Using the below dataset of FIFA players. Perform Exploratory data analysis and find the following insights:

1. Which country has the most number of players?
2. Plot a bar chart of 5 top countries with the greatest number of players.
3. Which player has the highest salary?
4. Plot a histogram to get the salary range of the players.
5. Who is the tallest player in FIFA?
6. Which club has the most number of players?
7. Which foot is most preferred by the players? Draw a bar chart for the preferred foot.

Dataset : https://drive.google.com/file/d/10oyIT1KPdwUqeU9-2LX0xE5-ZytNn9su/view?usp=share_link (https://drive.google.com/file/d/10oyIT1KPdwUqeU9-2LX0xE5-ZytNn9su/view?usp=share_link)

In [1]:
```
import pandas as pd
import matplotlib.pyplot as plt
```

In [2]:
```
data = pd.read_csv("fifa_data.csv")

#sort - required columns for above quastions.
fifa = data[["Name", "Nationality", "Height", "Preferred Foot", "Wage", "Club"]]
fifa
```

Out[2]:

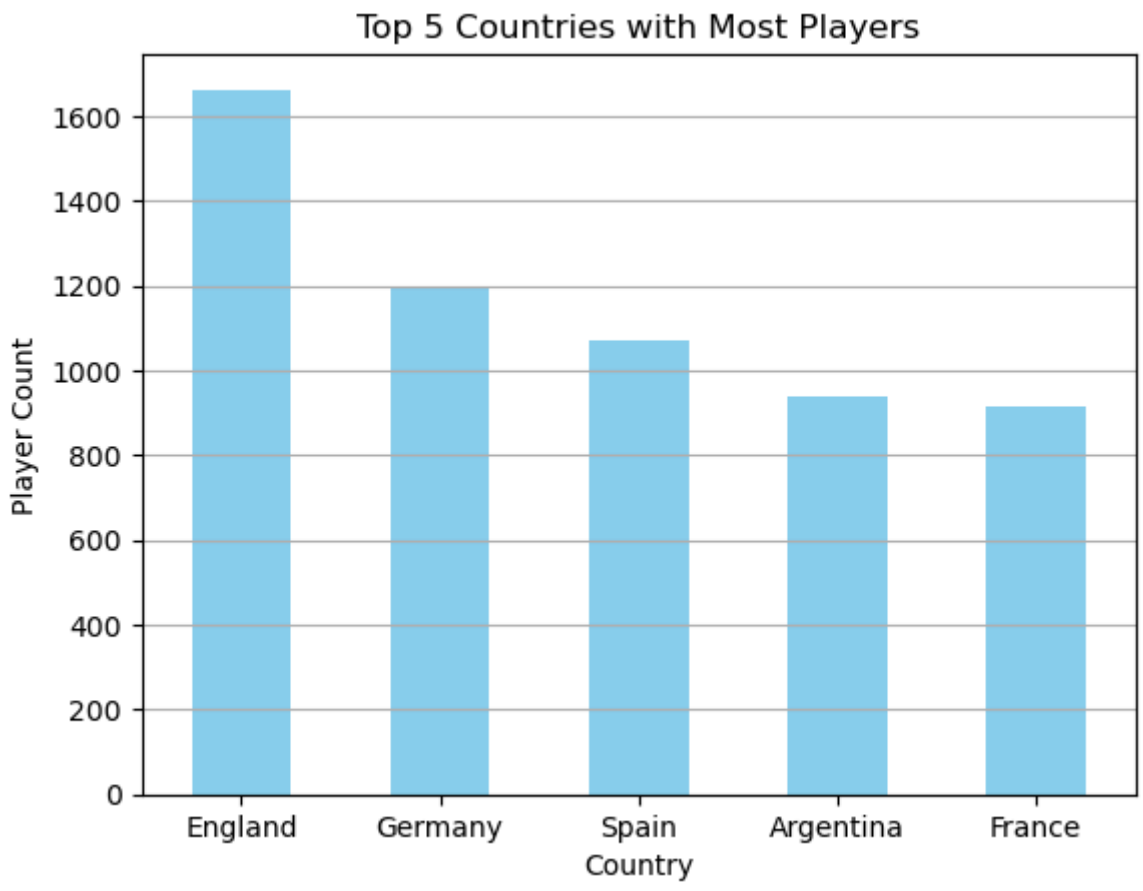
	Name	Nationality	Height	Preferred Foot	Wage	Club
0	L. Messi	Argentina	5'7	Left	€565K	FC Barcelona
1	Cristiano Ronaldo	Portugal	6'2	Right	€405K	Juventus
2	Neymar Jr	Brazil	5'9	Right	€290K	Paris Saint-Germain
3	De Gea	Spain	6'4	Right	€260K	Manchester United
4	K. De Bruyne	Belgium	5'11	Right	€355K	Manchester City
...	...	...	...	...	...	...
18202	J. Lundstram	England	5'9	Right	€1K	Crewe Alexandra
18203	N. Christoffersson	Sweden	6'3	Right	€1K	Trelleborgs FF
18204	B. Worman	England	5'8	Right	€1K	Cambridge United
18205	D. Walker-Rice	England	5'10	Right	€1K	Tranmere Rovers
18206	G. Nugent	England	5'10	Right	€1K	Tranmere Rovers

