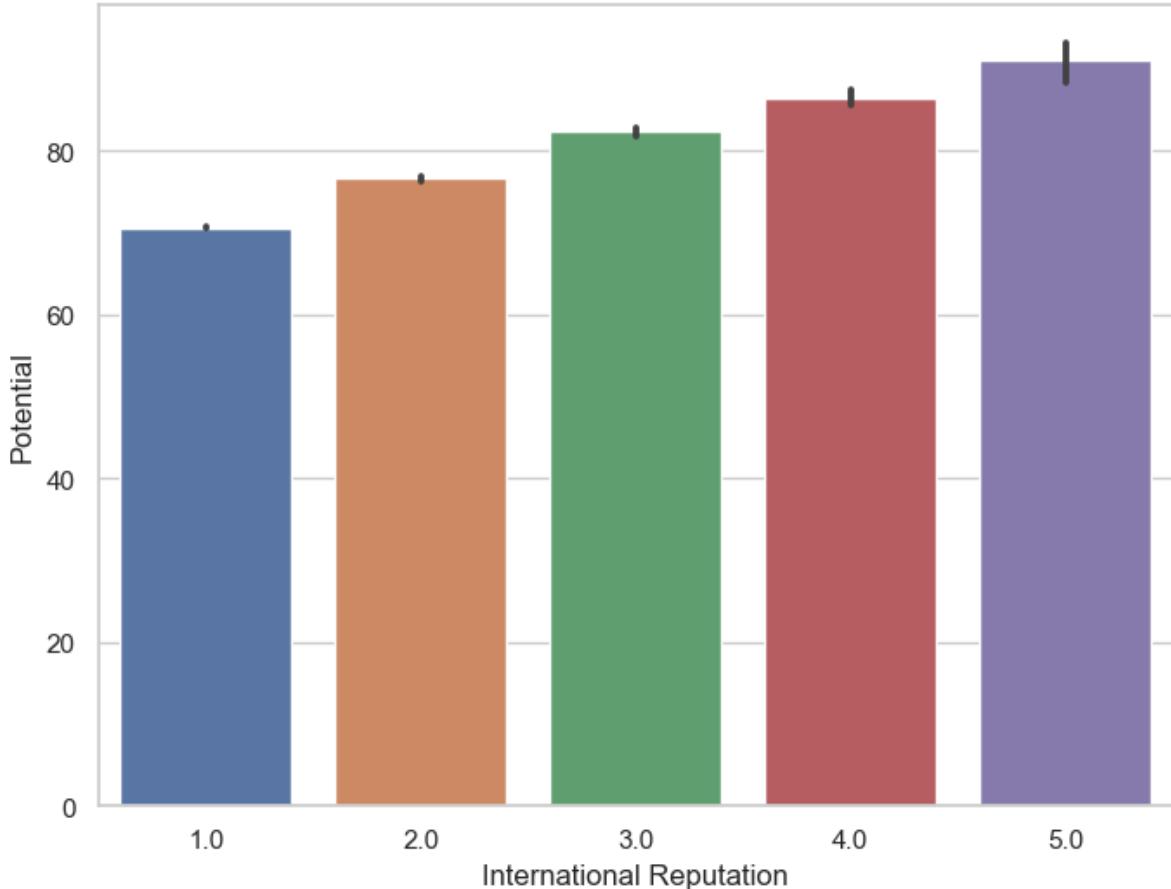
```
In [69]: f, ax = plt.subplots(figsize=(8, 6))
sns.barplot(x="International Reputation", y="Potential", hue="Preferred Foot", data=left)
plt.show()
```



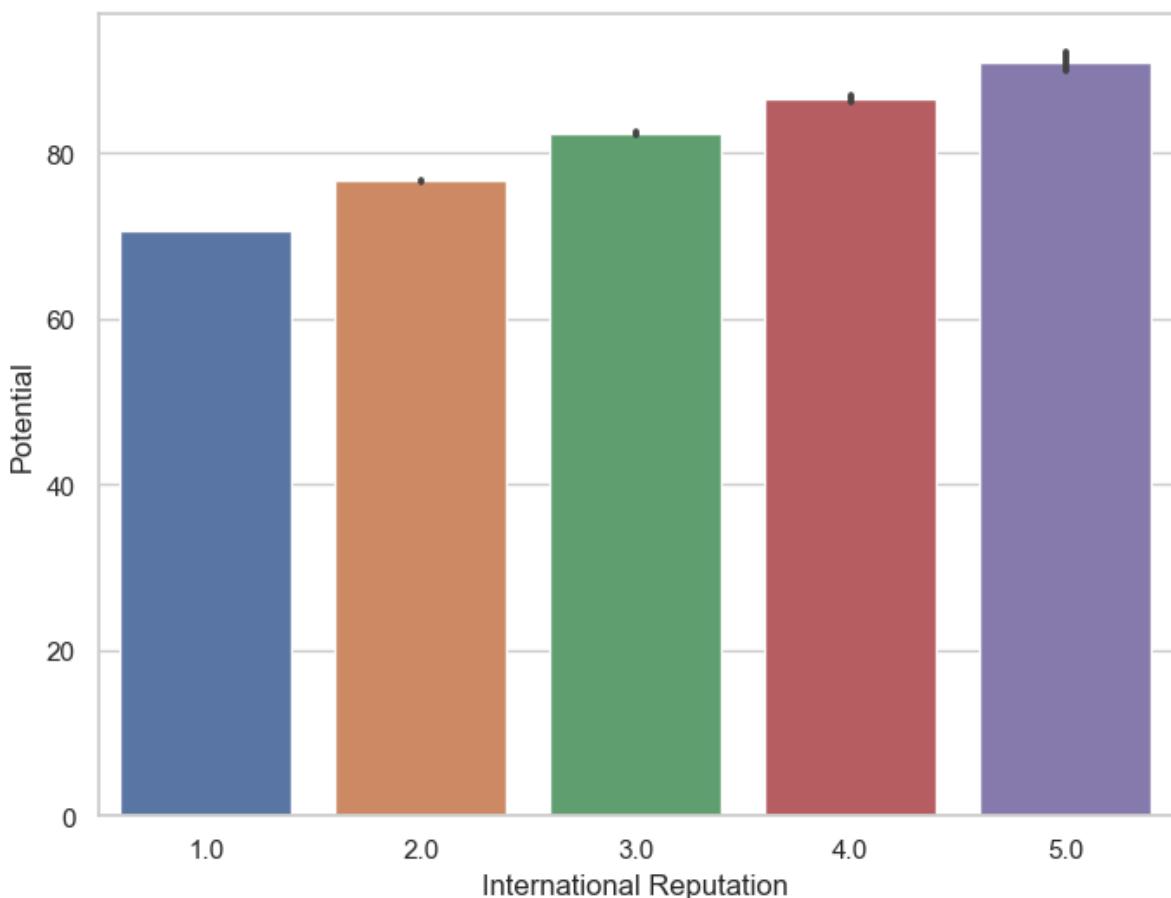
```
In [70]: from numpy import median
f,ax= plt.subplots(figsize=(8,6))
sns.barplot(x="International Reputation", y="Potential",data= fifa19,estimator= median)
plt.show()
```



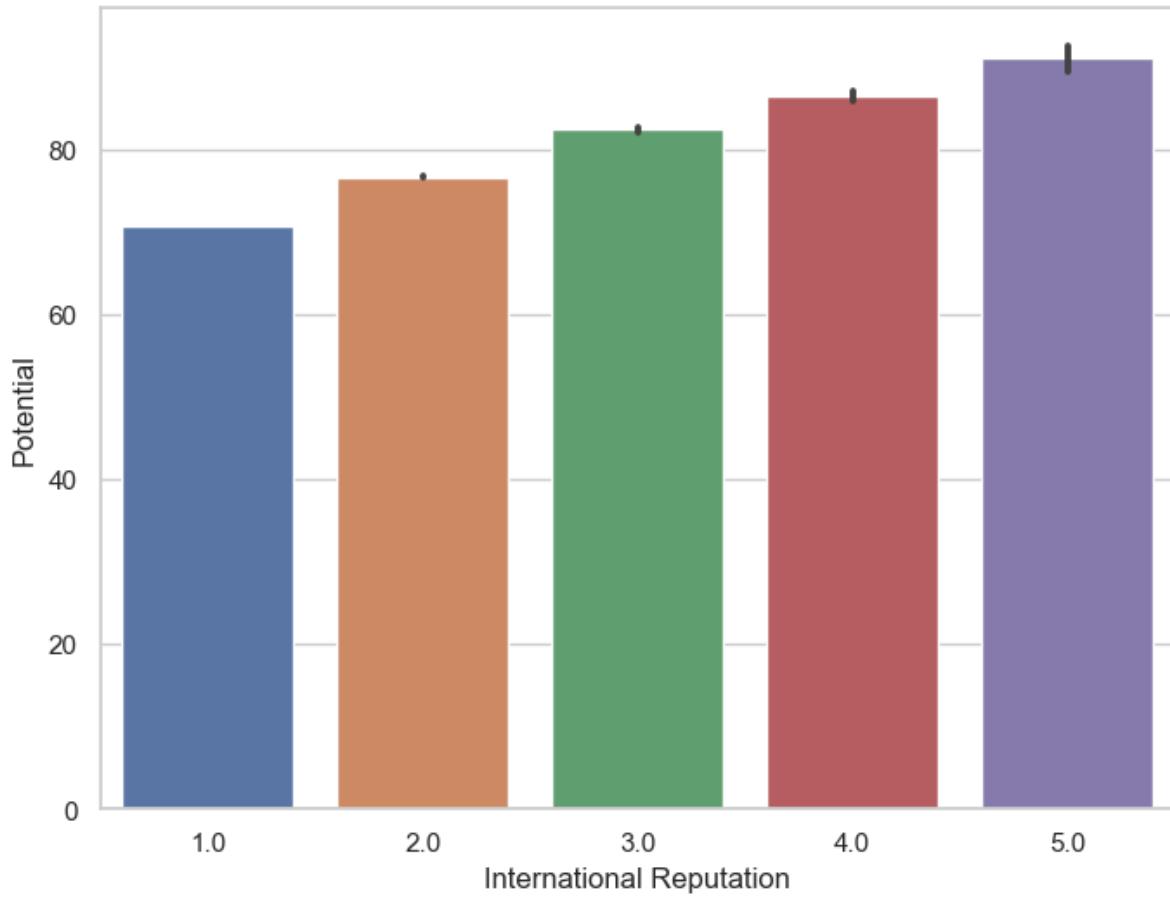
```
In [71]: f, ax = plt.subplots(figsize=(8, 6))
sns.barplot(x="International Reputation", y="Potential", data=fifa19)
plt.show()
```



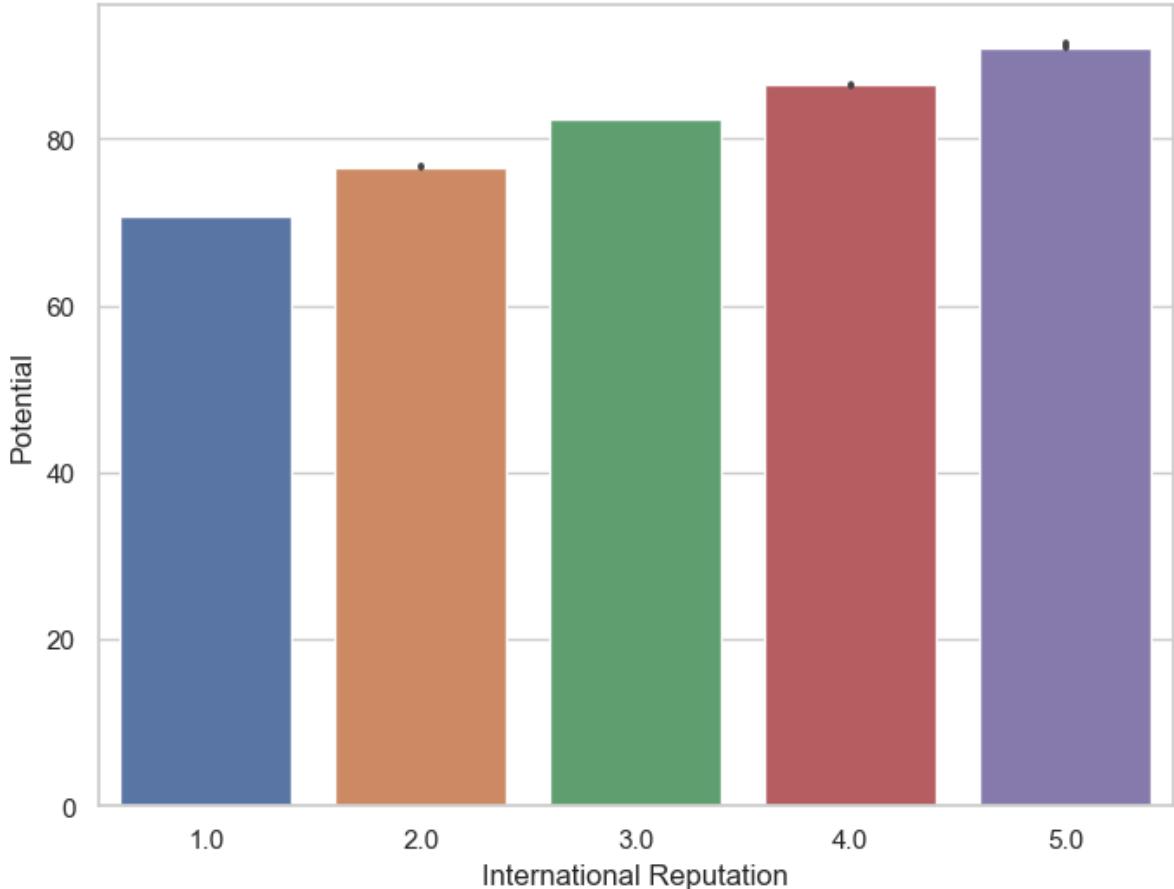
```
In [72]: f, ax = plt.subplots(figsize=(8, 6))
sns.barplot(x="International Reputation", y="Potential", data=fifa19, ci=58)
plt.show()
```



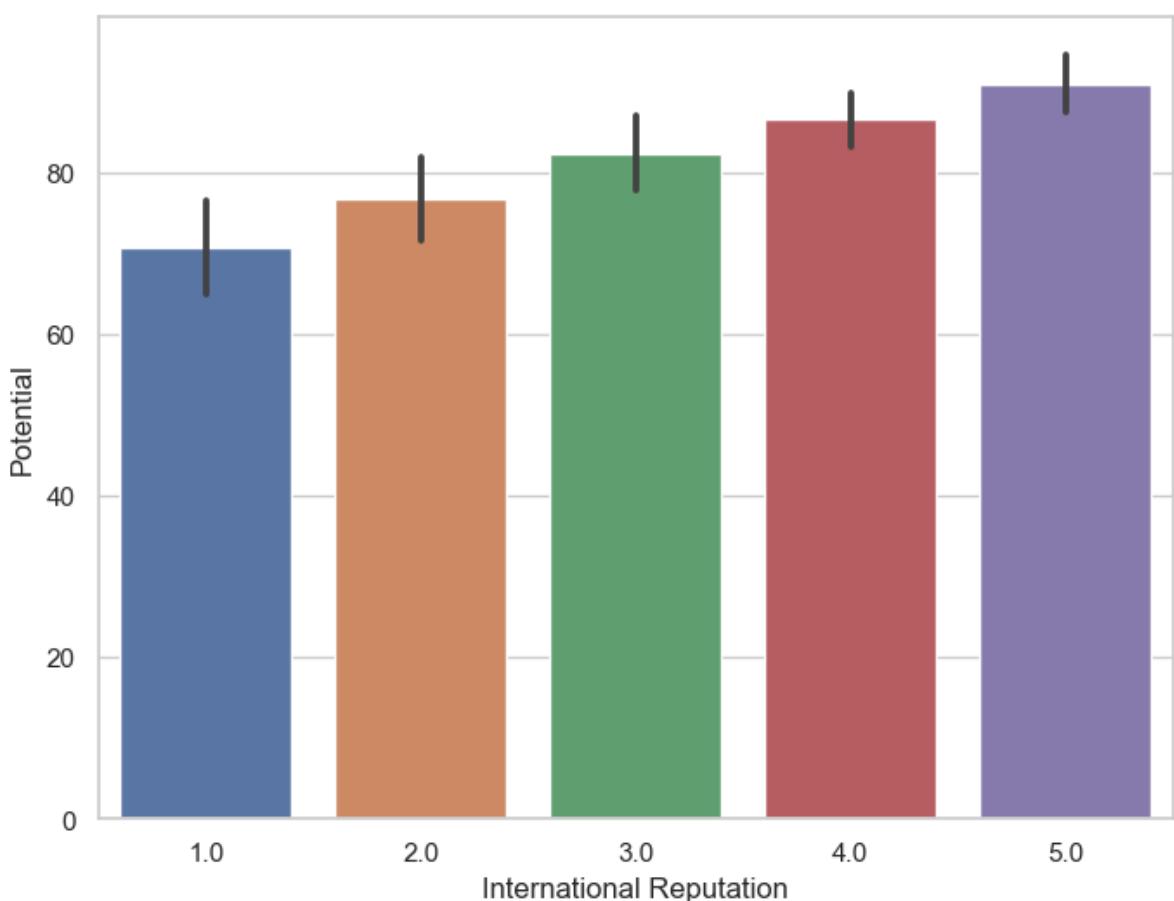
```
In [73]: f, ax = plt.subplots(figsize=(8, 6))
sns.barplot(x="International Reputation", y="Potential", data=fifa19, ci=80)
plt.show()
```



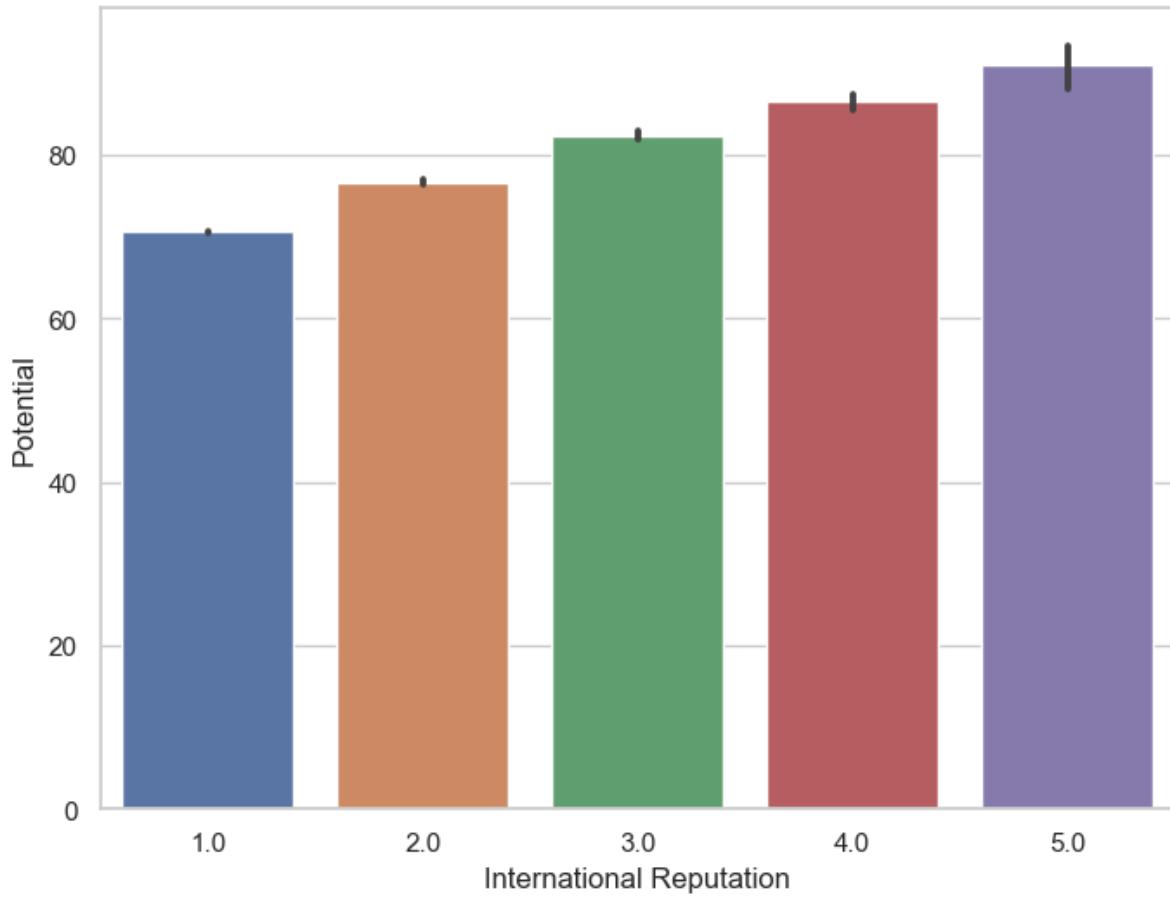
```
In [74]: f, ax = plt.subplots(figsize=(8, 6))
sns.barplot(x="International Reputation", y="Potential", data=fifa19, ci=18)
plt.show()
```



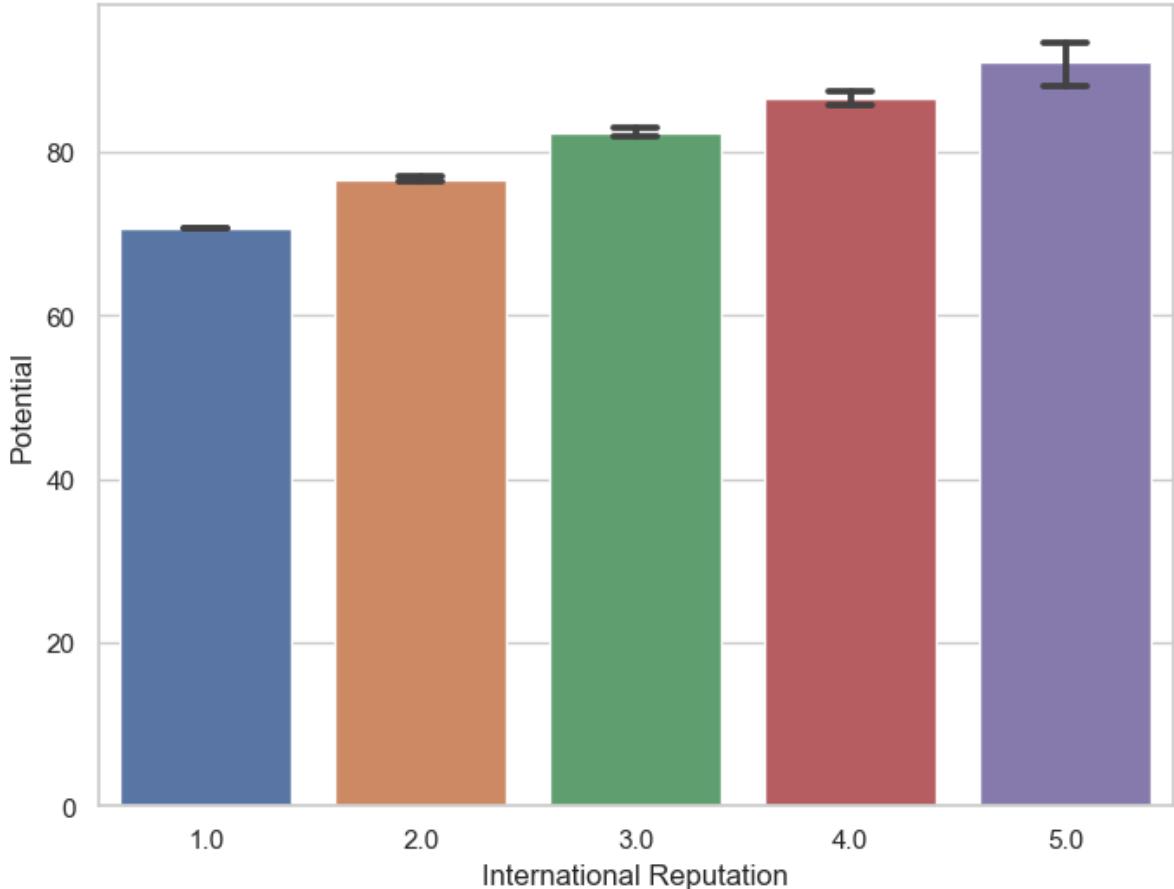
```
In [75]: f, ax = plt.subplots(figsize=(8, 6))
sns.barplot(x="International Reputation", y="Potential", data=fifa19, ci="sd")
plt.show()
```



