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TASK 05

Q1:

```
import matplotlib.pyplot as plt
```

```
import numpy as np
```

```
# 1) Side-by-side bar chart
```

```
# Sample data: Runs over selected years years = [2004,
```

```
2006, 2008, 2010, 2012] sachin_runs = [1100, 1500,
```

```
1200, 1300, 1000] kohli_runs = [0, 0, 500, 1000, 1380]
```

```
# Kohli started later sehwag_runs = [900, 1200, 1100,
```

```
1050, 950]
```

```
x = np.arange(len(years)) width
```

```
= 0.25
```

```
# Plotting side-by-side bar chart plt.figure(figsize=(10,
```

```
6)) plt.bar(x - width, sachin_runs, width,
```

```
label='Sachin') plt.bar(x, kohli_runs, width,
```

```
label='Kohli') plt.bar(x + width, sehwag_runs, width,
```

```
label='Sehwag')
```

```
plt.xlabel('Year') plt.ylabel('Runs')
```

```
plt.title('Runs Over Selected
```

```
Years') plt.xticks(x, years)
```

```
plt.legend() plt.tight_layout()
plt.show()
```

1) Horizontal bar chart: Debut 5-year total

Sample data: Total runs in debut 5 years

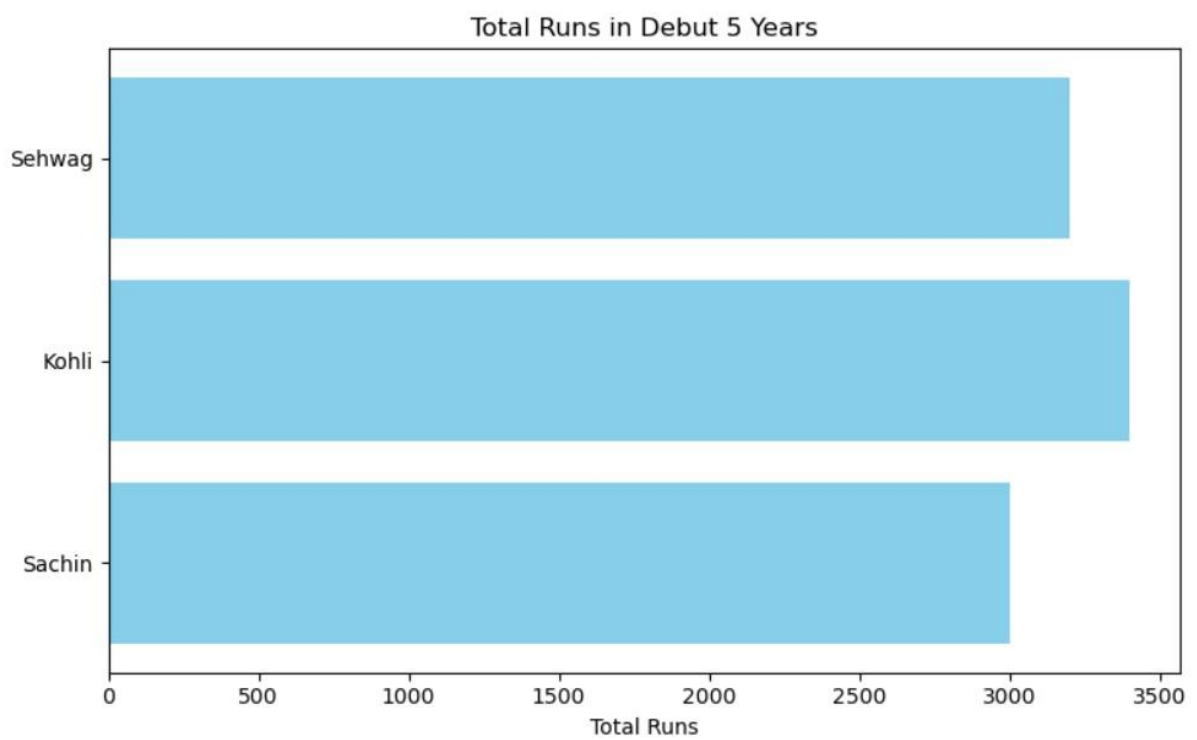
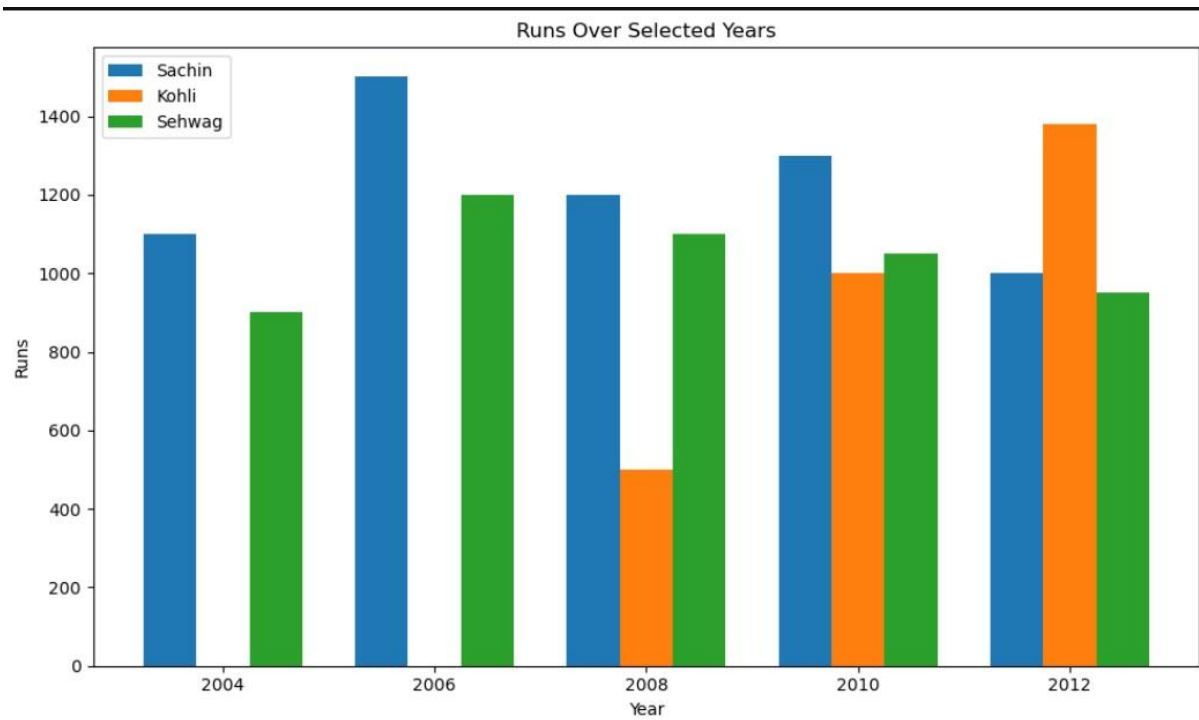
```
debut_runs = {
    'Sachin': 3000,
    'Kohli': 3400,
    'Sehwag': 3200
}
```

```
players = list(debut_runs.keys())
runs = list(debut_runs.values())
```