18207 rows × 6 columns

In [3]:
```
# 1. Which country has the most number of players

most_players_country = fifa['Nationality'].value_counts().head(1)

print(f"Country with the most players: {most_players_country.index[0]} ({most_players_country.values[0]} players)")
```

```
Country with the most players: England (1662 players)
```

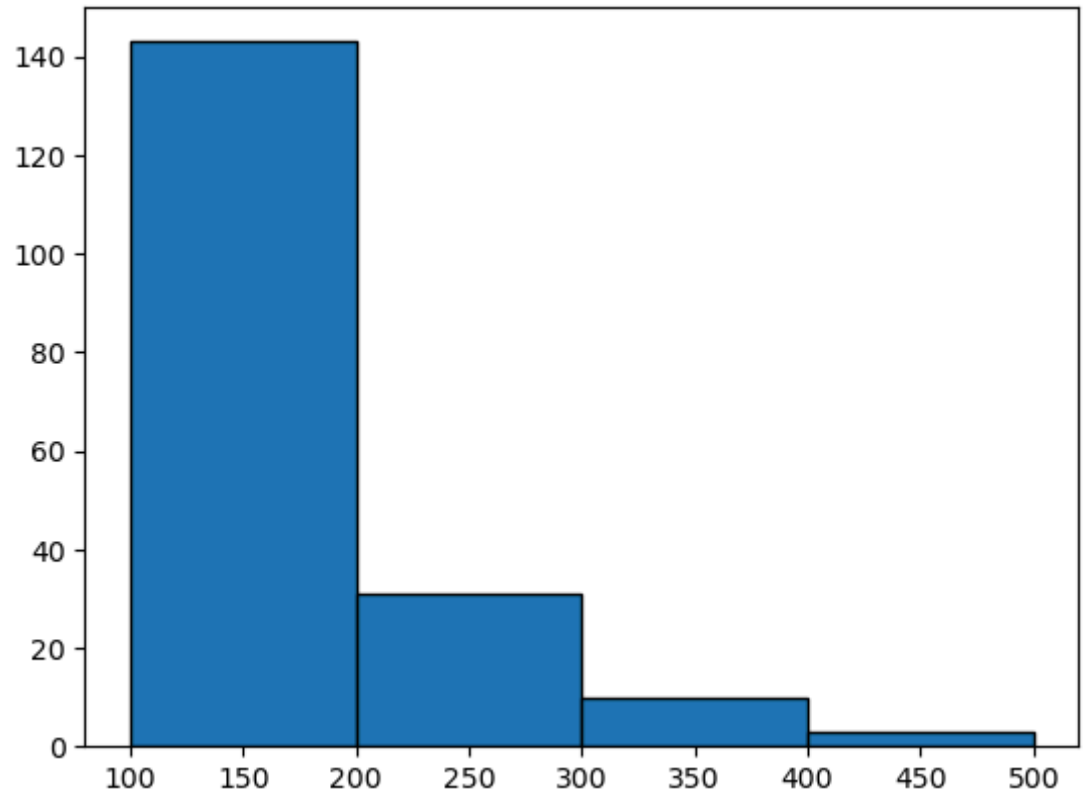
In [4]:
```
# 2. Plot a bar chart of 5 top countries with the most number of players.

top_5_countries = fifa['Nationality'].value_counts().head(5)

top_5_countries.plot(kind='bar', color='skyblue')
plt.title('Top 5 Countries with Most Players')
plt.xlabel('Country')
plt.ylabel('Player Count')
plt.xticks(rotation=0)
plt.grid(axis = 'y')
plt.show()
```



In [5]:
```
# 3.Which player has the highest salary?

wages = pd.DataFrame(fifa['Wage'].str.strip("€K").astype(int))
wages["Name"] = fifa["Name"]

highest_salary = wages.loc[wages["Wage"].idxmax(), "Name"]

print(f"Player with Highest Salary: {highest_salary} (€{wages['Wage'].max()}K)" )
```

```
Player with Highest Salary: L. Messi (€565K)
```

In [6]:
```
# 4.Plot a histogram to get the salary range of the players.

plt.hist(wages["Wage"], bins=[100, 200, 300, 400, 500], edgecolor='black')
plt.show()
```



In [7]:
```
# 5.Who is the tallest player in the fifa?

heights = pd.DataFrame(fifa['Height'].str.replace("'", '.').astype(float))
heights["Name"] = fifa["Name"]

tallest_player = heights.loc[heights["Height"].idxmax(), "Name"]

print(f"The tallest player is {tallest_player} ({str(heights['Height'].max()).replace('.', ' ft ')} in).")
```

```
The tallest player is T. Holý (6 ft 9 in).
```

In [8]:
```
# 6.Which club has the most number of players?

club_counts = fifa['Club'].value_counts().head(1)

print(f"Club with Most Players: {club_counts.index[0]} ({club_counts.values[0]} Players)")
```

```
Club with Most Players: FC Barcelona (33 Players)
```

In [9]:
```
# 7.Which foot is most preferred by the players?Draw a bar chart for preferred foot

foot_counts = fifa['Preferred Foot'].value_counts()

foot_counts.plot(kind='bar', color=['yellow', 'skyblue'], edgecolor='black')
plt.xlabel('Preferred Foot')
plt.ylabel('Number of Players')
plt.title('Preferred Foot Distribution in FIFA Players')
plt.xticks(rotation=0)
plt.grid(axis = 'y')
plt.show()
```