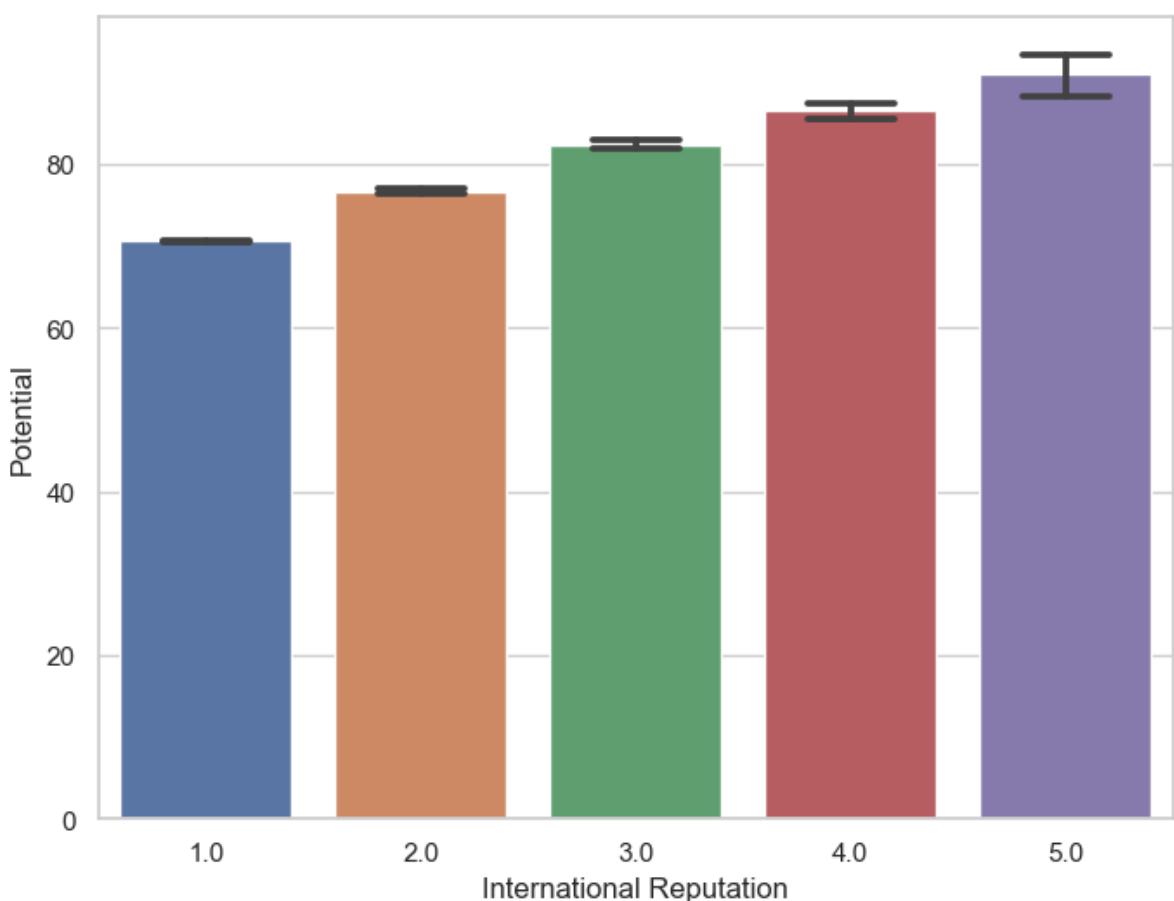
```
In [76]: f, ax = plt.subplots(figsize=(8, 6))
sns.barplot(x="International Reputation", y="Potential", data=fifa19)
plt.show()
```



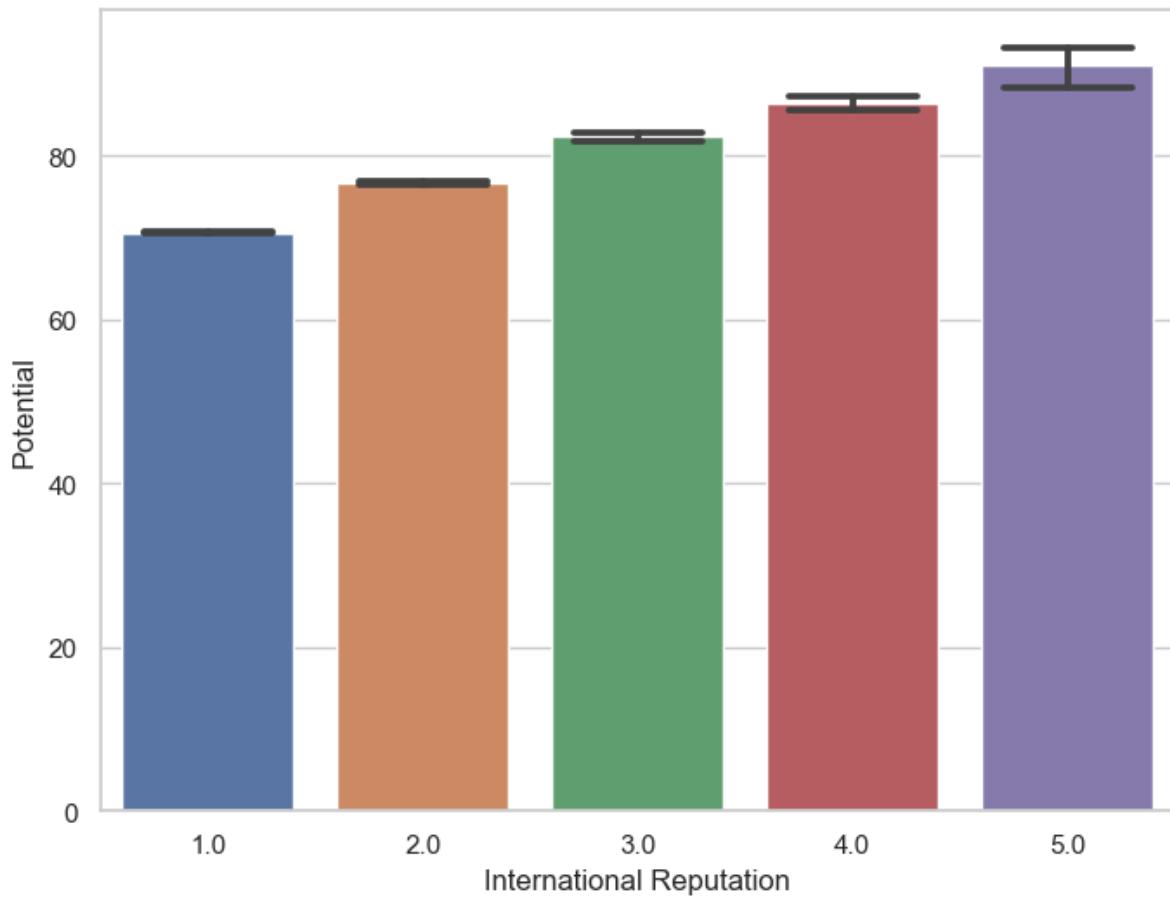
```
In [77]: f, ax = plt.subplots(figsize=(8, 6))
sns.barplot(x="International Reputation", y="Potential", data=fifa19, capsize=0.2)
plt.show()
```



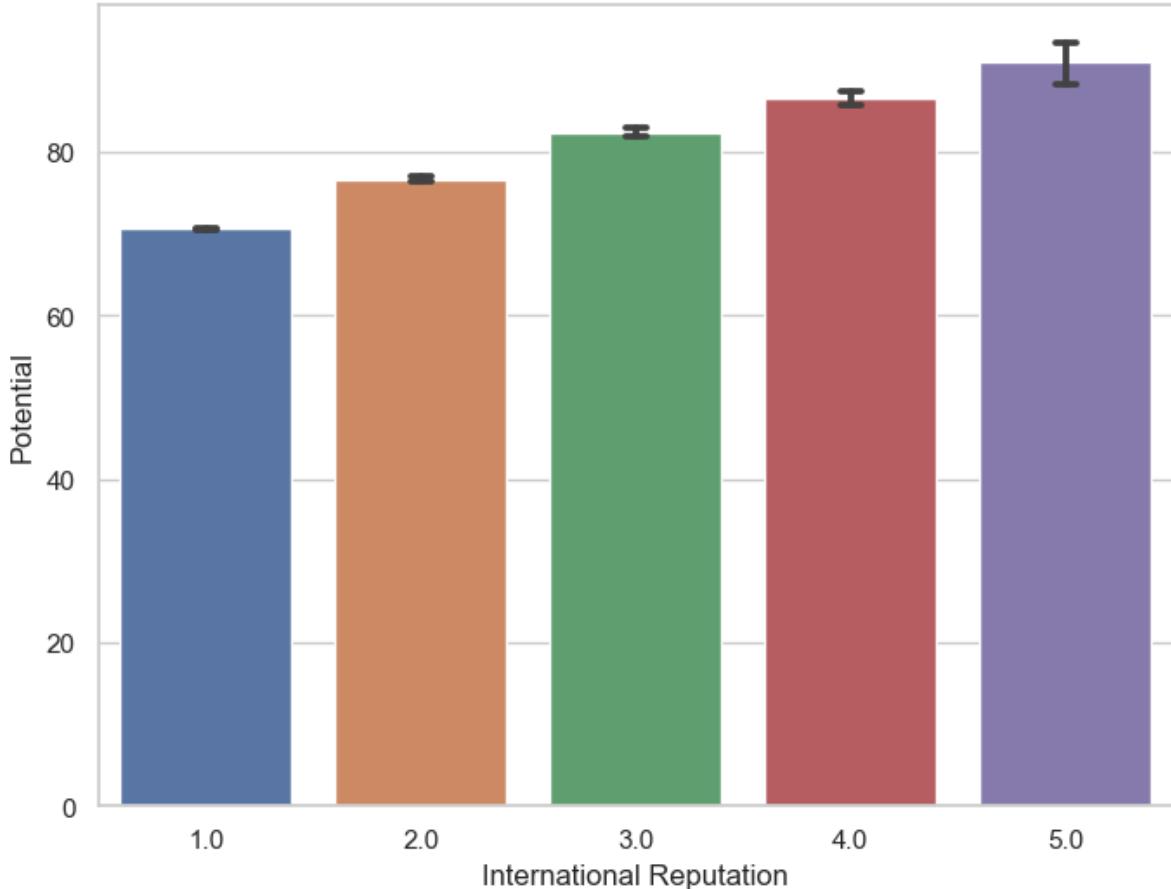
```
In [78]: f, ax = plt.subplots(figsize=(8, 6))
sns.barplot(x="International Reputation", y="Potential", data=fifa19, capsize=0.4)
plt.show()
```



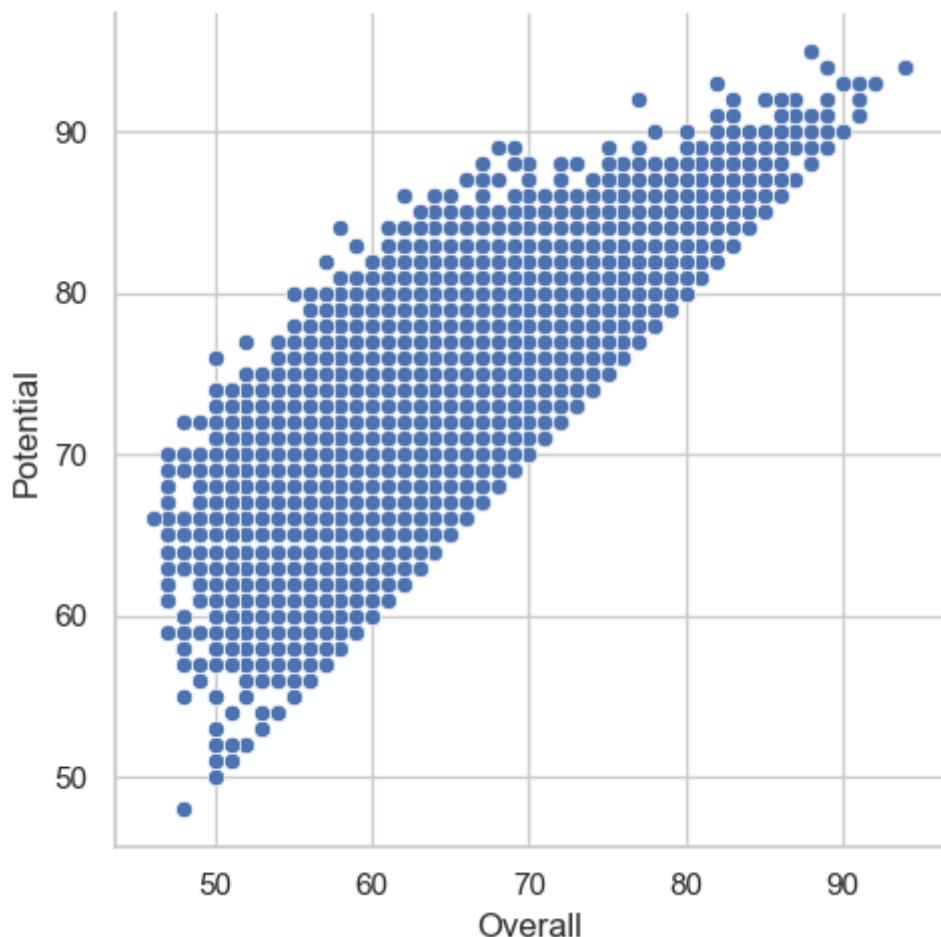
```
In [79]: f, ax = plt.subplots(figsize=(8, 6))
sns.barplot(x="International Reputation", y="Potential", data=fifa19, capsize=0.6)
plt.show()
```



```
In [80]: f, ax = plt.subplots(figsize=(8, 6))
sns.barplot(x="International Reputation", y="Potential", data=fifa19, capsize=0.1)
plt.show()
```

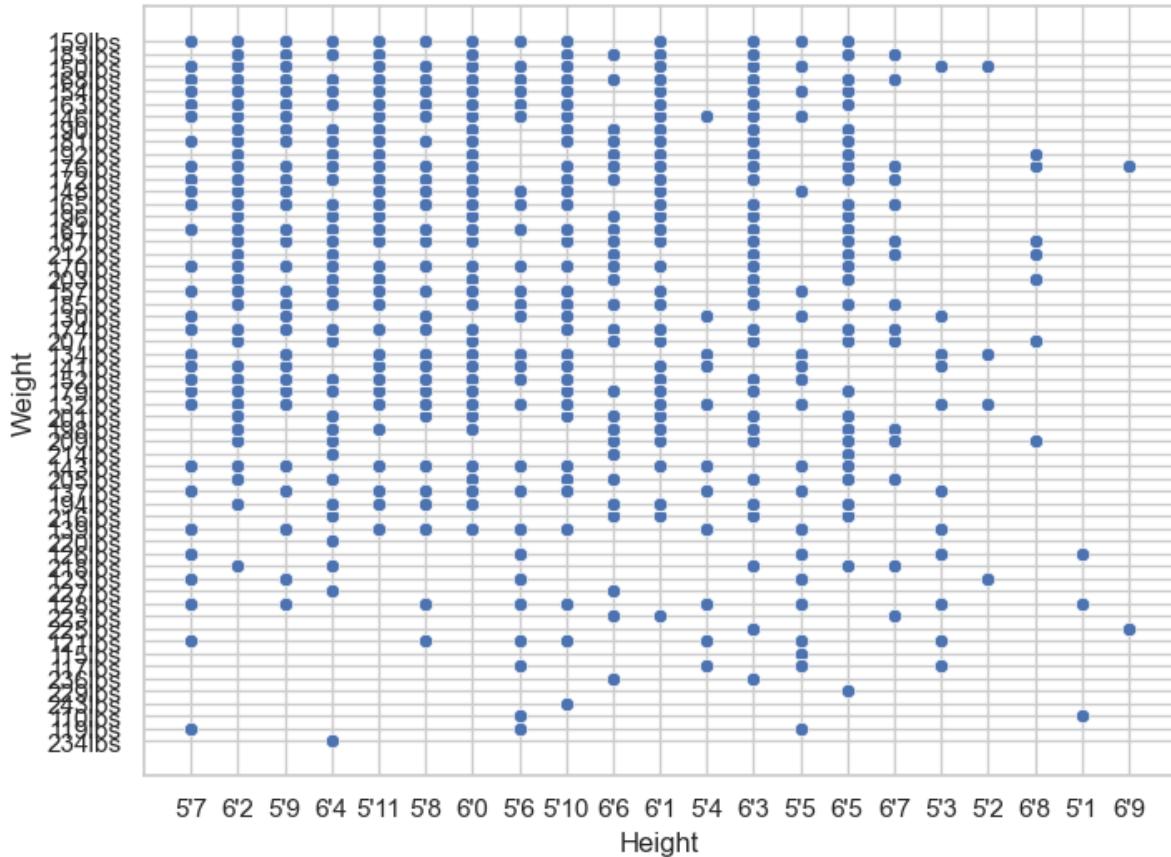


```
In [81]: g = sns.relplot(x="Overall", y="Potential", data=fifa19)
```

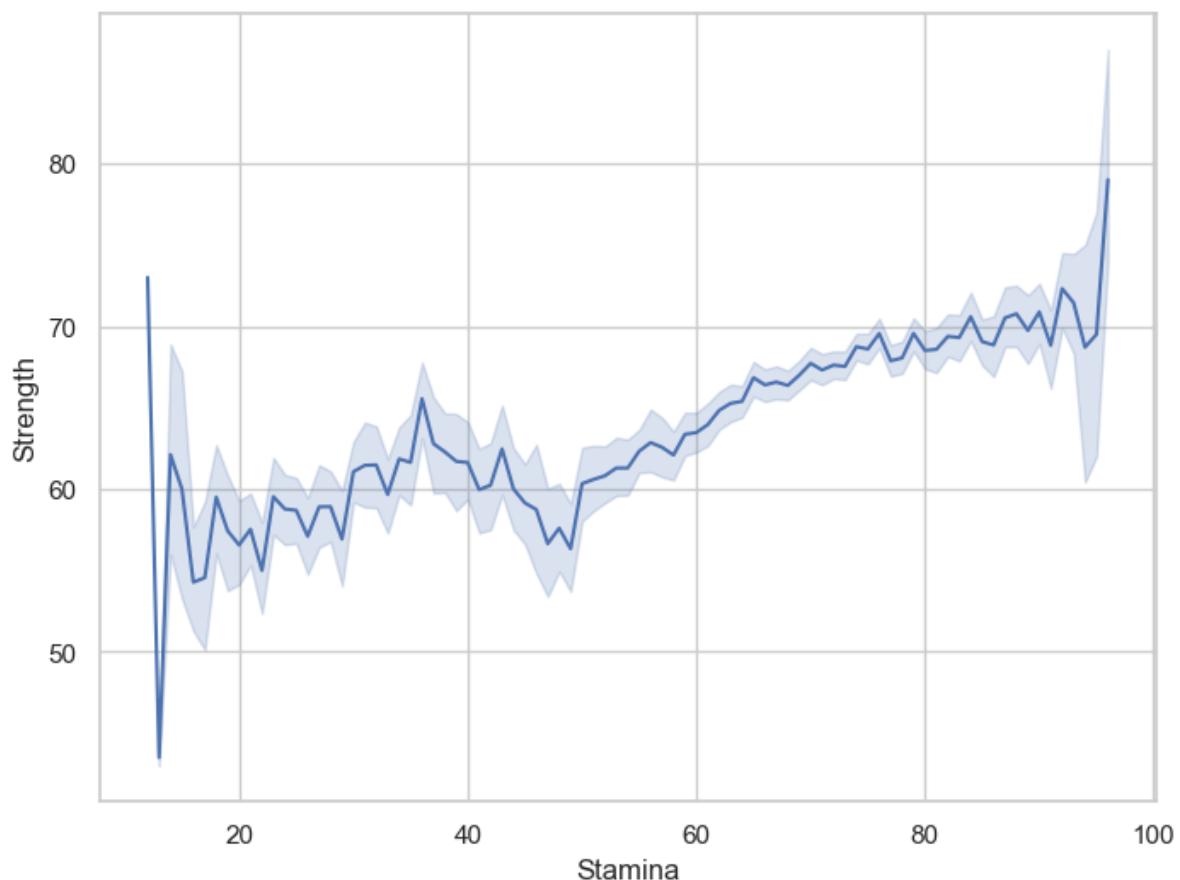


```
In [82]: f, ax = plt.subplots(figsize=(8, 6))
sns.scatterplot(x="Height", y="Weight", data=fifa19)
```

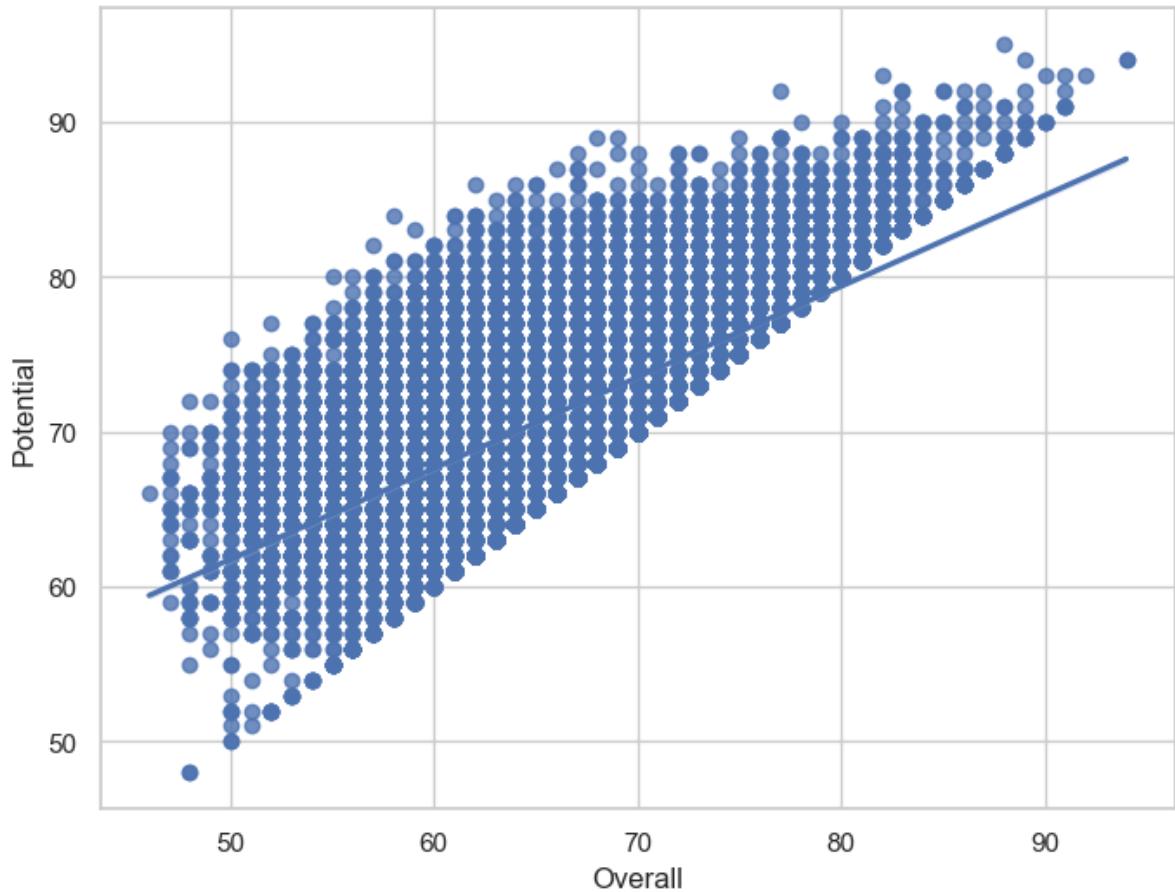
```
plt.show()
```



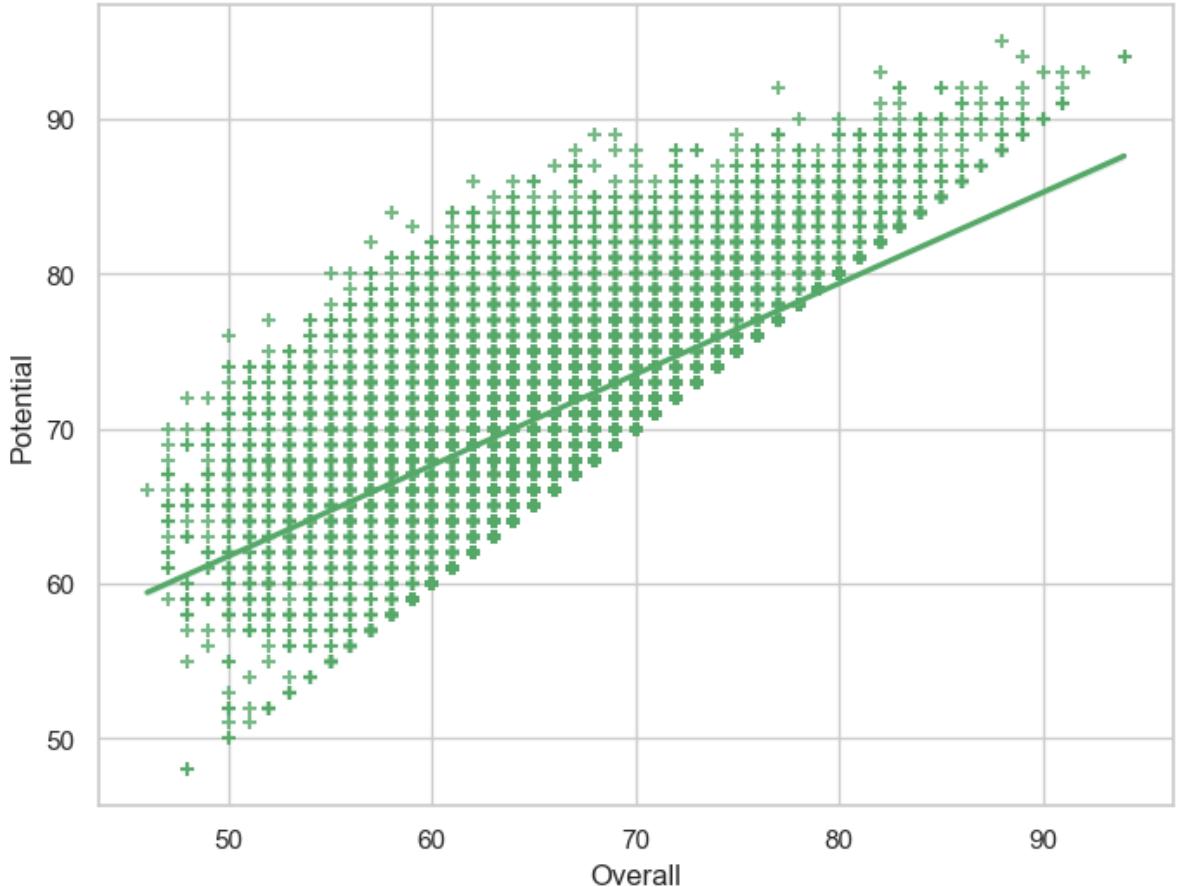
```
In [83]: f, ax = plt.subplots(figsize=(8, 6))
ax = sns.lineplot(x="Stamina", y="Strength", data=fifa19)
plt.show()
```



