DWM EXP4: Data Visualisation

AIM: Given a case study with a data set. You are expected to perform data visualization using Python/R any five different chart/plot. Quote your observations after the visualization.

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In [1]:
```
import pandas as pd
import seaborn as sns
import matplotlib.pyplot as plt
import numpy as np
```

In [2]:
```
df=pd.read_csv('preprocessed_dataset.csv')
```

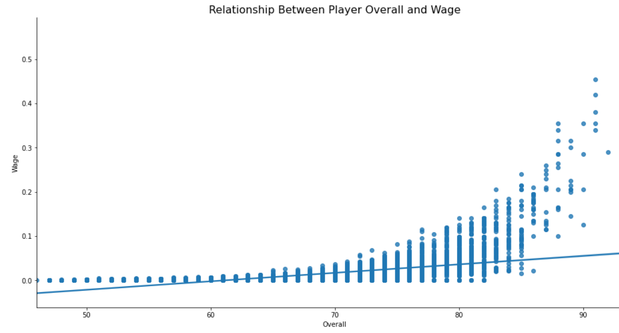
In [3]:
```
df.head()
```

Out[3]:

	Unnamed: 0	Age	Overall	Potential	Value	Wage	Special	Preferred Foot	International Reputation	Weak Foot	...	Composure	Marking	StandingTackle	Sl
0	0	31	94	94	110.5	0.565	2202	0.0	5.0	4.0	...	96.0	33.0	28.0	
1	1	33	94	94	77.0	0.405	2228	1.0	5.0	4.0	...	95.0	28.0	31.0	
2	2	26	92	93	118.5	0.290	2143	1.0	5.0	5.0	...	94.0	27.0	24.0	
3	4	27	91	92	102.0	0.355	2281	1.0	4.0	5.0	...	88.0	68.0	58.0	
4	5	27	91	91	93.0	0.340	2142	1.0	4.0	4.0	...	91.0	34.0	27.0	

5 rows × 77 columns

In [5]:
```
plt.figure(figsize=(16, 8))
sns.regplot(x='Overall', y='Wage', data=df)
plt.title('Relationship Between Player Overall and Wage', fontsize=16)
plt.ylabel('Wage')
plt.xlabel('Overall')
sns.despine()
plt.show()
```

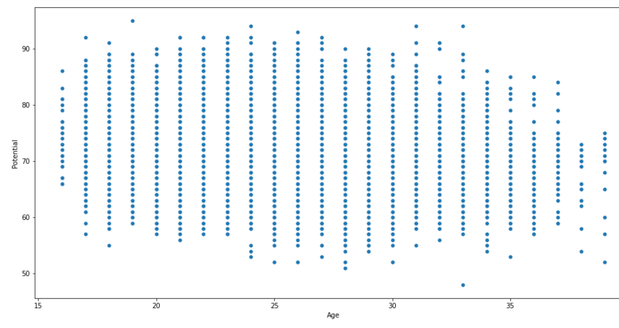


In [6]:
```
pd.set_option('display.max_columns', None)
pd.set_option('display.max_rows', None)
df.head()
```

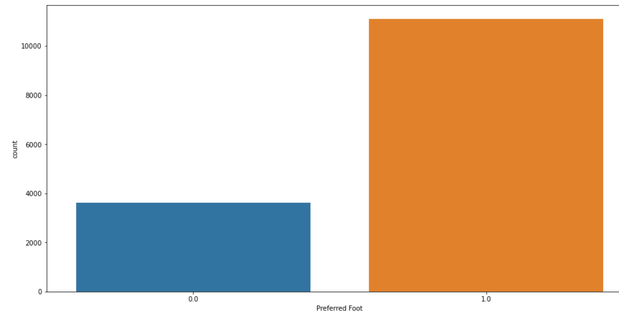
Out[6]:

	Unnamed: 0	Age	Overall	Potential	Value	Wage	Special	Preferred Foot	International Reputation	Weak Foot	Skill Moves	Work Rate	Position	Contract Valid Until	Height	W
0	0	31	94	94	110.5	0.565	2202	0.0	5.0	4.0	4.0	1	RF	2021	67.0	
1	1	33	94	94	77.0	0.405	2228	1.0	5.0	4.0	5.0	6	ST	2022	74.0	
2	2	26	92	93	118.5	0.290	2143	1.0	5.0	5.0	5.0	2	LW	2022	69.0	
3	4	27	91	92	102.0	0.355	2281	1.0	4.0	5.0	4.0	4	RCM	2023	71.0	
4	5	27	91	91	93.0	0.340	2142	1.0	4.0	4.0	4.0	2	LF	2020	68.0	

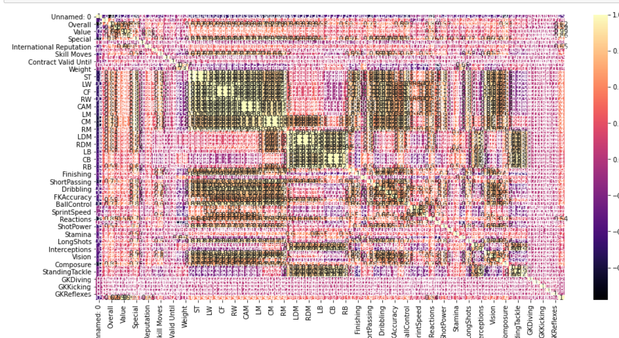
In [7]:
```
plt.figure(figsize=(16, 8))
sns.scatterplot(x=df['Age'],y=df['Potential'])
plt.show()
```



In [8]:
```
plt.figure(figsize=(16,8))
sns.countplot(x=df['Preferred Foot'])
plt.show()
```

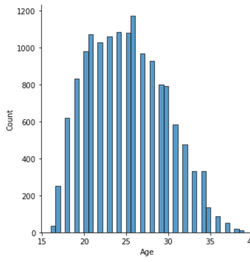


In [9]:
```
plt.figure(figsize=(16,8))
sns.heatmap(df.corr(),annot=True,cmap='magma')
plt.show()
```



In [10]:
```
sns.displot(df, x='Age')
```

Out[10]:
```
<seaborn.axisgrid.FacetGrid at 0x2667d404e20>
```



Conclusion: Using seaborn library various graphs were plotted for the visualisation of the given dataset