Plotting horizontal bar chart

```
plt.figure(figsize=(8, 5))
plt.barh(players, runs,
color='skyblue') plt.xlabel('Total
Runs') plt.title('Total Runs in Debut 5
Years') plt.tight_layout() plt.show()
```

OUTPUT :



Q2 :

```
import matplotlib.pyplot as plt
import numpy as np
```

```
# 1) Pie chart: Mobile OS Market Share
```

```
os_labels = ['Android', 'iOS', 'Others']
market_share = [72, 26, 2]
```

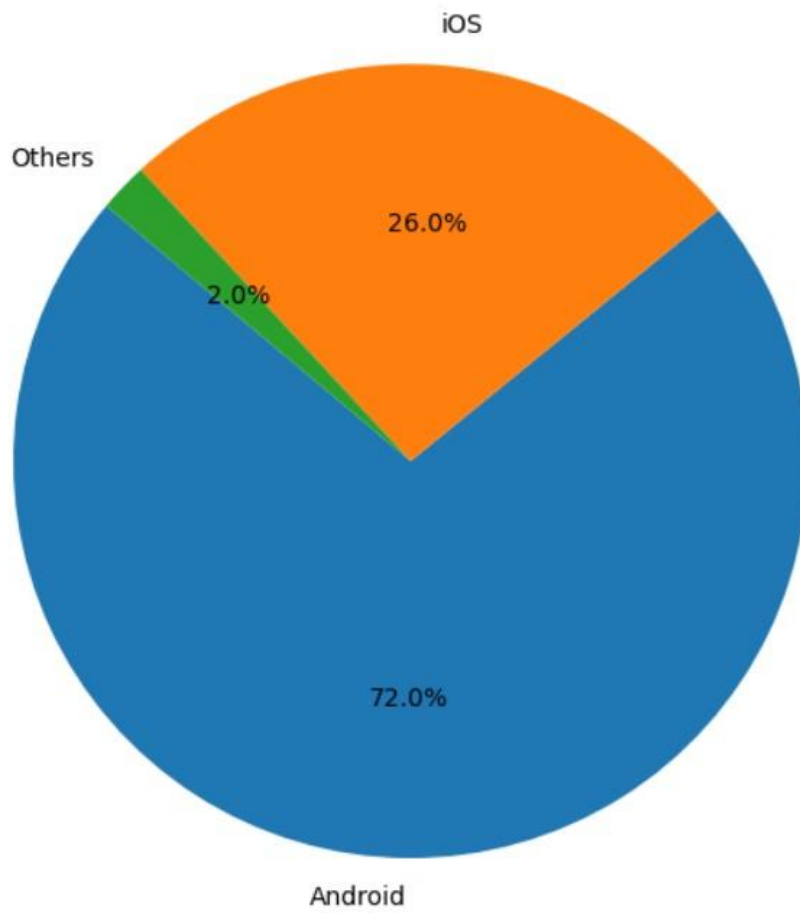
```
plt.figure(figsize=(6, 6))
plt.pie(market_share, labels=os_labels, autopct='%1.1f%%',
startangle=140) plt.title('Mobile OS Market Share (Pie Chart)')
plt.tight_layout() plt.show()
```

```
# 2) Horizontal bar chart: Mobile OS Market Share
```

```
plt.figure(figsize=(8, 5)) plt.barh(os_labels,
market_share, color='lightgreen') plt.xlabel('Market
Share (%)') plt.title('Mobile OS Market Share (Horizontal
Bar Chart)') plt.tight_layout() plt.show()
```

OUTPUT:

Mobile OS Market Share (Pie Chart)



Mobile OS Market Share (Horizontal Bar Chart)