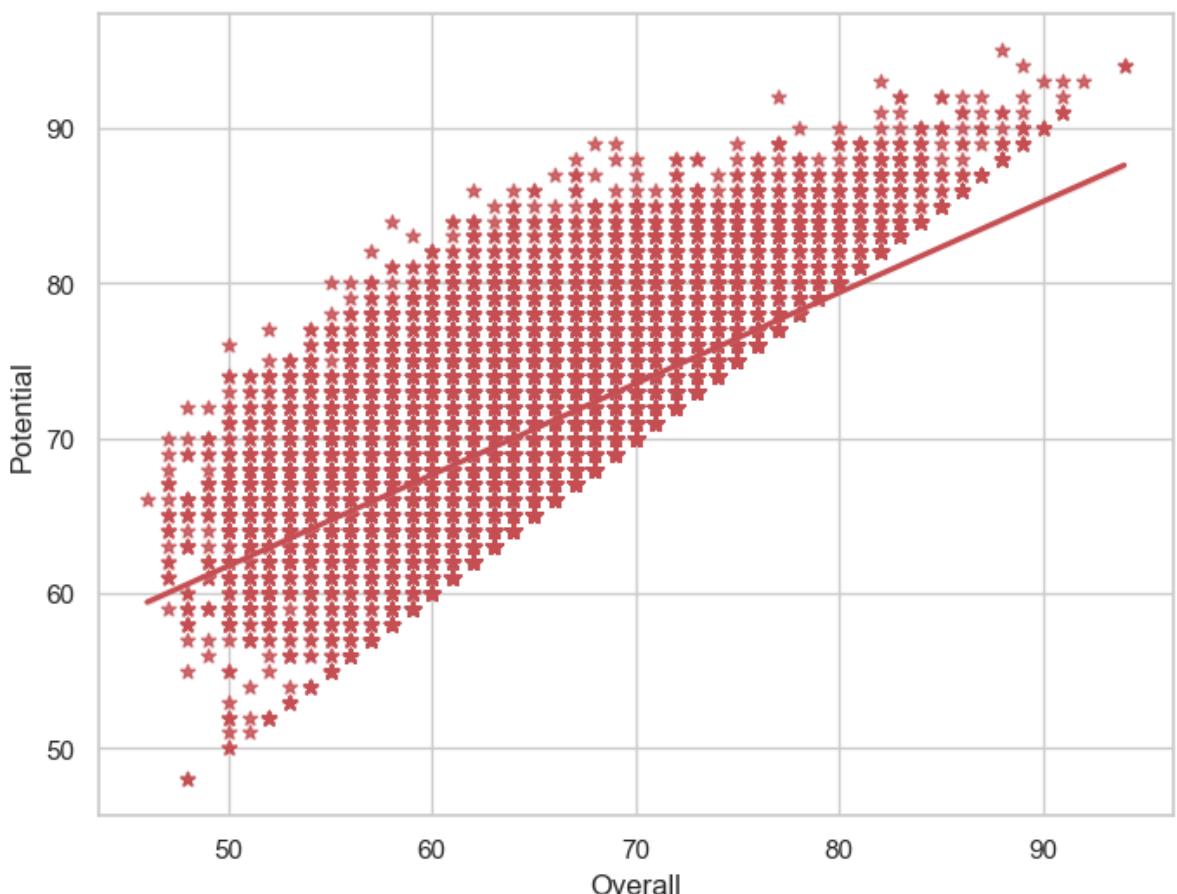
```
In [84]: f, ax = plt.subplots(figsize=(8, 6))
ax = sns.regplot(x="Overall", y="Potential", data=fifa19)
plt.show()
```



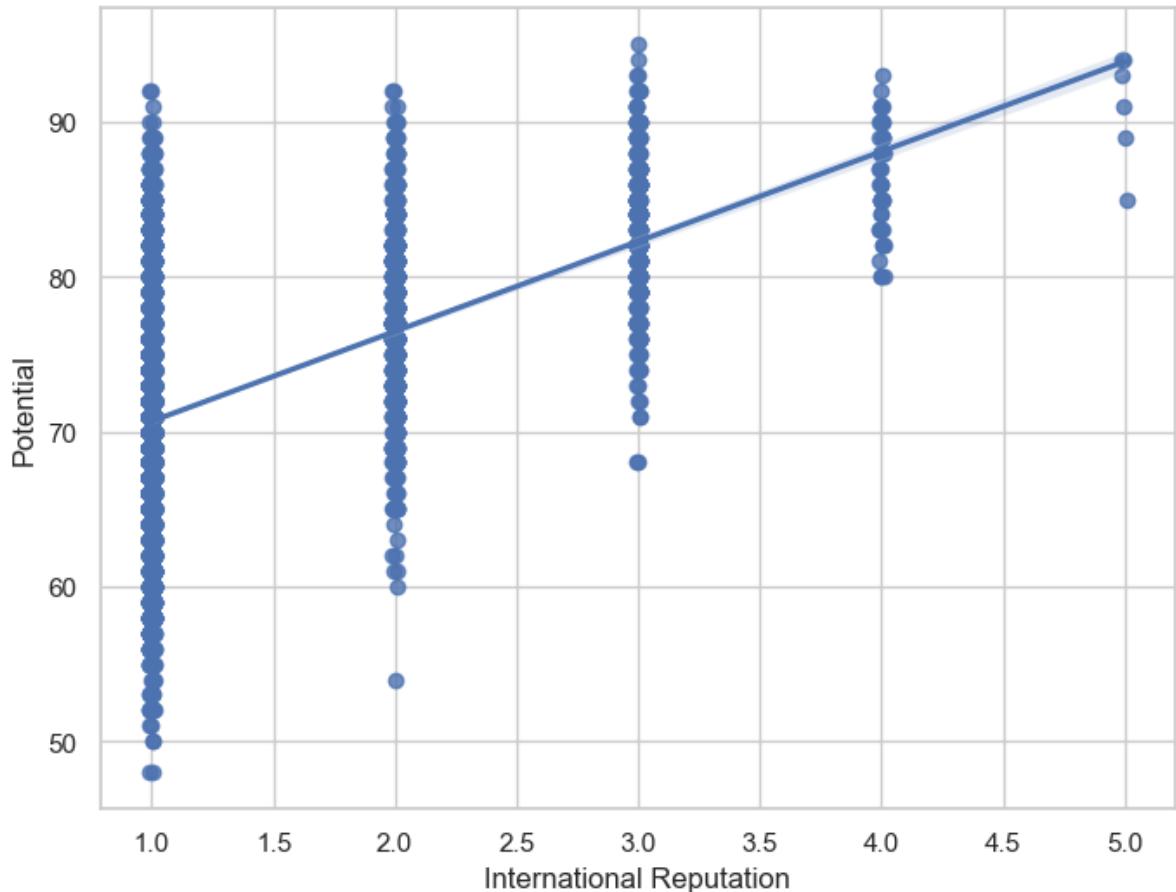
```
In [85]: f, ax = plt.subplots(figsize=(8, 6))
ax = sns.regplot(x="Overall", y="Potential", data=fifa19, color= "g", marker="+")
plt.show()
```



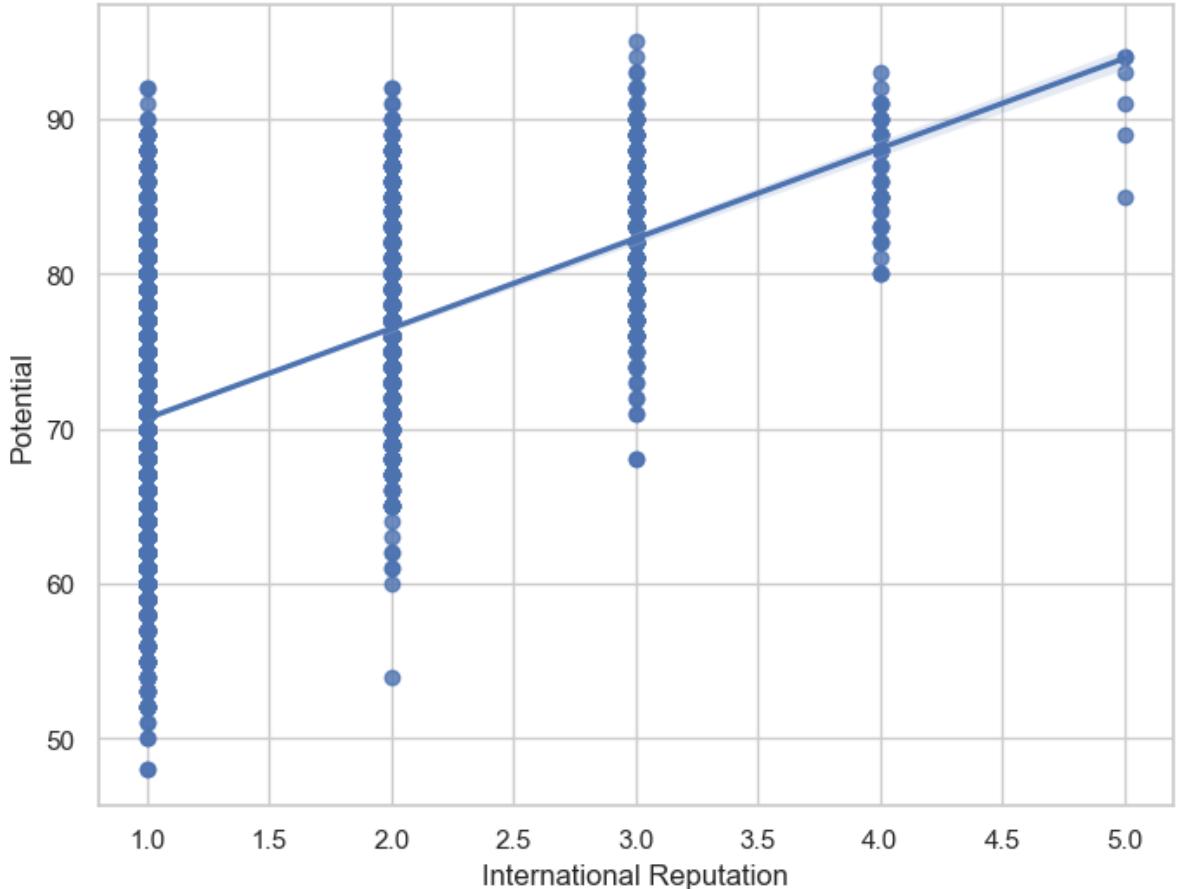
```
In [86]: f, ax = plt.subplots(figsize=(8, 6))
ax = sns.regplot(x="Overall", y="Potential", data=fifa19, color= "r", marker="*")
plt.show()
```



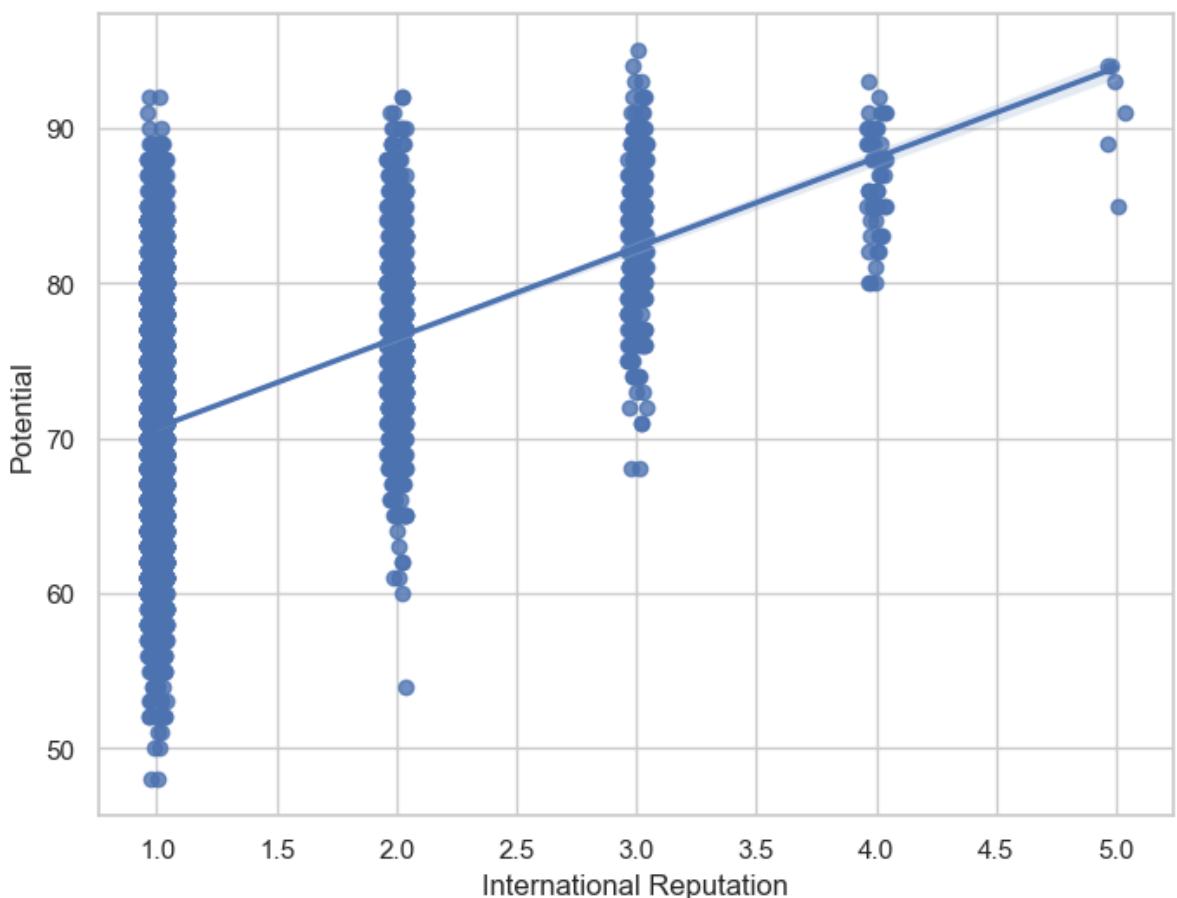
```
In [87]: f, ax = plt.subplots(figsize=(8, 6))
sns.regplot(x="International Reputation", y="Potential", data=fifa19, x_jitter=.01)
plt.show()
```



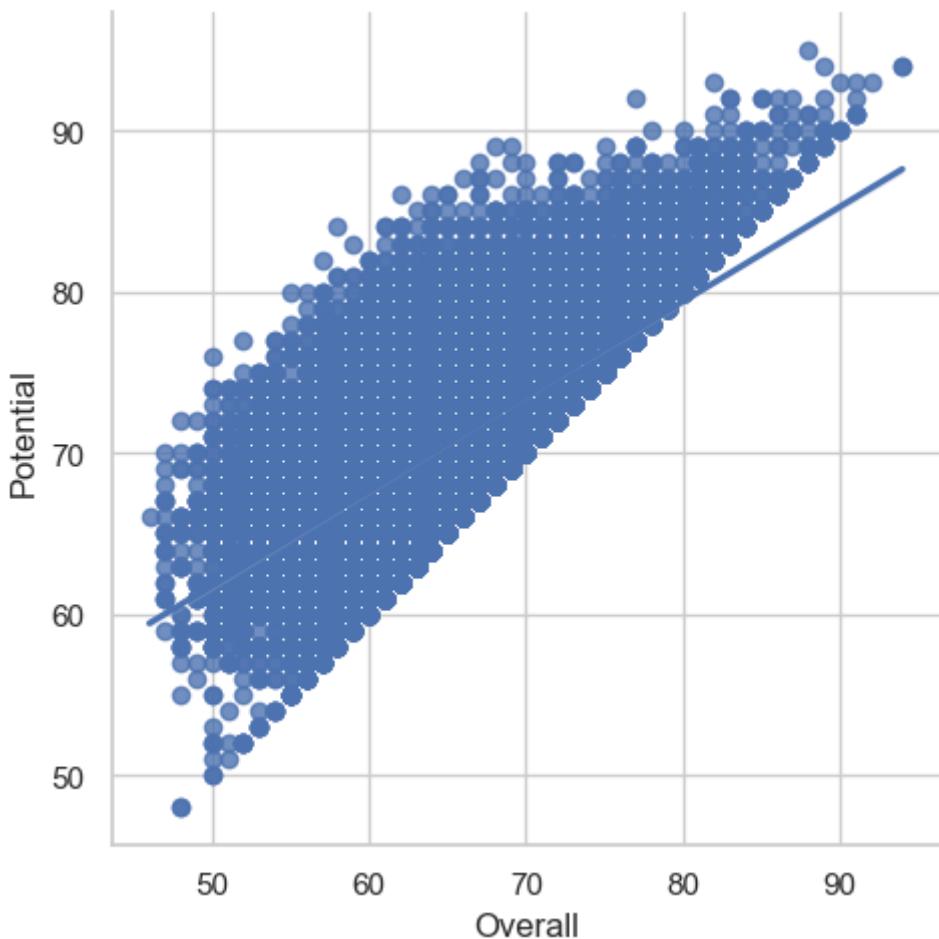
```
In [88]: f, ax = plt.subplots(figsize=(8, 6))
sns.regplot(x="International Reputation", y="Potential", data=fifa19)
plt.show()
```



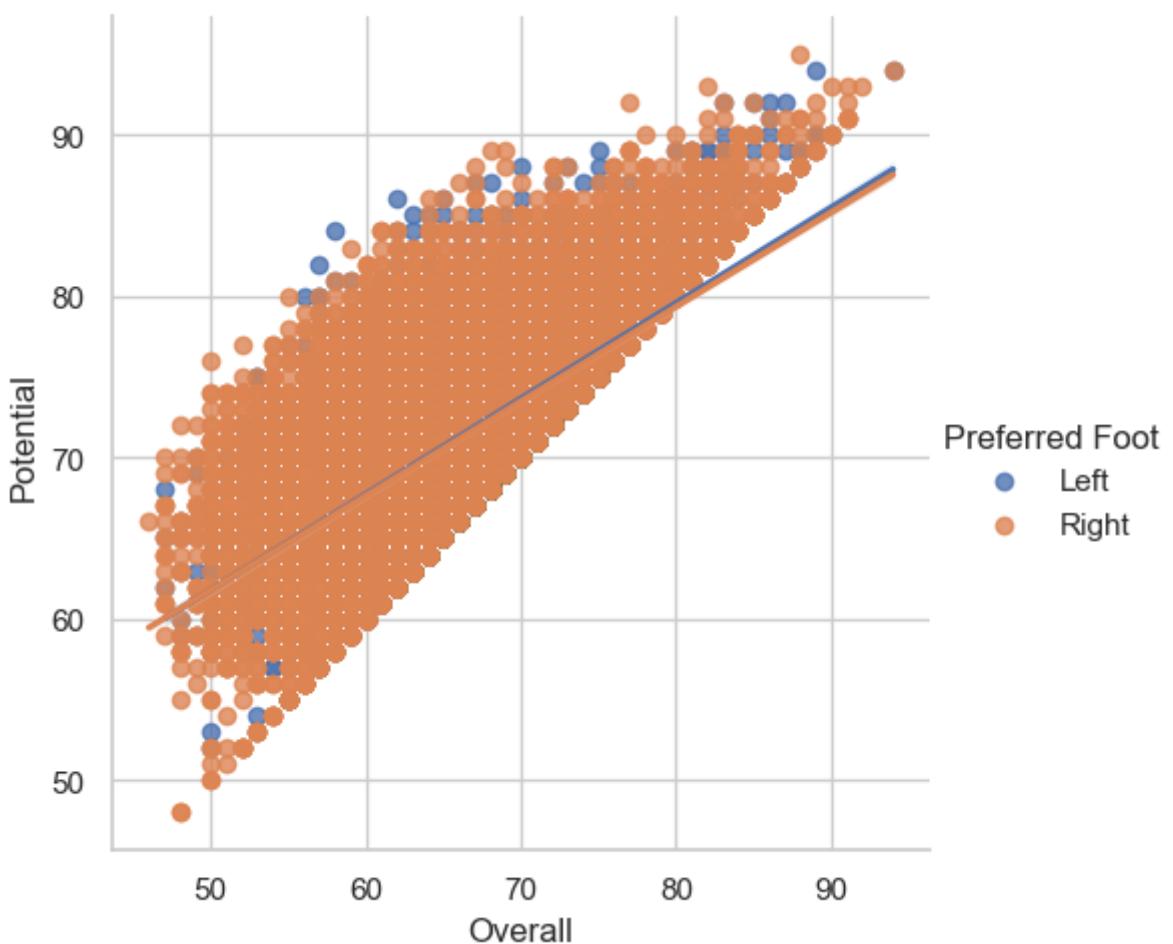
```
In [89]: f, ax = plt.subplots(figsize=(8, 6))
sns.regplot(x="International Reputation", y="Potential", data=fifa19, x_jitter=.04)
plt.show()
```



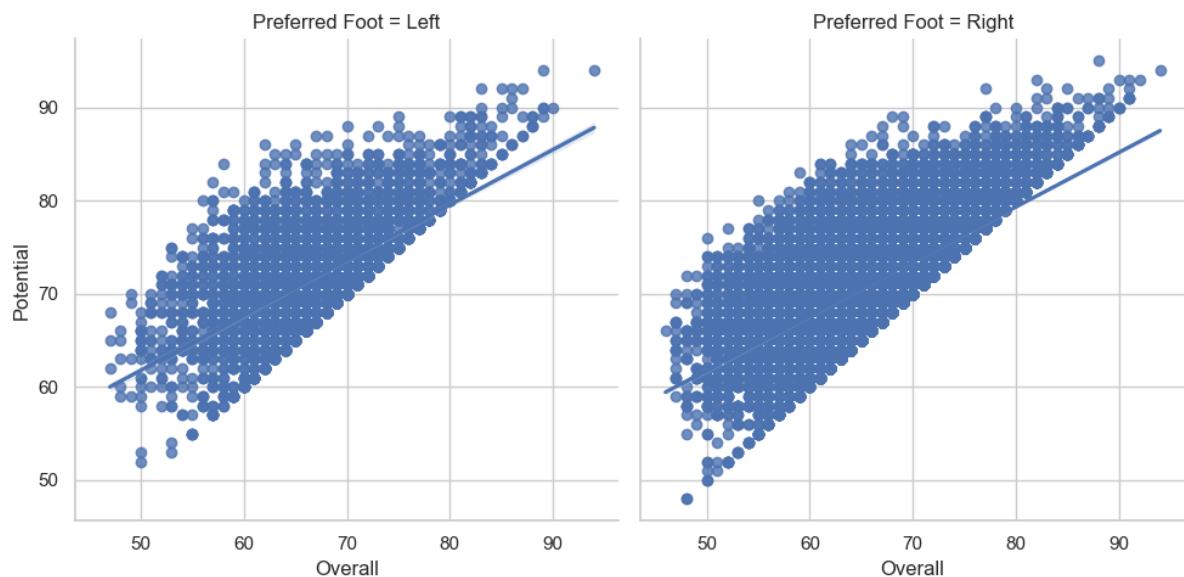
```
In [90]: g= sns.lmplot(x="Overall", y="Potential", data=fifa19)
```



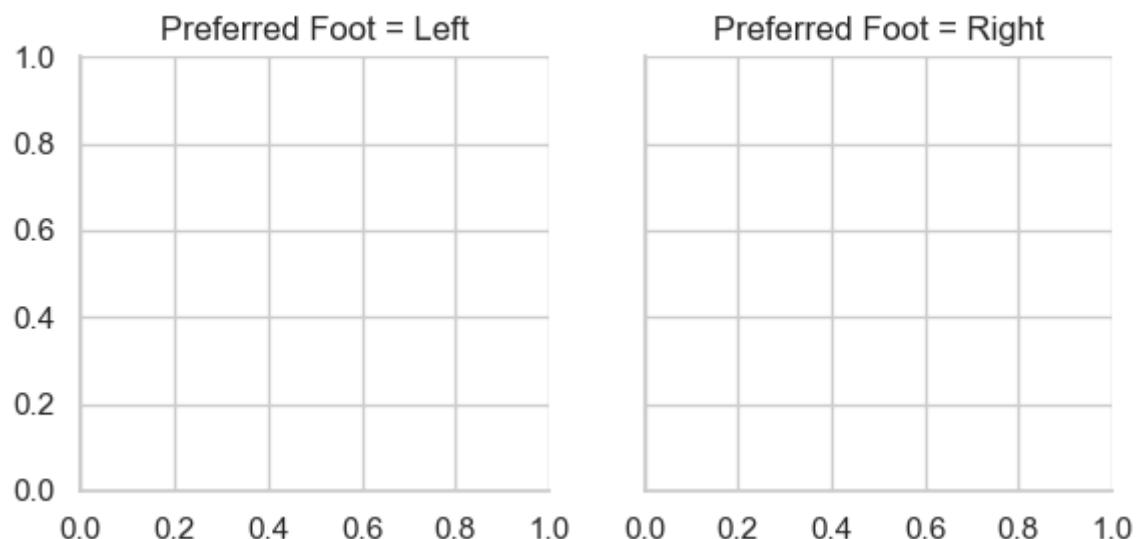
```
In [91]: g= sns.lmplot(x="Overall", y="Potential", hue="Preferred Foot", data=fifa19)
```



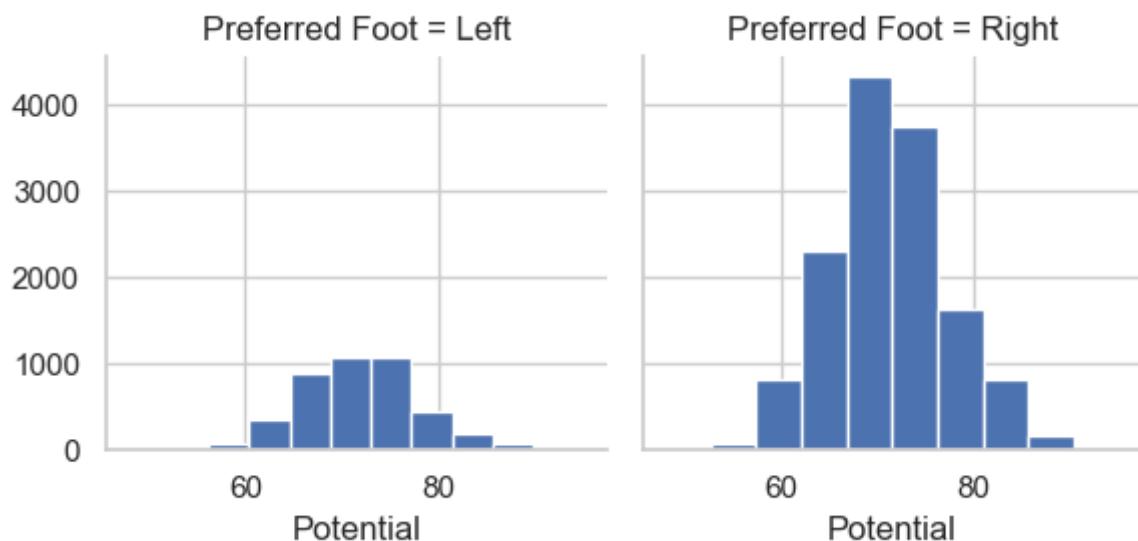
```
In [92]: g = sns.lmplot(x="Overall", y="Potential", col="Preferred Foot", data=fifa19)
```



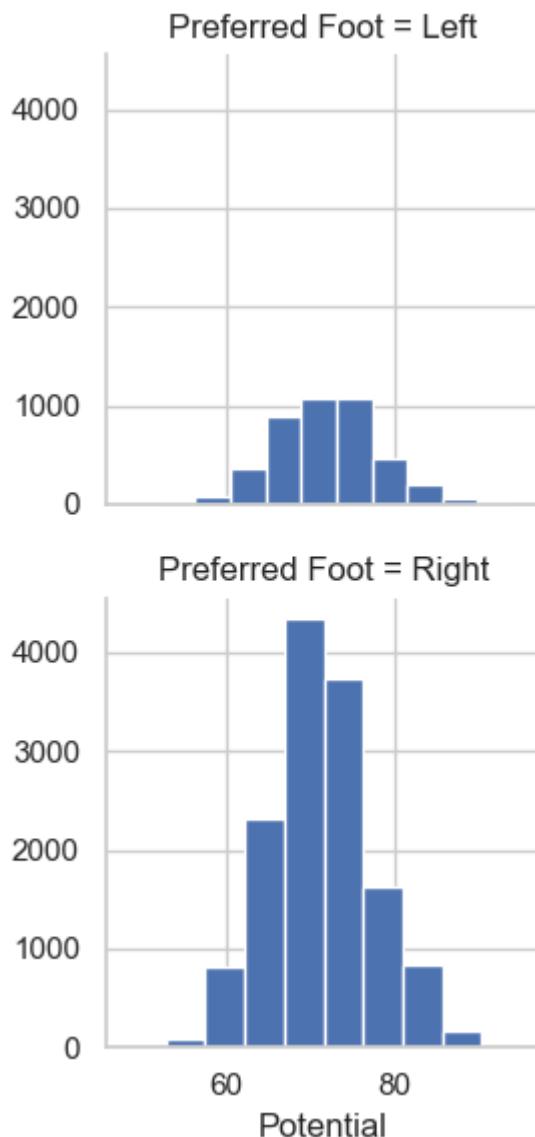
```
In [93]: g = sns.FacetGrid(fifa19, col="Preferred Foot")
```



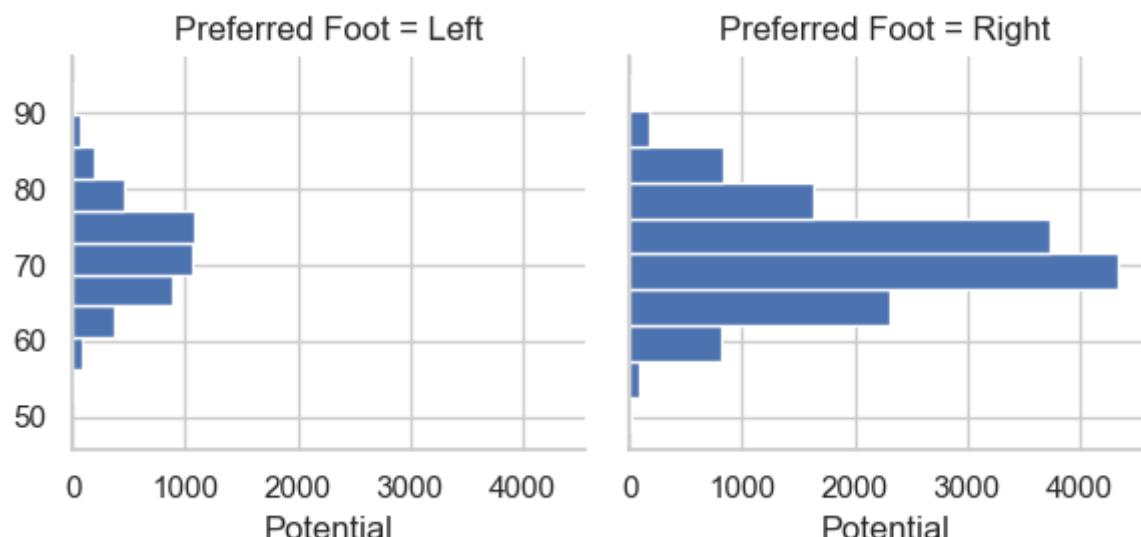
```
In [94]: g = sns.FacetGrid(fifa19, col="Preferred Foot")
g = g.map(plt.hist, "Potential")
```



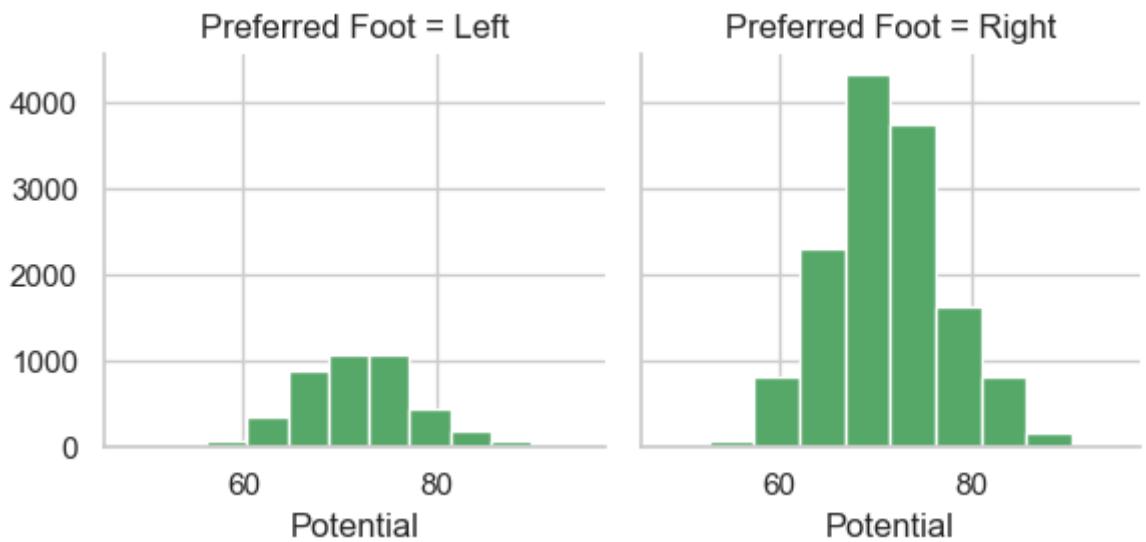
```
In [95]: g = sns.FacetGrid(fifa19, row="Preferred Foot")
g = g.map(plt.hist, "Potential")
```



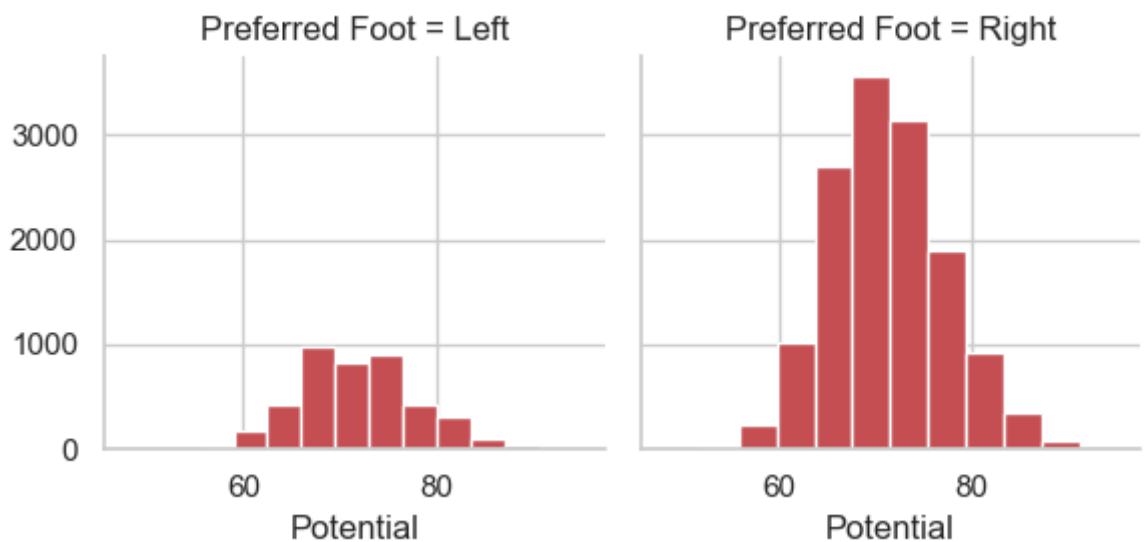
```
In [96]: g = sns.FacetGrid(fifa19, col="Preferred Foot",)
g = g.map(plt.hist, "Potential", orientation="horizontal")
```



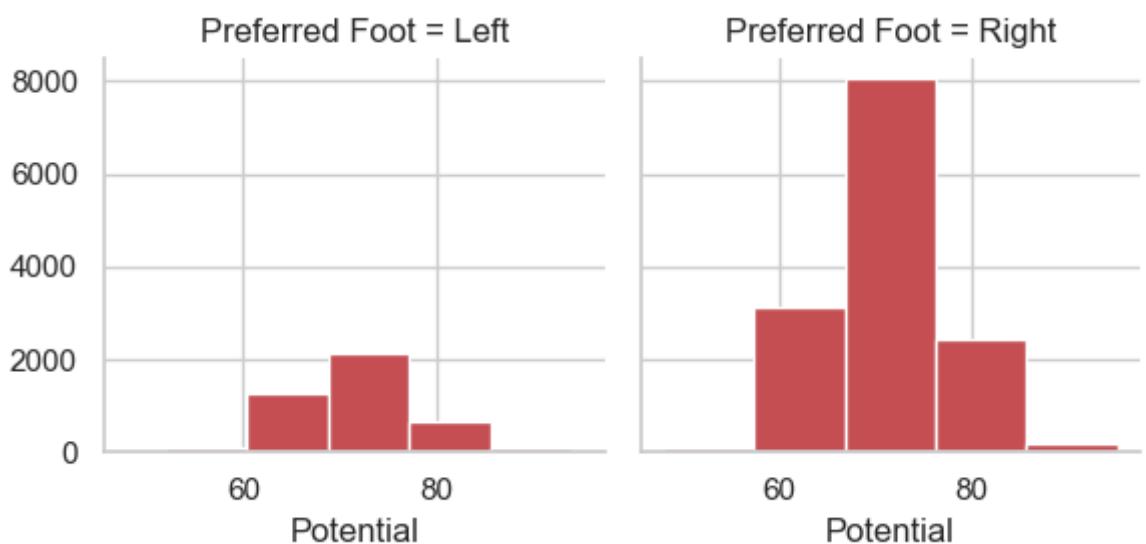
```
In [97]: g = sns.FacetGrid(fifa19, col="Preferred Foot")
g = g.map(plt.hist, "Potential", bins=10, color="g")
```



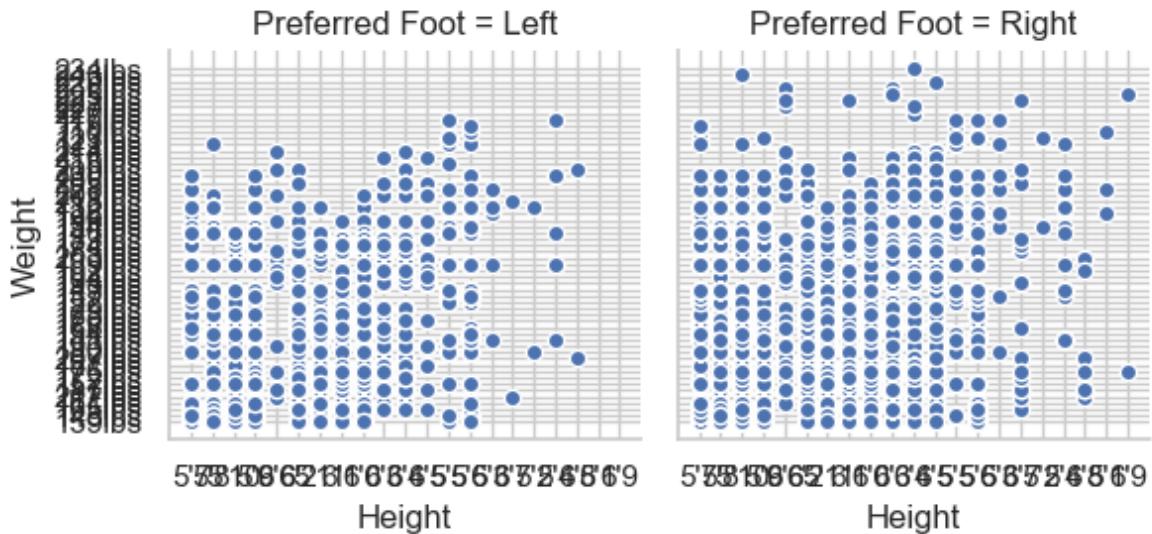
```
In [98]: g = sns.FacetGrid(fifa19, col="Preferred Foot")
g = g.map(plt.hist, "Potential", bins=12, color="r")
```



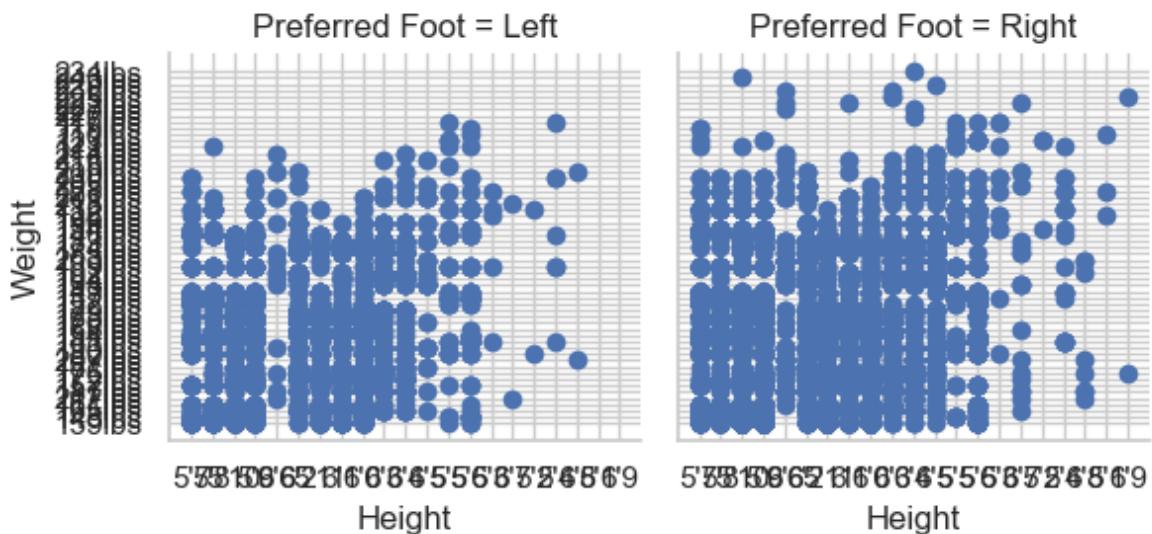
```
In [99]: g = sns.FacetGrid(fifa19, col="Preferred Foot")
g = g.map(plt.hist, "Potential", bins=5, color="r")
```



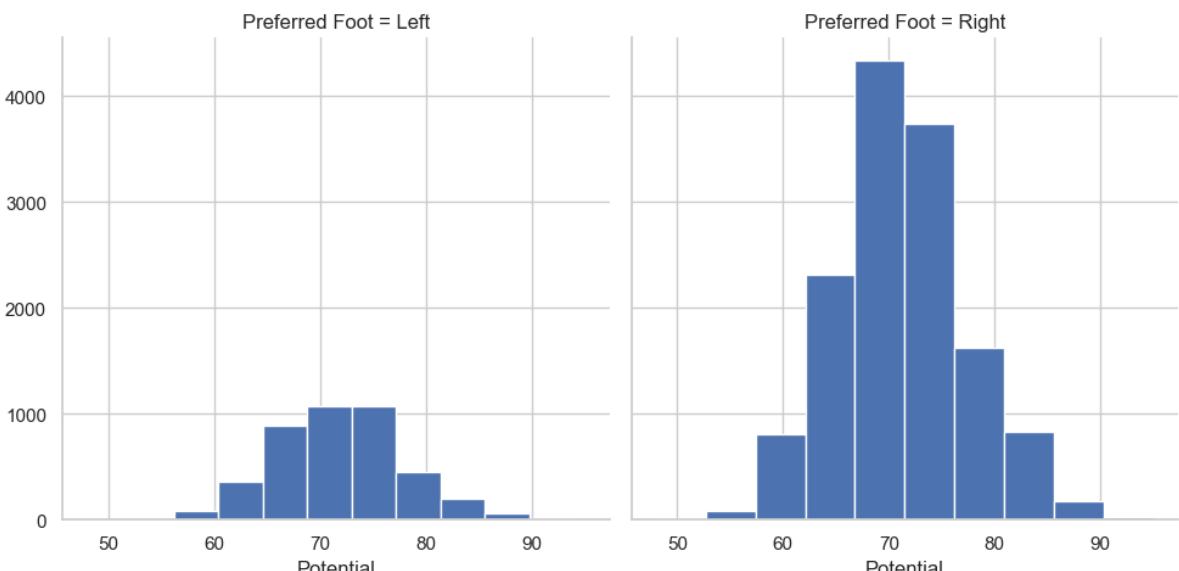
```
In [100...]: g = sns.FacetGrid(fifa19, col="Preferred Foot")
g = (g.map(plt.scatter, "Height", "Weight", edgecolor="w")).add_legend()
```



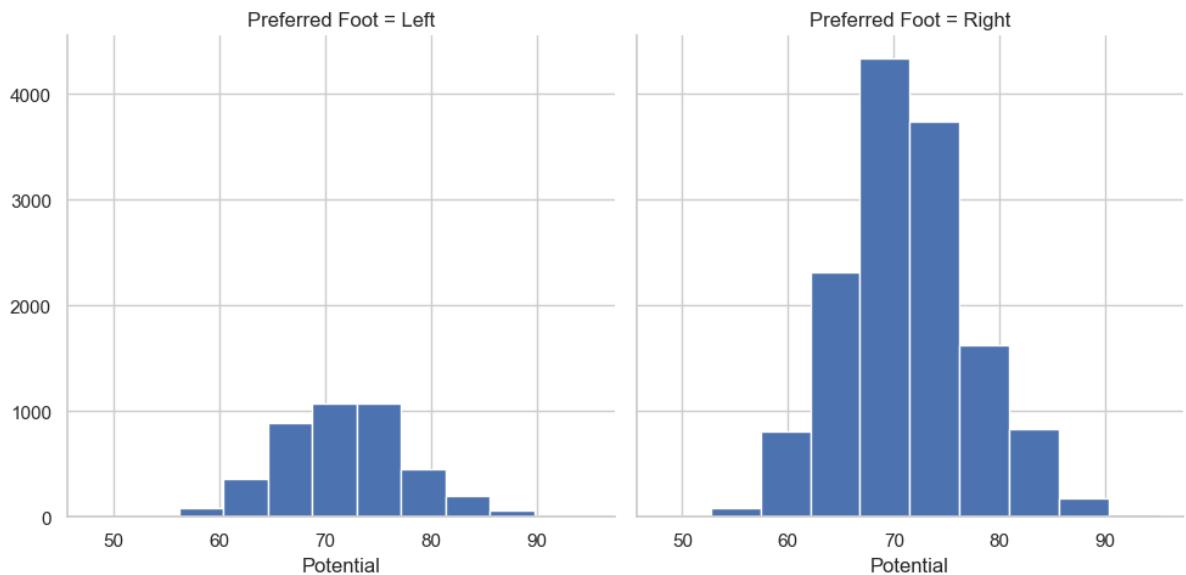
```
In [101...  
g = sns.FacetGrid(fifa19, col="Preferred Foot")  
g = (g.map(plt.scatter, "Height", "Weight").add_legend())
```



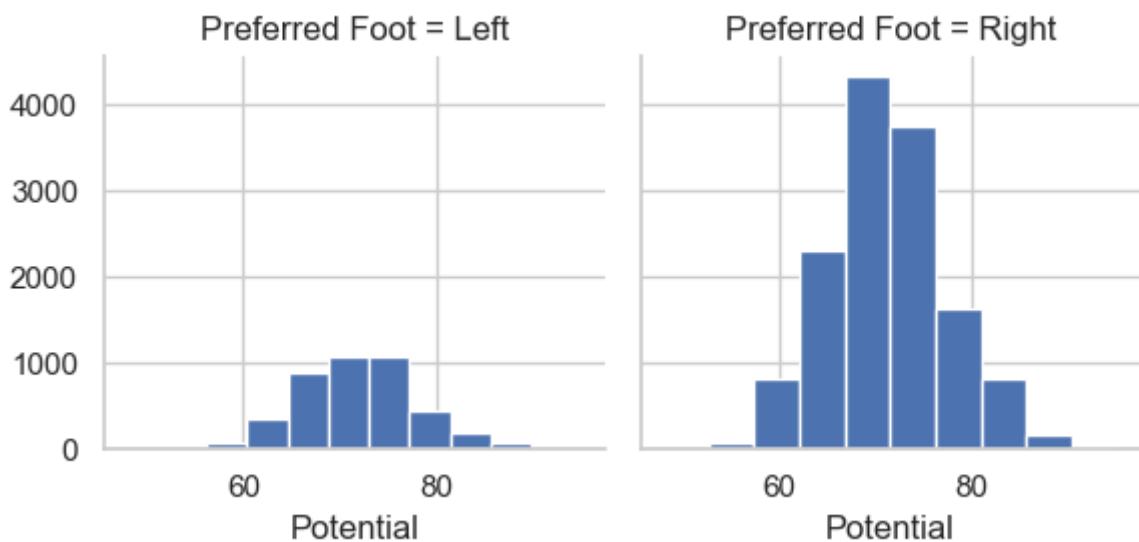
```
In [102...  
g = sns.FacetGrid(fifa19, col="Preferred Foot", height=5, aspect=1)  
g = g.map(plt.hist, "Potential")
```



```
In [103...  
g = sns.FacetGrid(fifa19, col="Preferred Foot", height=5, )  
g = g.map(plt.hist, "Potential")
```

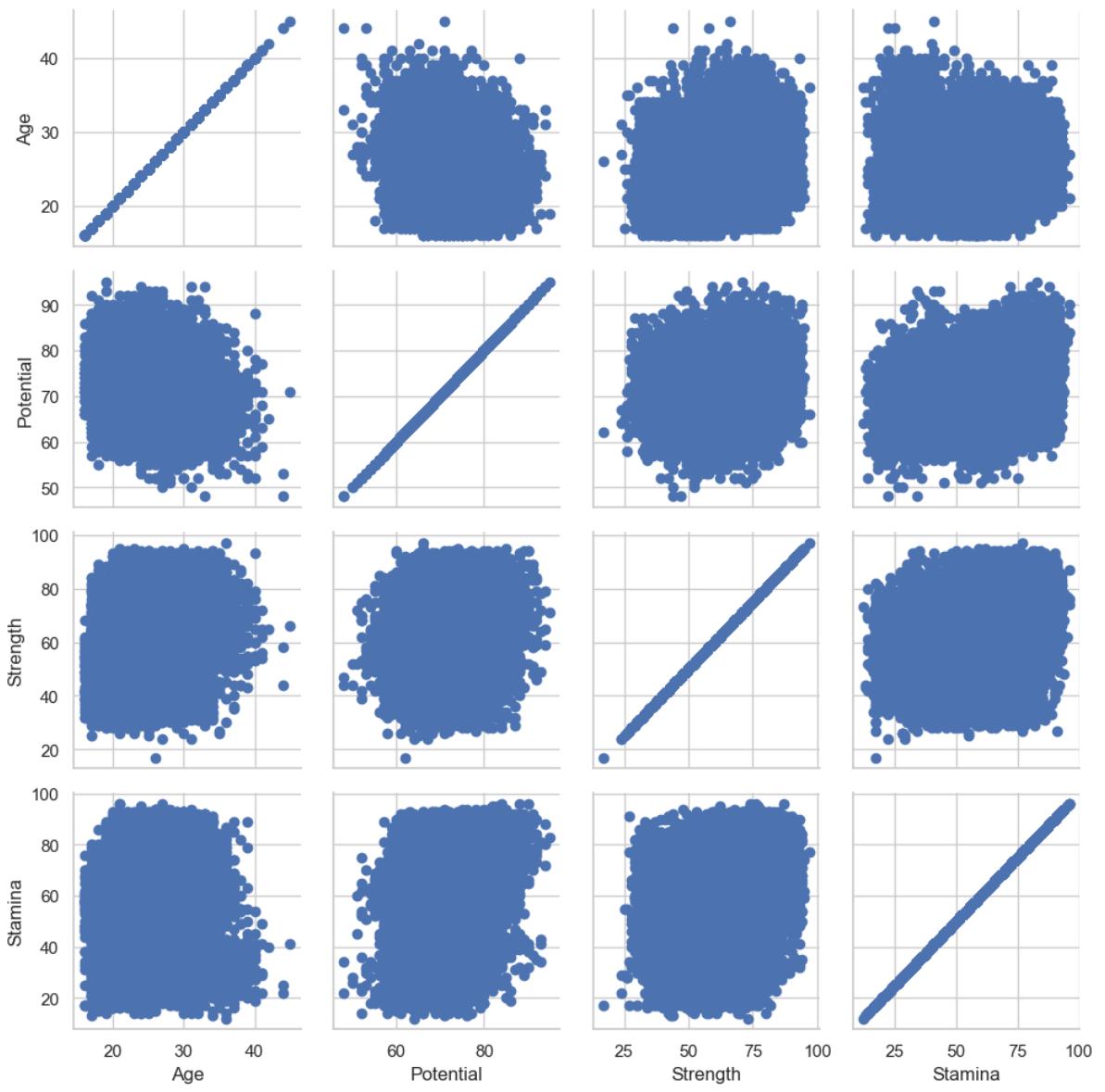


```
In [104...]: g = sns.FacetGrid(fifa19, col="Preferred Foot", aspect=1)
g = g.map(plt.hist, "Potential")
```

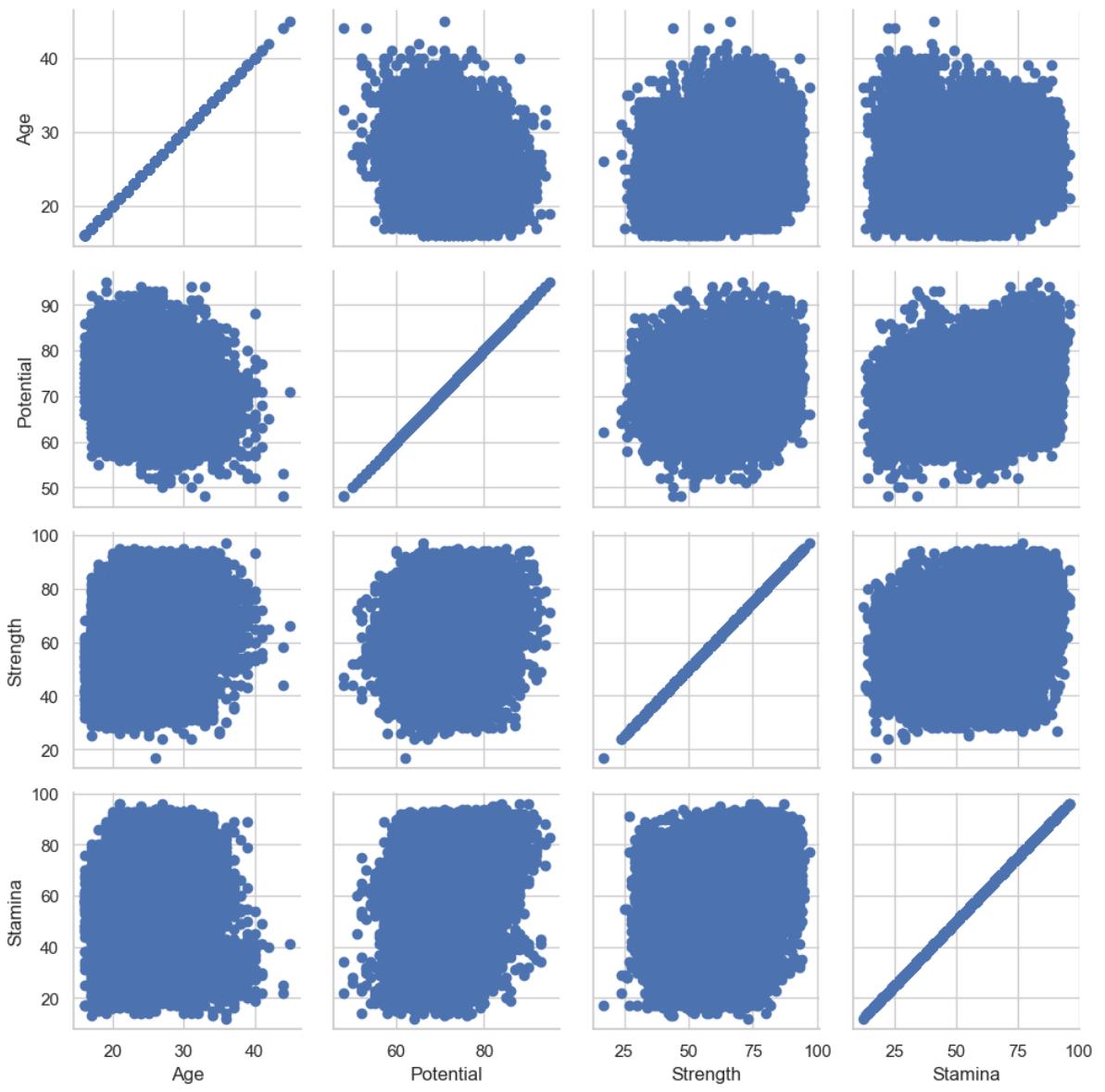


```
In [105...]: fifa19_new = fifa19[['Age', 'Potential', 'Strength', 'Stamina', 'Preferred Foot']]
```

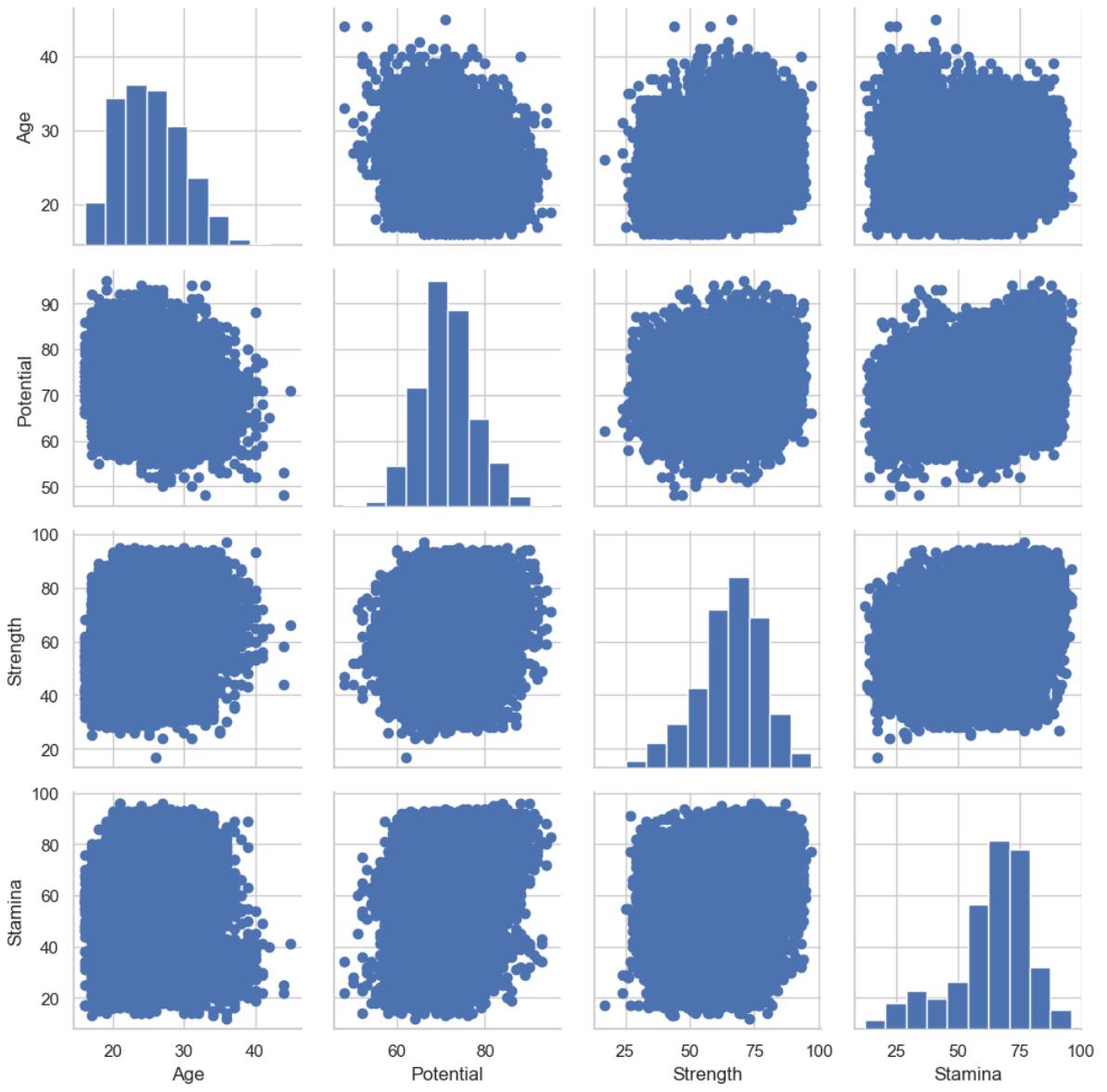
```
In [106...]: h = sns.PairGrid(fifa19_new)
h = h.map(plt.scatter)
```



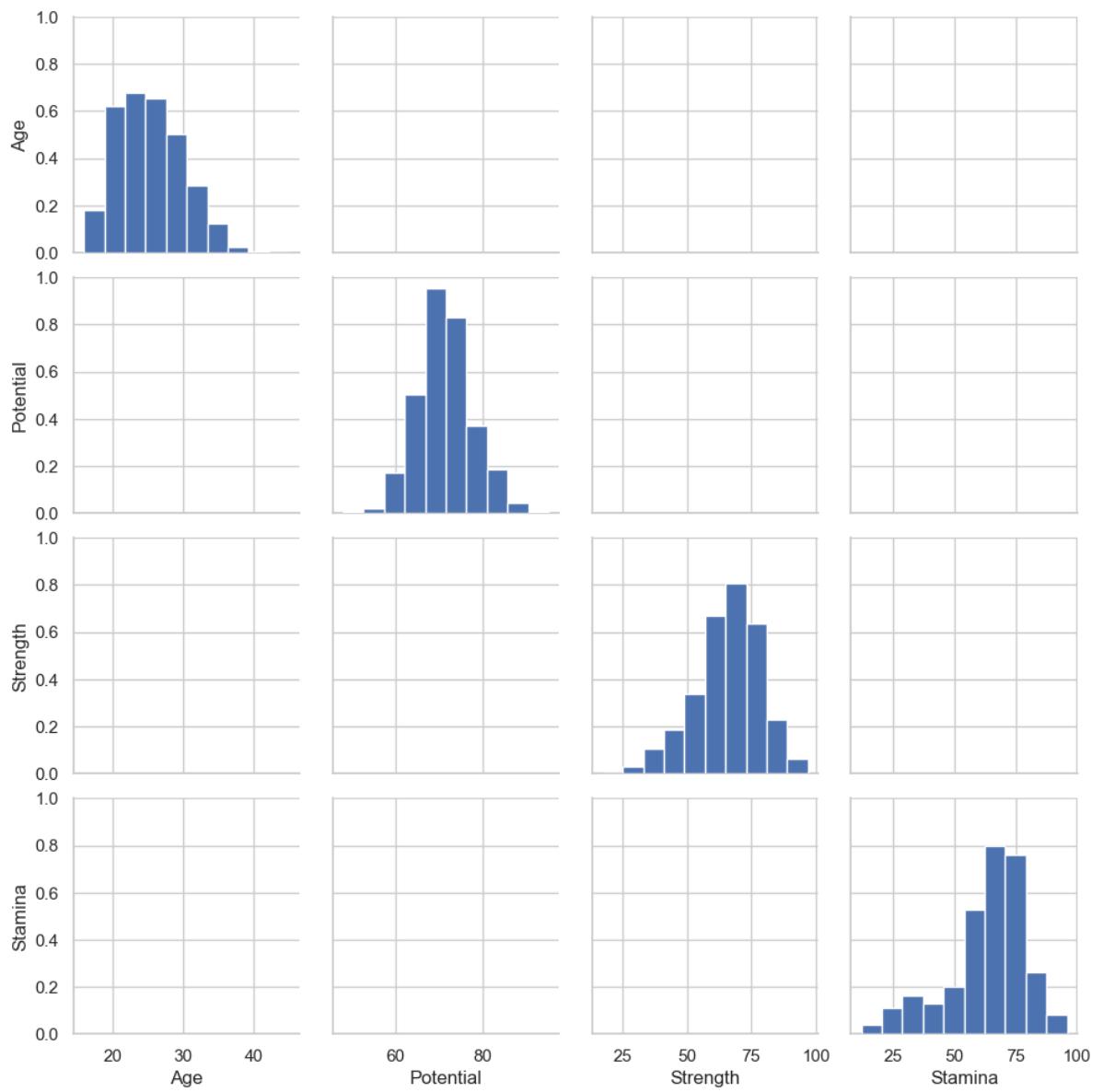
```
In [107...]:  
g = sns.PairGrid(fifa19_new)  
g = g.map(plt.scatter)
```



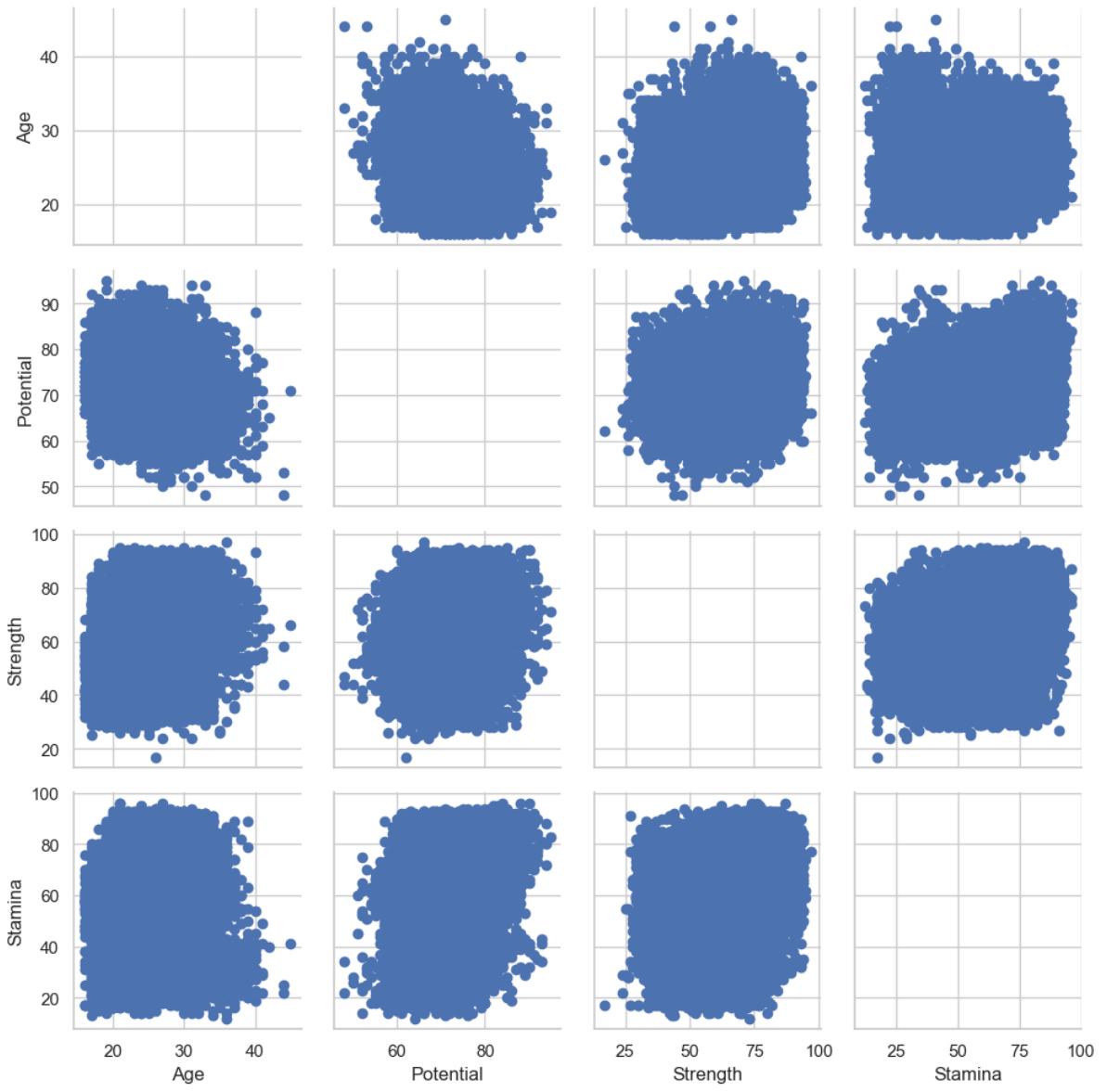
```
In [108...]:  
g = sns.PairGrid(fifa19_new)  
g = g.map_diag(plt.hist)  
g = g.map_offdiag(plt.scatter)
```



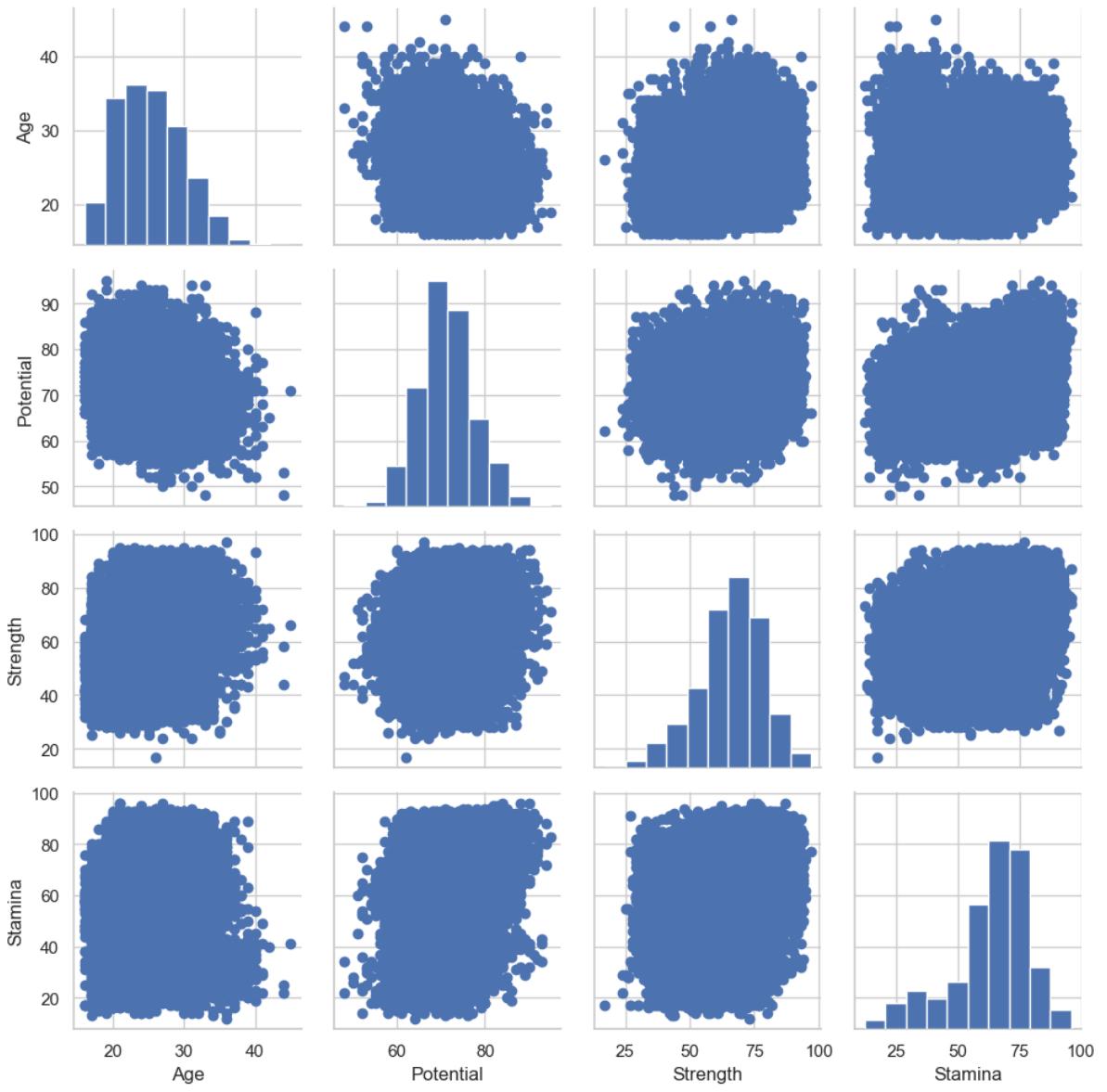
```
In [109...]:  
g = sns.PairGrid(fifa19_new)  
g = g.map_diag(plt.hist)
```



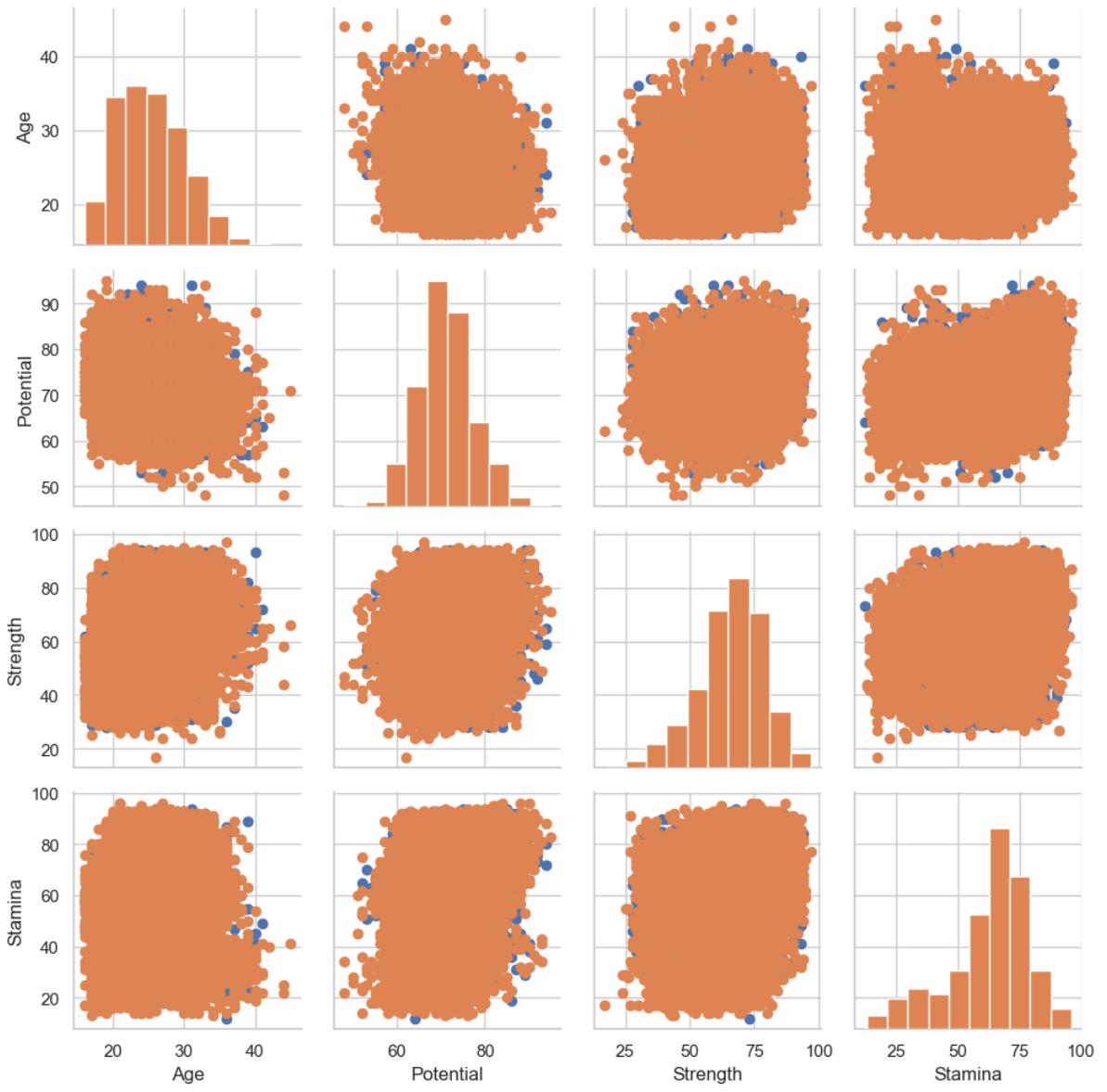
```
In [110]:  
g = sns.PairGrid(fifa19_new)  
g = g.map_offdiag(plt.scatter)
```



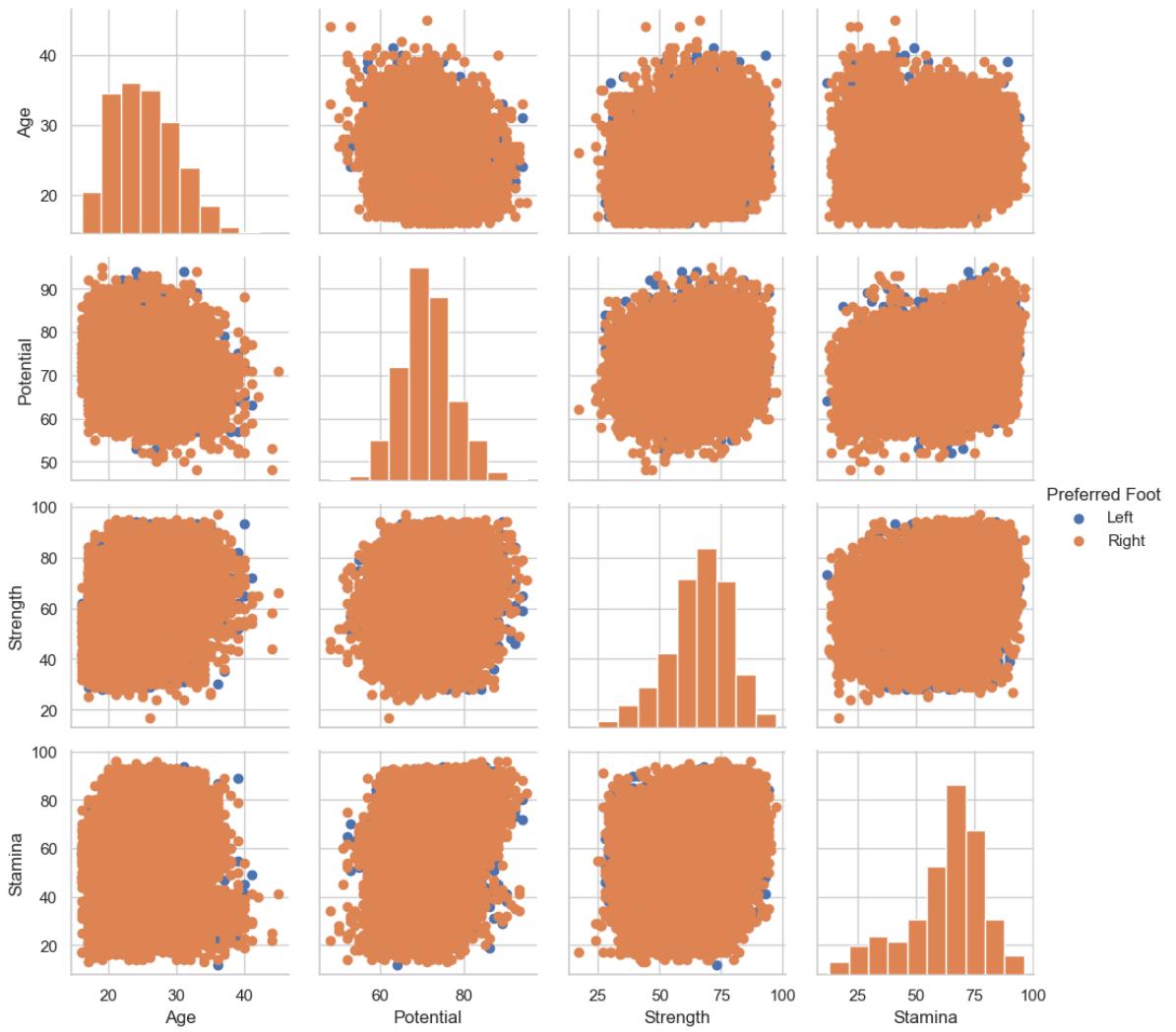
```
In [111]:  
g = sns.PairGrid(fifa19_new)  
g = g.map_diag(plt.hist)  
g = g.map_offdiag(plt.scatter)
```



```
In [112]:  
g = sns.PairGrid(fifa19_new, hue="Preferred Foot")  
g = g.map_diag(plt.hist)  
g = g.map_offdiag(plt.scatter)
```



```
In [113]:  
g = sns.PairGrid(fifa19_new, hue="Preferred Foot")  
g = g.map_diag(plt.hist)  
g = g.map_offdiag(plt.scatter)  
g = g.add_legend()
```

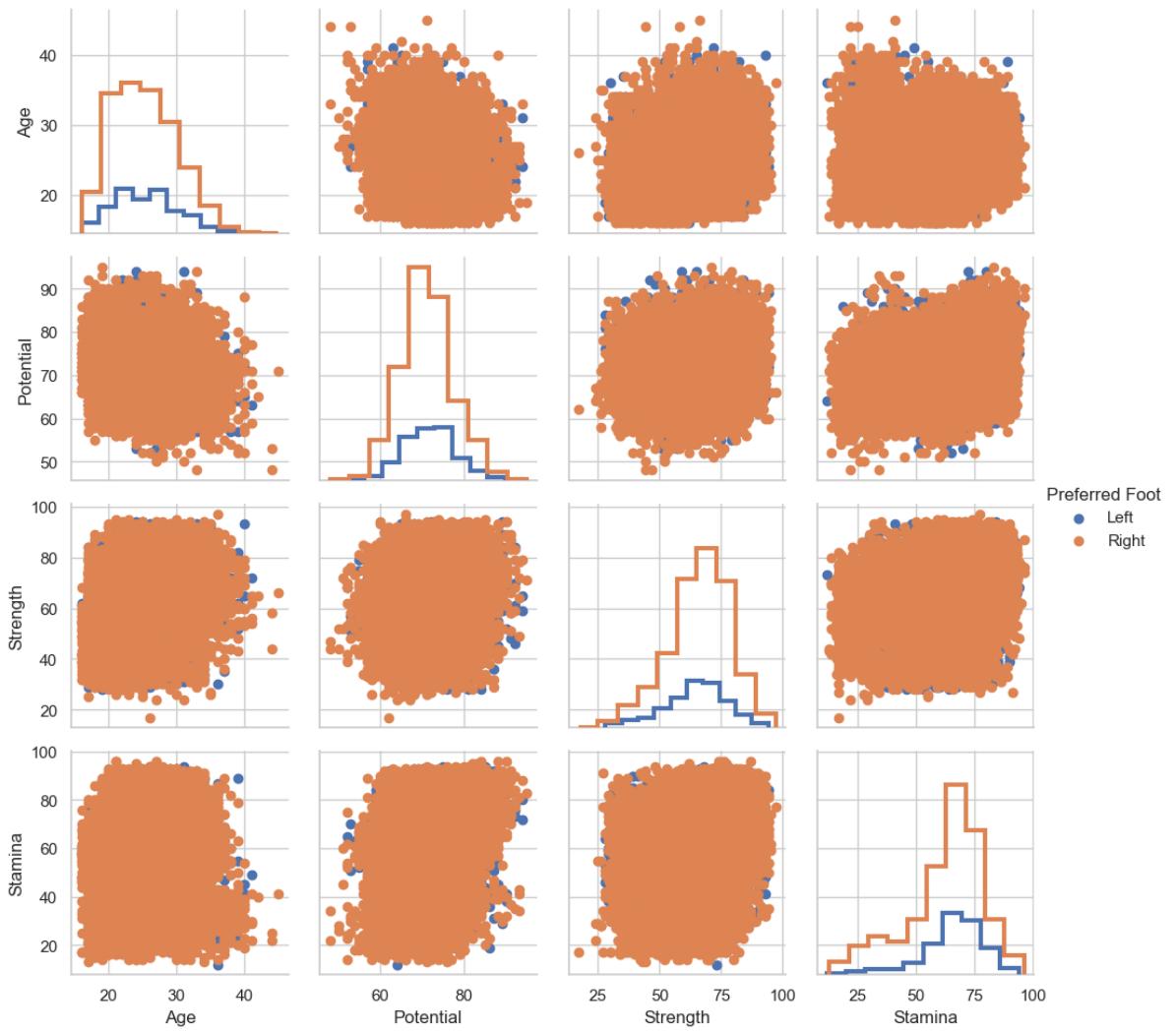


In [114]:

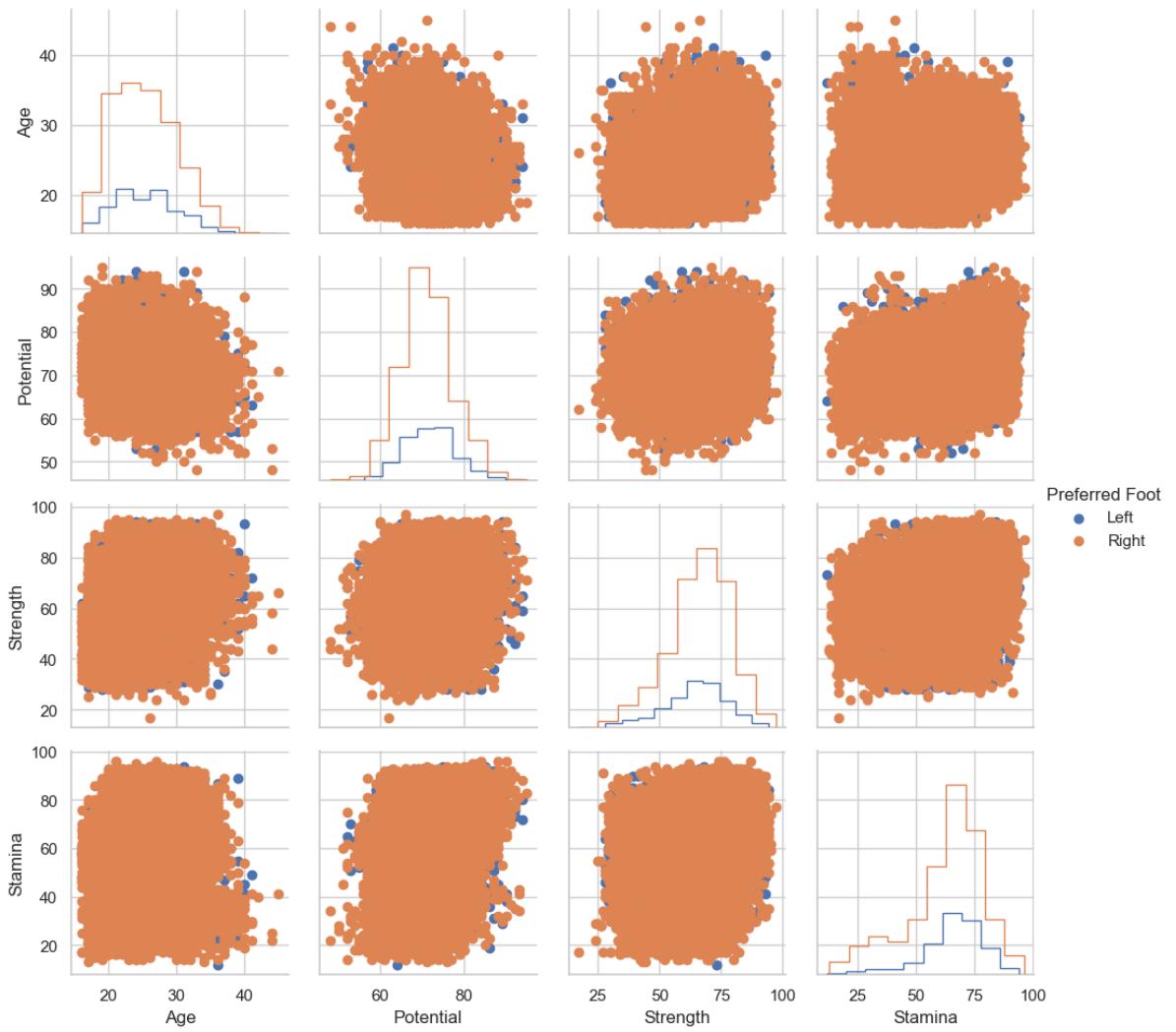
```

g = sns.PairGrid(fifa19_new, hue="Preferred Foot")
g = g.map_diag(plt.hist, histtype="step", linewidth=3)
g = g.map_offdiag(plt.scatter)
g = g.add_legend()

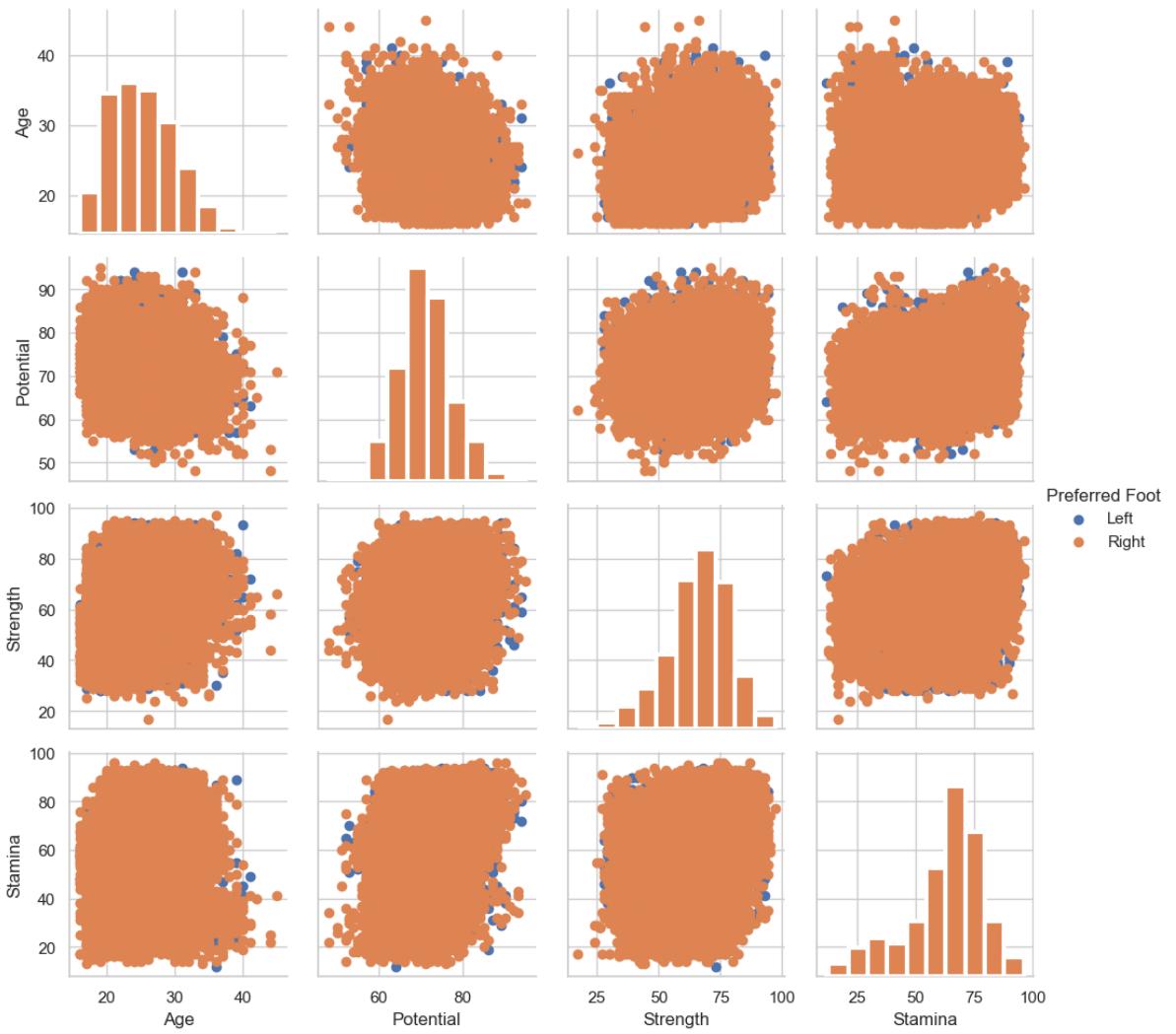
```



```
In [115]:  
g = sns.PairGrid(fifa19_new, hue="Preferred Foot")  
g = g.map_diag(plt.hist, histtype="step")  
g = g.map_offdiag(plt.scatter)  
g = g.add_legend()
```



```
In [116]:  
g = sns.PairGrid(fifa19_new, hue="Preferred Foot")  
g = g.map_diag(plt.hist, linewidth=3)  
g = g.map_offdiag(plt.scatter)  
g = g.add_legend()
```

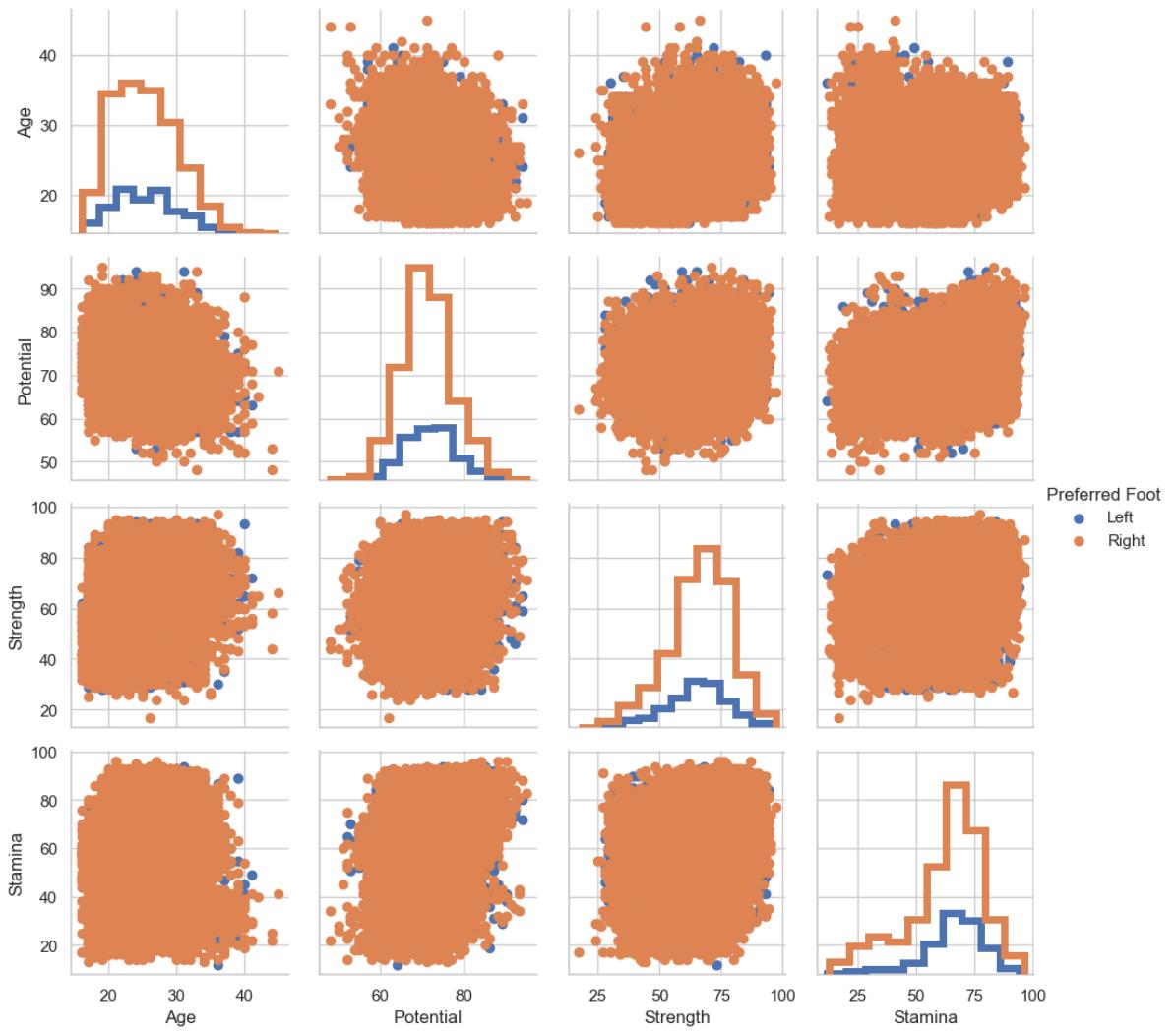


In [117]:

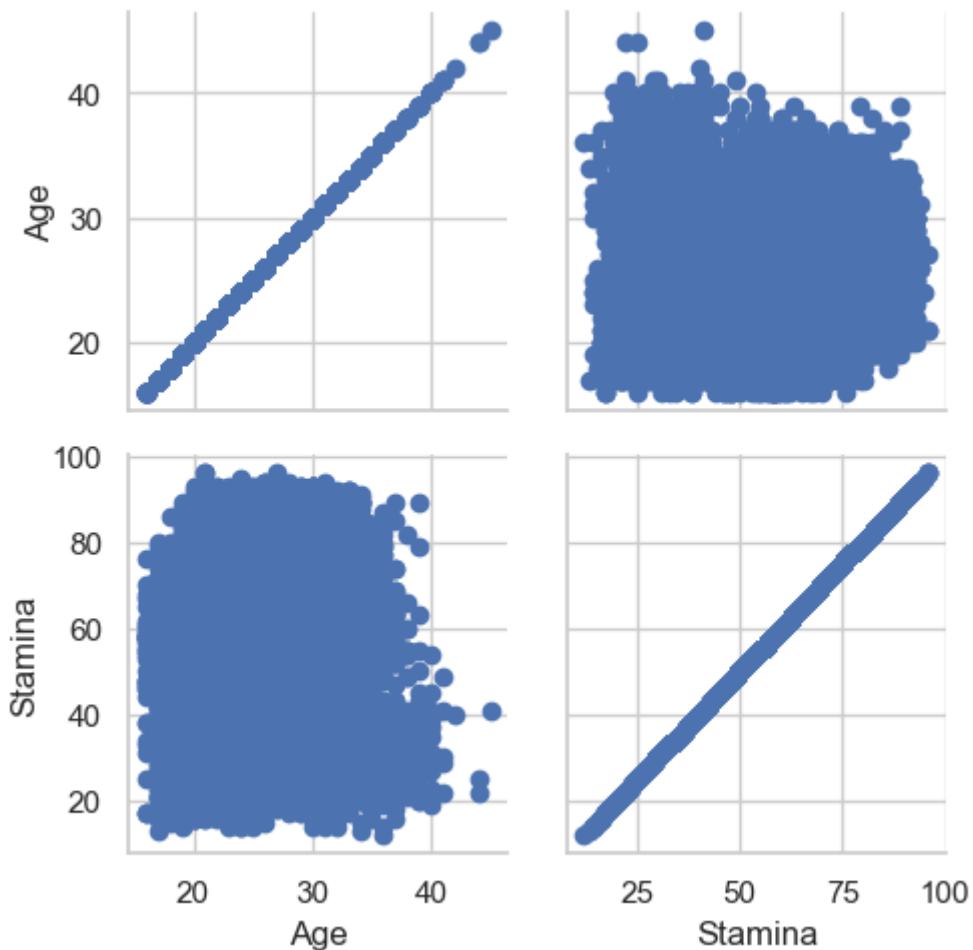
```

g = sns.PairGrid(fifa19_new, hue="Preferred Foot")
g = g.map_diag(plt.hist, histtype="step", linewidth=5)
g = g.map_offdiag(plt.scatter)
g = g.add_legend()

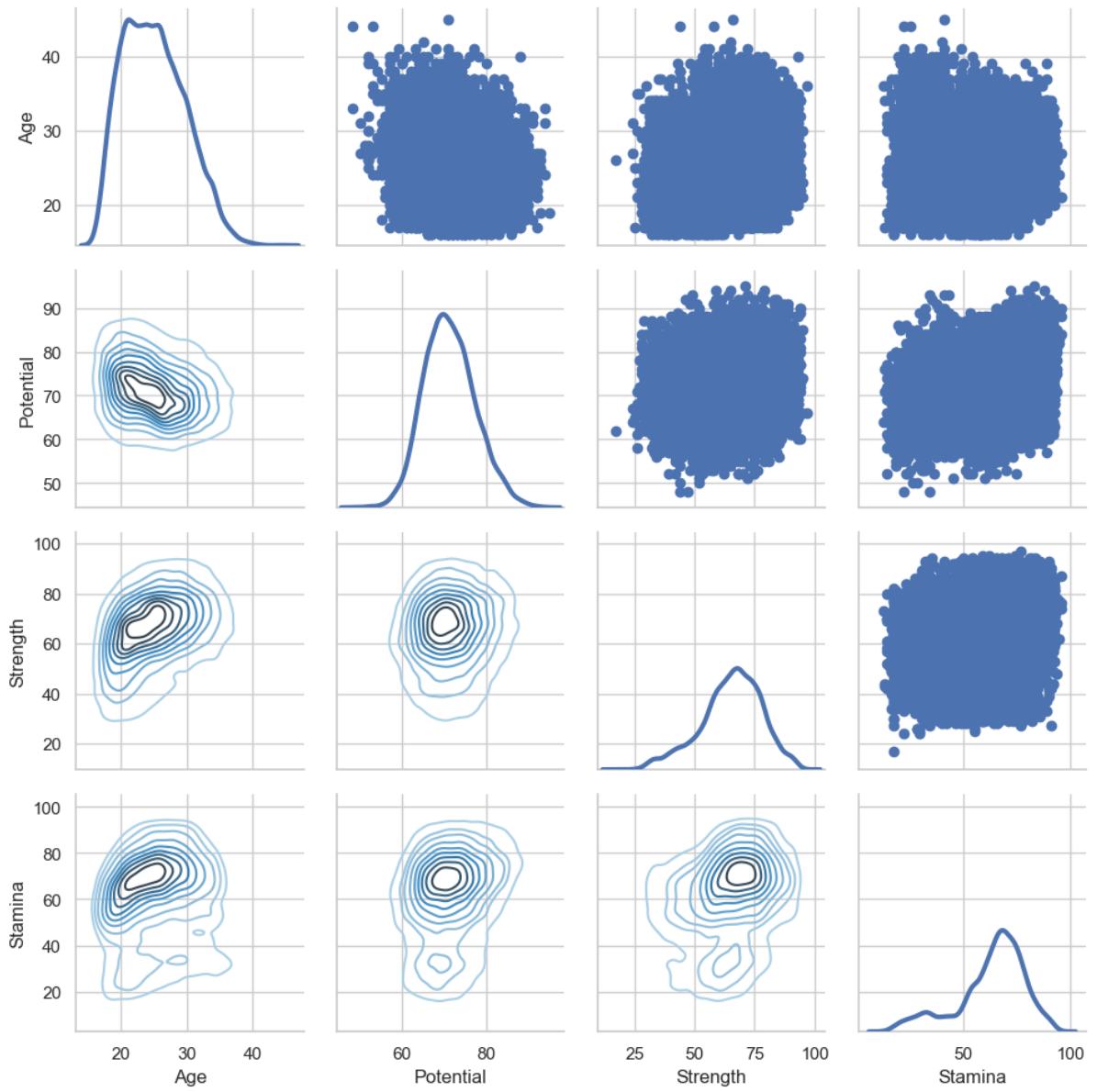
```



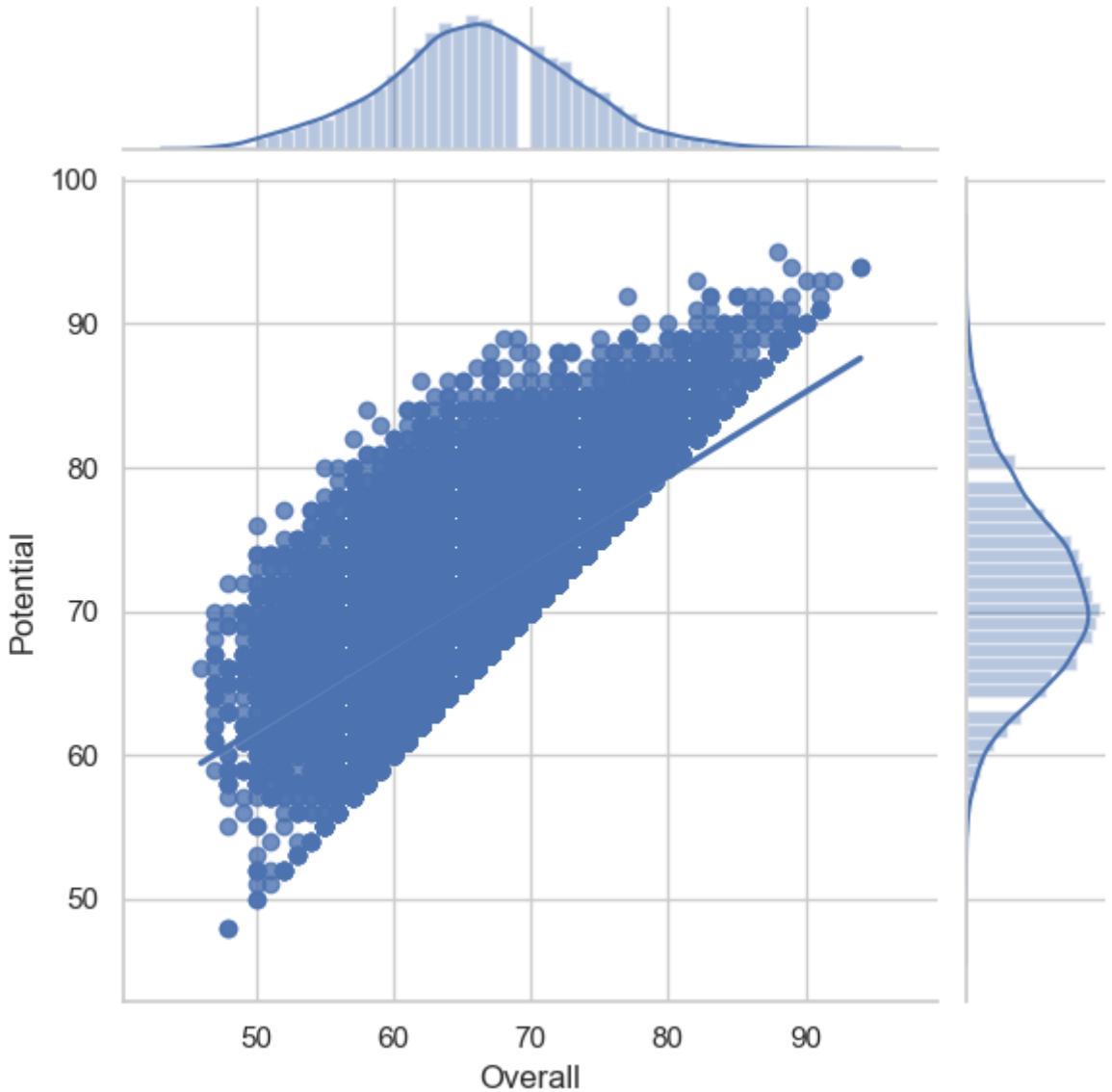
```
In [118]:  
g = sns.PairGrid(fifa19_new, vars=['Age', 'Stamina'])  
g.map(plt.scatter)
```



```
In [119]:  
g = sns.PairGrid(fifa19_new)  
g = g.map_upper(plt.scatter)  
g = g.map_lower(sns.kdeplot, cmap="Blues_d")  
g = g.map_diag(sns.kdeplot, lw=3, legend=False)
```

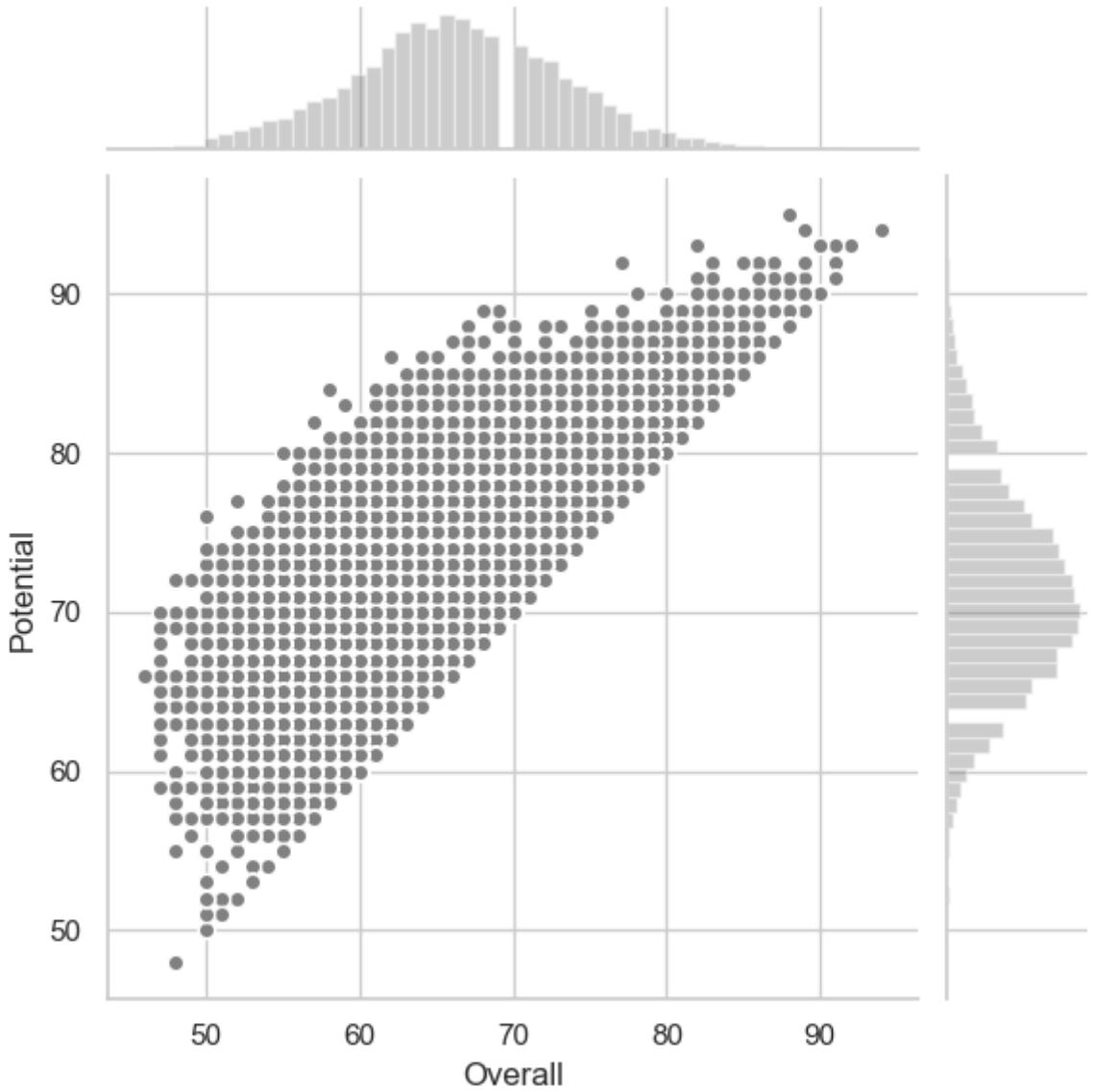


```
In [120]: g = sns.JointGrid(x="Overall", y="Potential", data=fifa19)
g = g.plot(sns.regplot, sns.distplot)
```

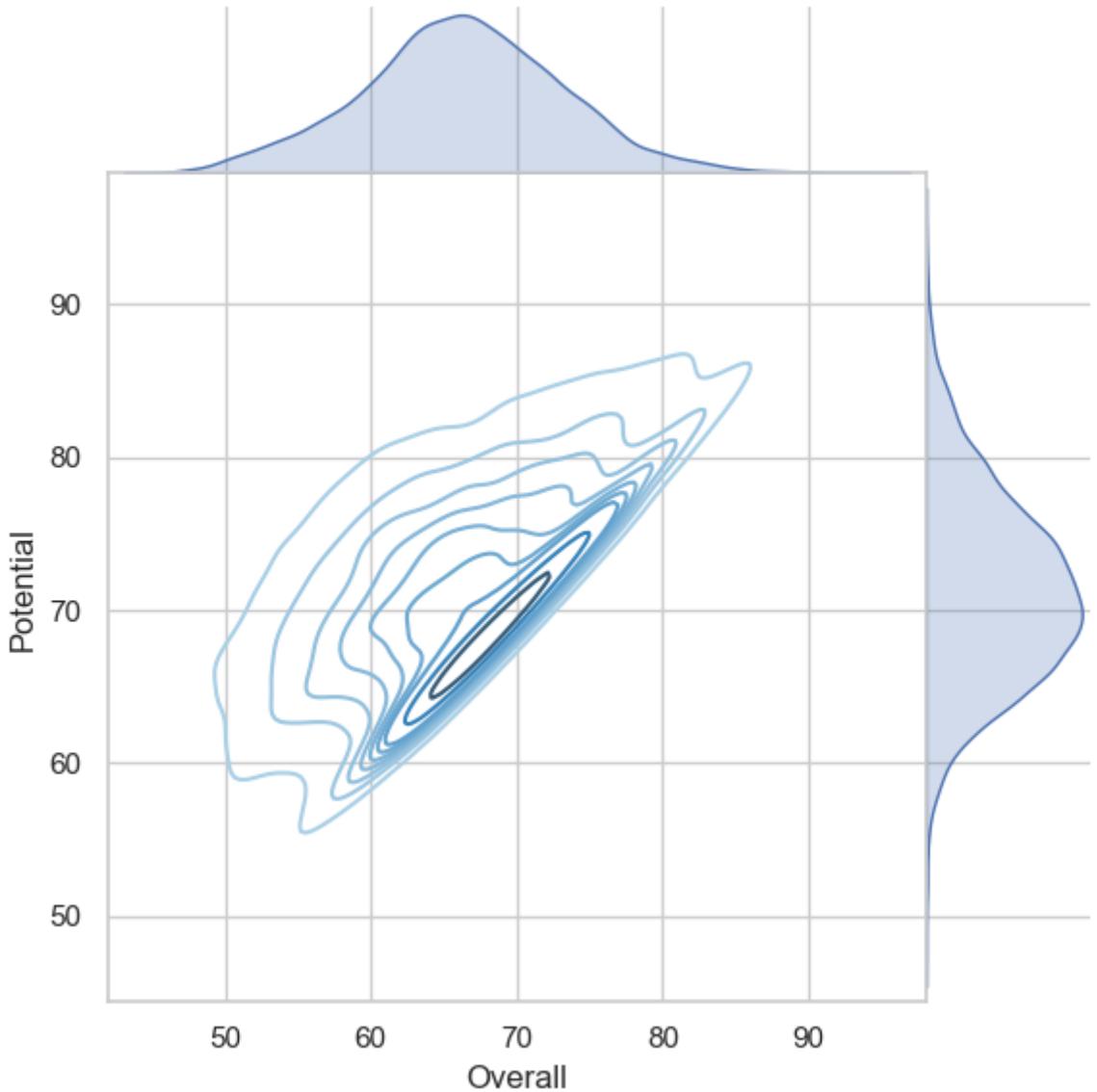


```
In [121]: import matplotlib.pyplot as plt
```

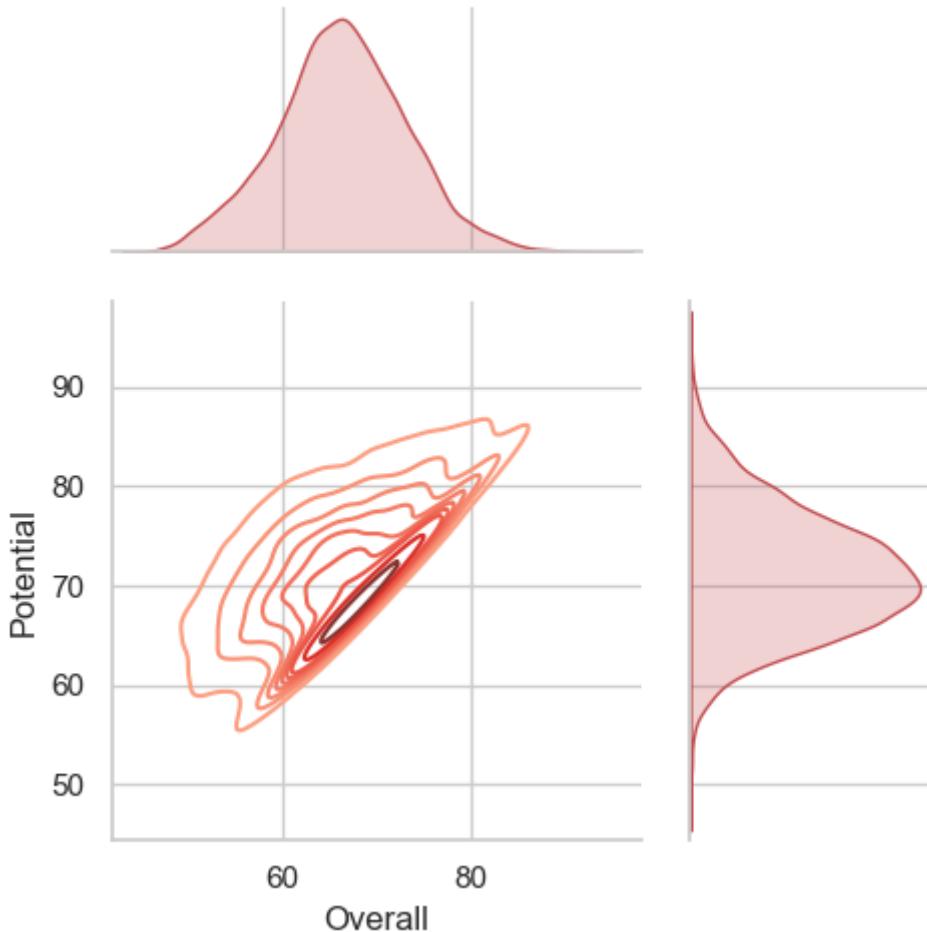
```
In [122]: g = sns.JointGrid(x="Overall", y="Potential", data=fifa19)
g = g.plot_joint(plt.scatter, color=".5", edgecolor="white")
g = g.plot_marginals(sns.distplot, kde=False, color=".5")
```



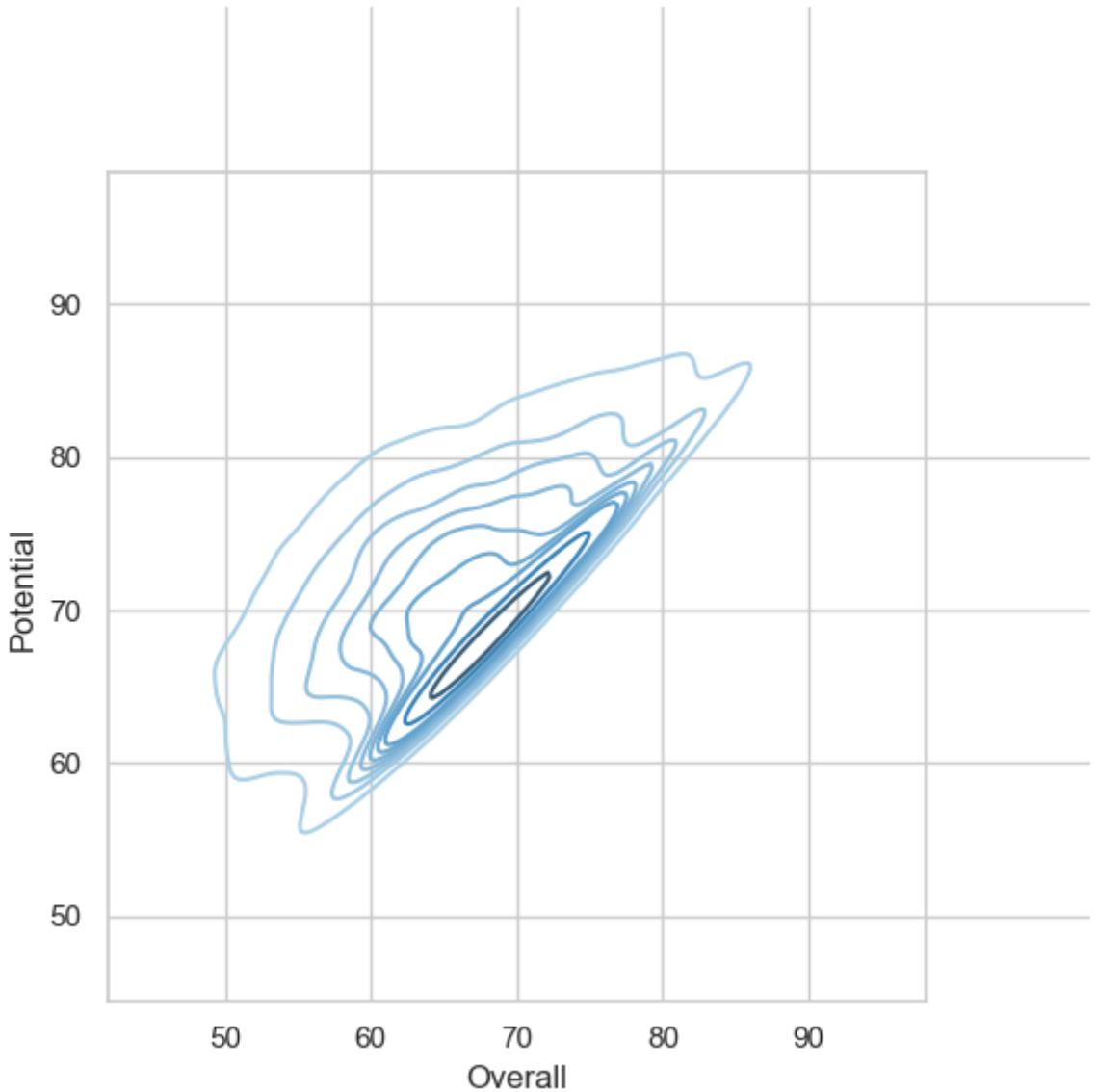
```
In [123]:  
g = sns.JointGrid(x="Overall", y="Potential", data=fifa19, space=0)  
g = g.plot_joint(sns.kdeplot, cmap="Blues_d")  
g = g.plot_marginals(sns.kdeplot, shade=True)
```



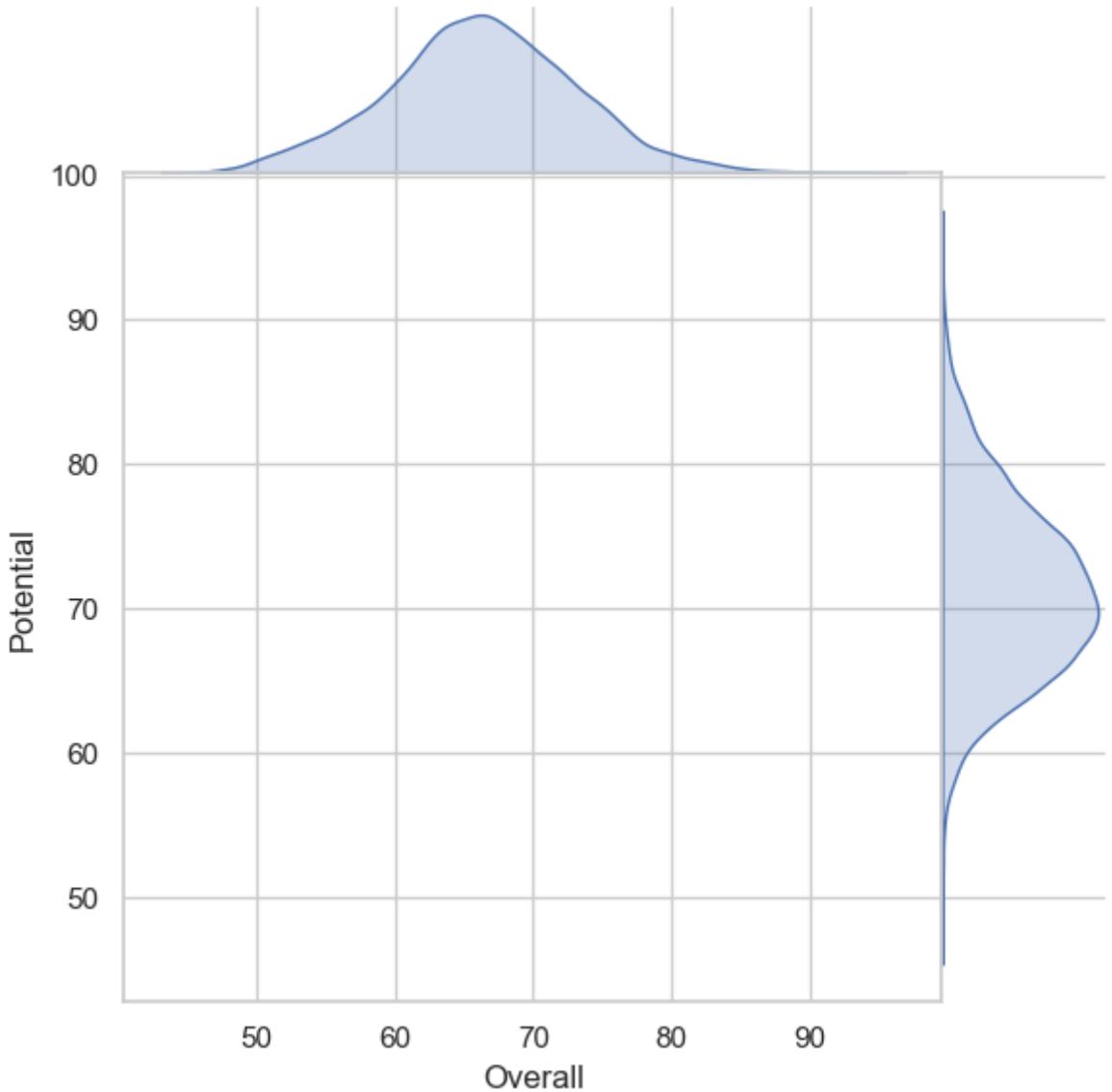
```
In [124]:  
g = sns.JointGrid(x="Overall", y="Potential", data=fifa19, height=5, ratio=2)  
g = g.plot_joint(sns.kdeplot, cmap="Reds_d")  
g = g.plot_marginals(sns.kdeplot, color="r", shade=True)
```



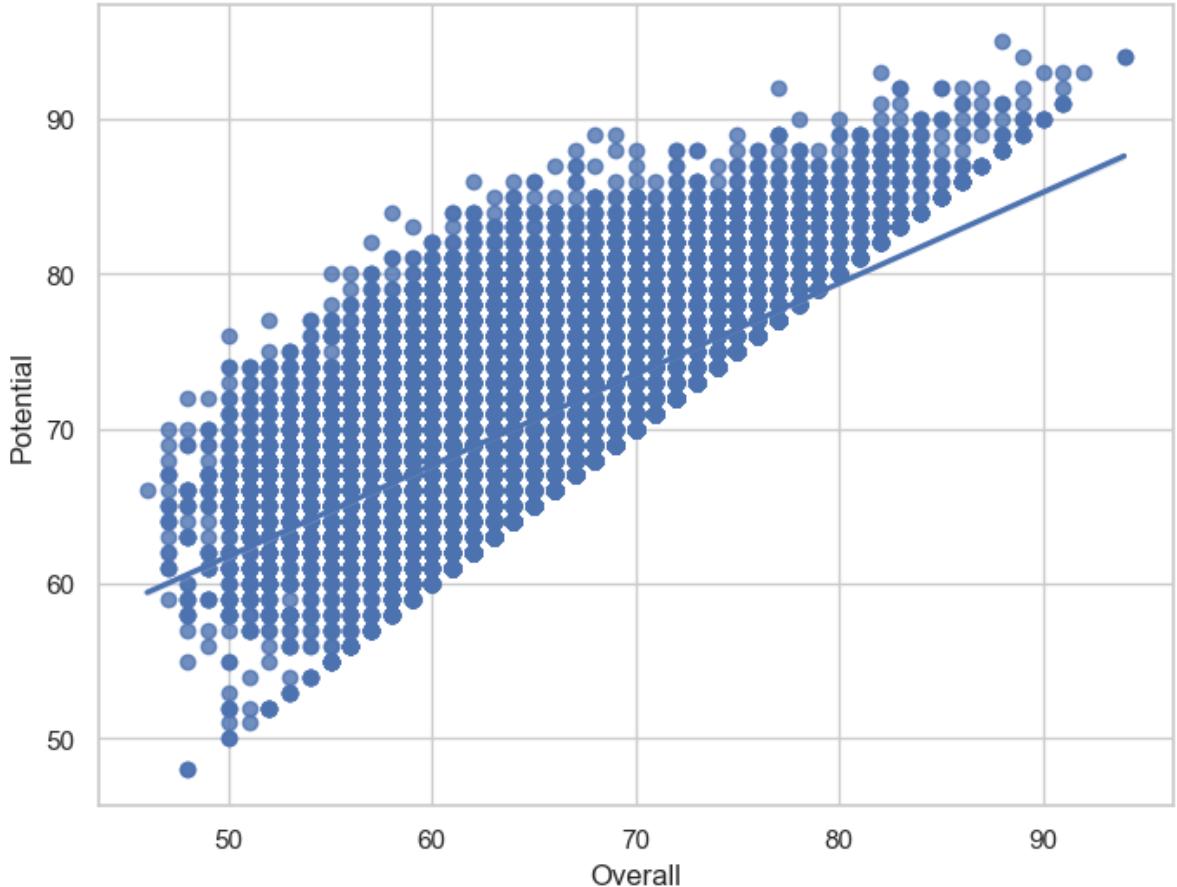
```
In [125]: g = sns.JointGrid(x="Overall", y="Potential", data=fifa19, space=0)
g = g.plot_joint(sns.kdeplot, cmap="Blues_d")
```



```
In [126]: g = sns.JointGrid(x="Overall", y="Potential", data=fifa19, space=0)
g = g.plot_marginals(sns.kdeplot, shade=True)
```

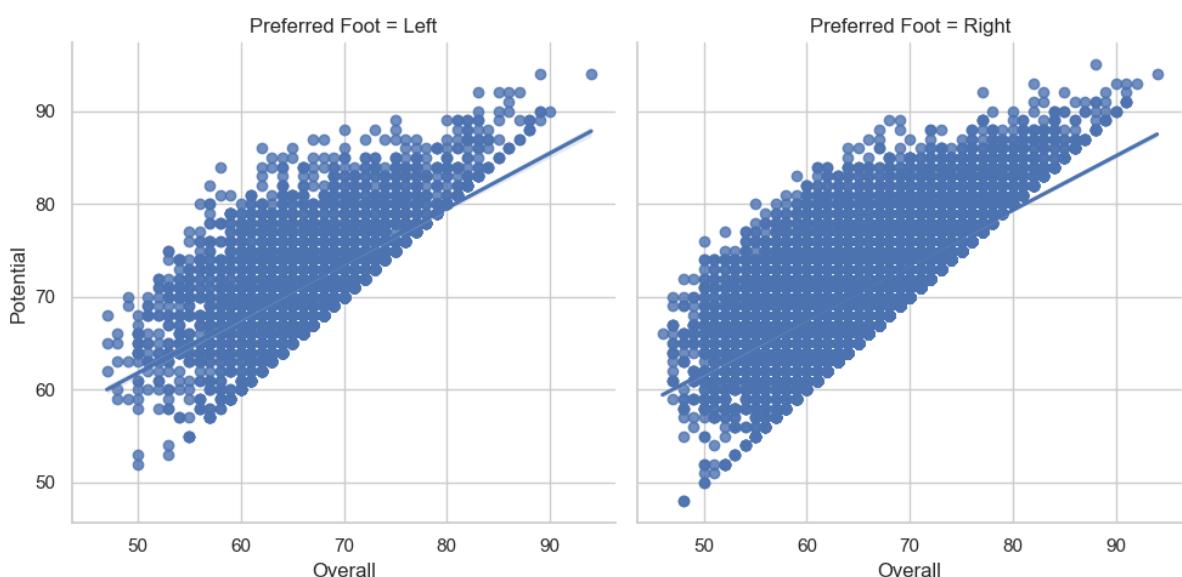


```
In [127]: f, ax = plt.subplots(figsize=(8, 6))
ax = sns.regplot(x="Overall", y="Potential", data=fifa19);
```



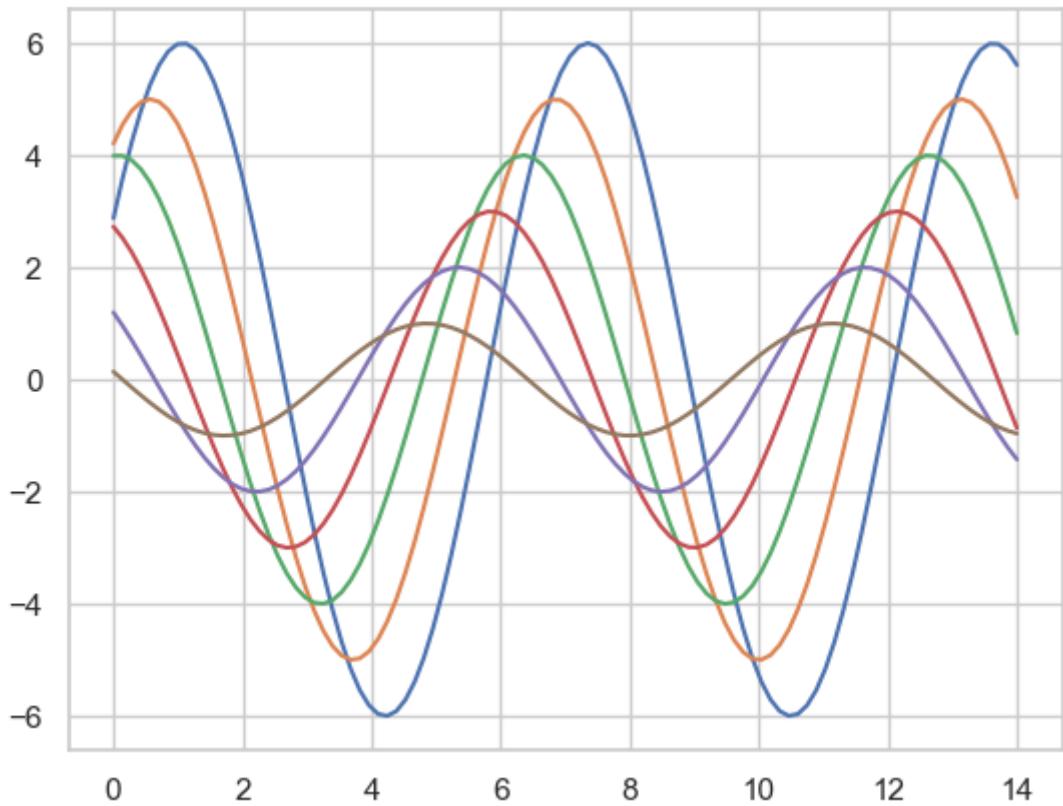
```
In [128]: sns.lmplot(x="Overall", y="Potential", col="Preferred Foot", data=fifa19, col_wrap=
```

```
Out[128]: <seaborn.axisgrid.FacetGrid at 0x215a6d6b810>
```

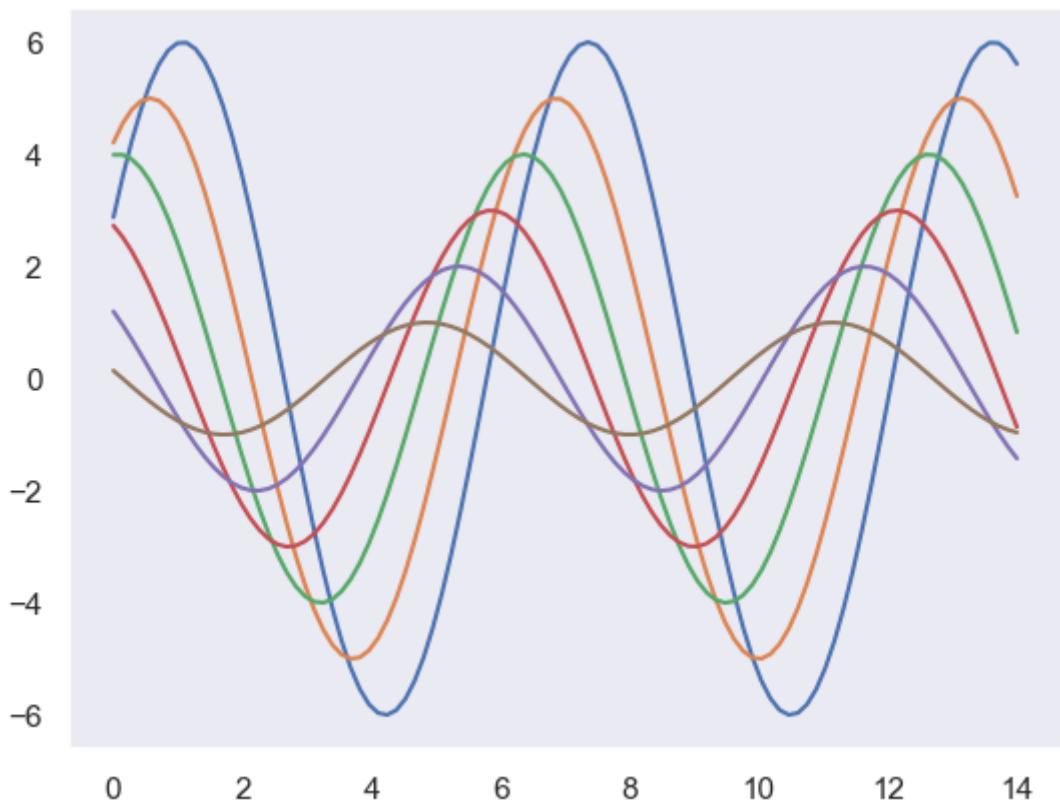


```
In [129... def sinplot(flip=1):
    x = np.linspace(0, 14, 100)
    for i in range(1, 7):
        plt.plot(x, np.sin(x + i * .5) * (7 - i) * flip)
```

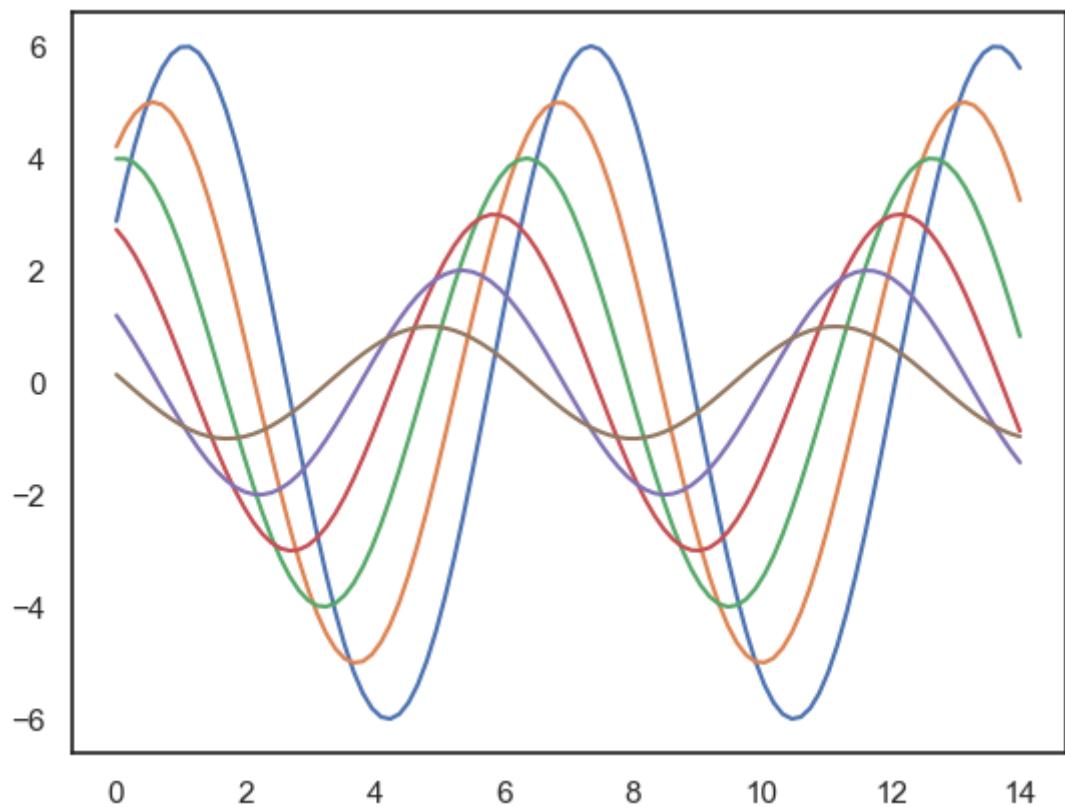
```
In [130... sns.set_style("whitegrid")
sinplot()
```



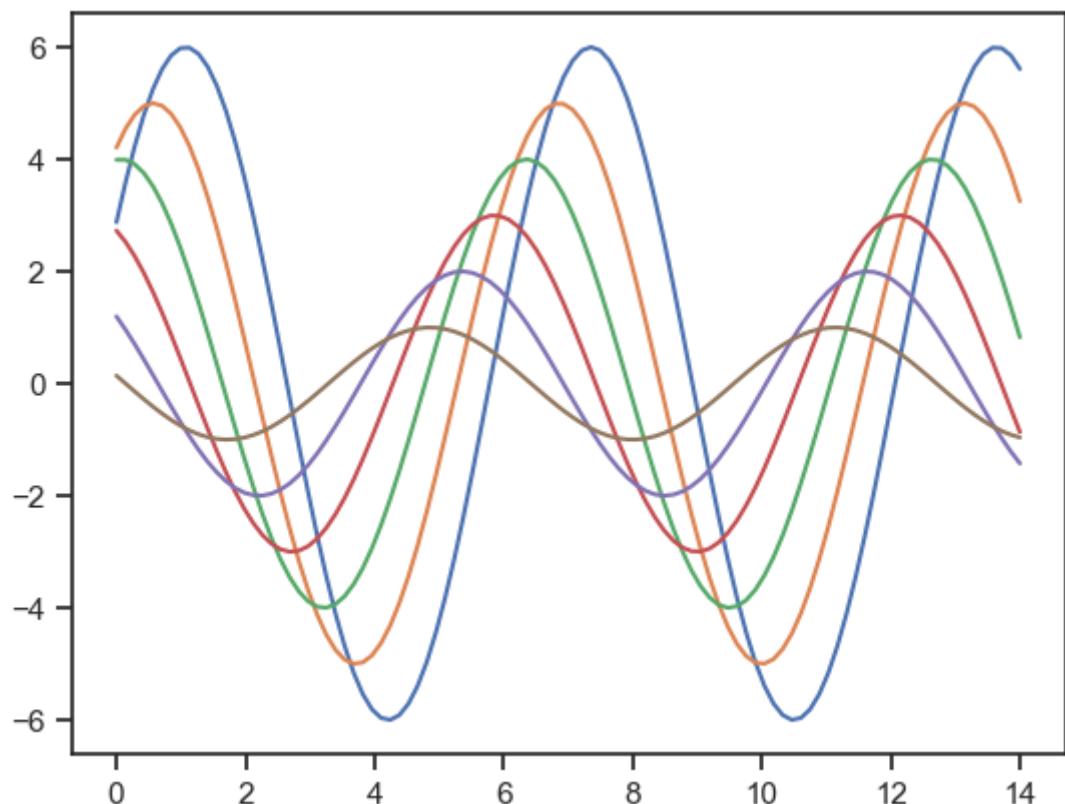
```
In [131...]: sns.set_style("dark")
         sinplot()
```



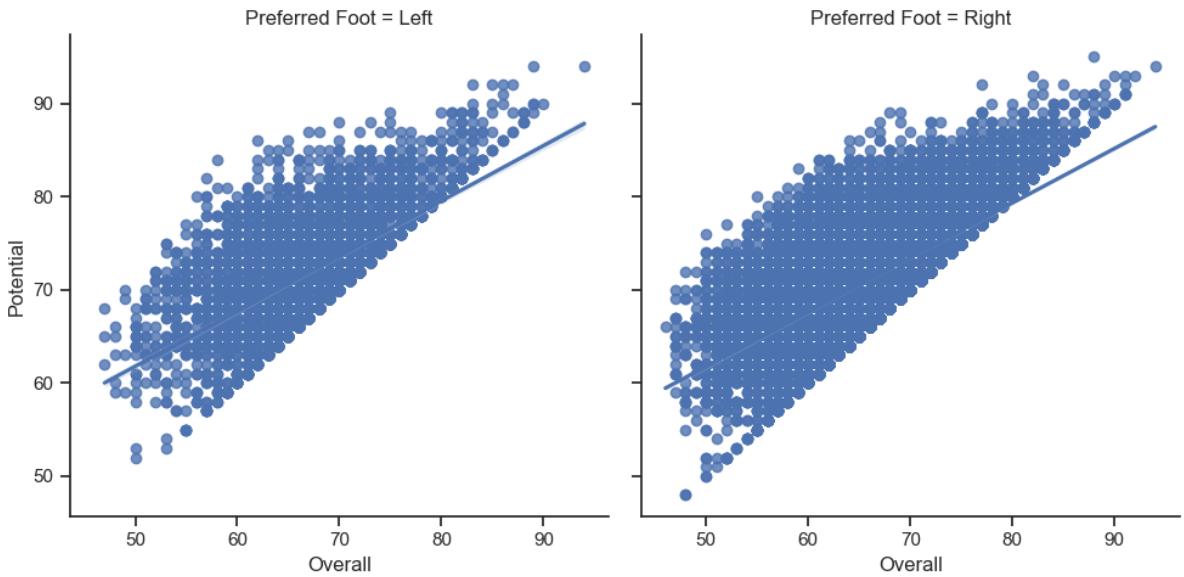
```
In [132...]: sns.set_style("white")
         sinplot()
```



```
In [133...]: sns.set_style("ticks")
snsplot()
```

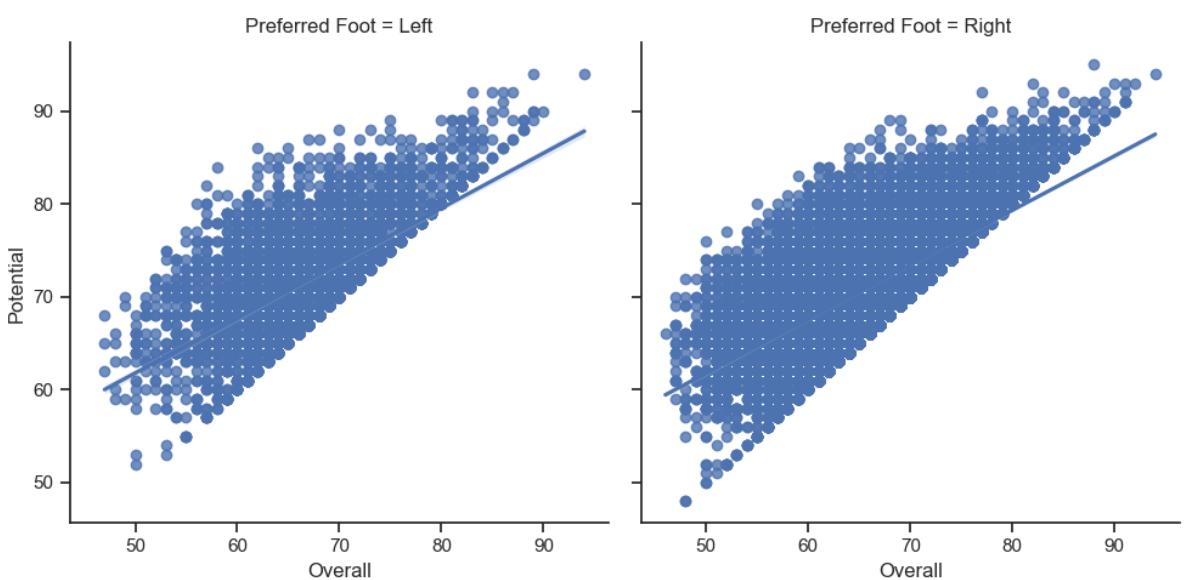


```
In [134...]: sns.lmplot(x="Overall", y="Potential", col="Preferred Foot", data=fifa19, height=5)
Out[134]: <seaborn.axisgrid.FacetGrid at 0x215a6dea110>
```



```
In [135]: sns.lmplot(x="Overall", y="Potential", col="Preferred Foot", data=fifa19, col_wrap=
```

```
Out[135]: <seaborn.axisgrid.FacetGrid at 0x215a33b3590>
```



```
In [136]: sns.lmplot(x="Overall", y="Potential", col="Preferred Foot", data=fifa19)
```

```
Out[136]: <seaborn.axisgrid.FacetGrid at 0x215a3341450>
```

