

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')
```

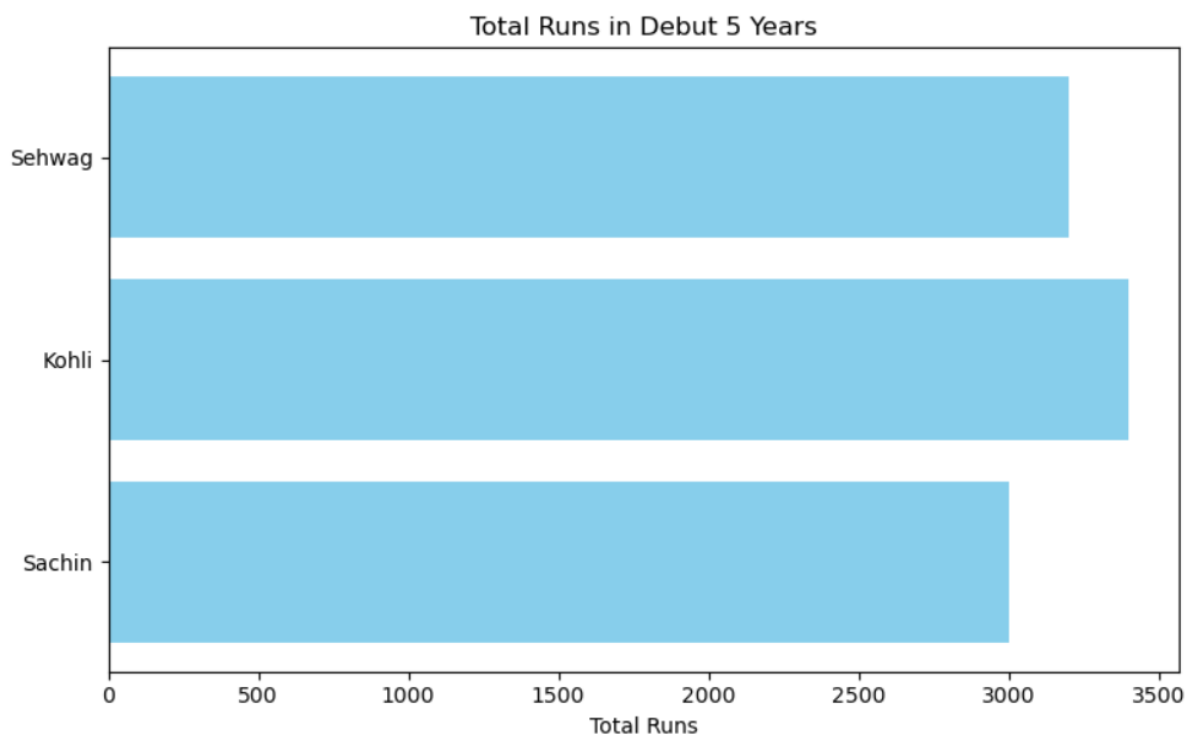
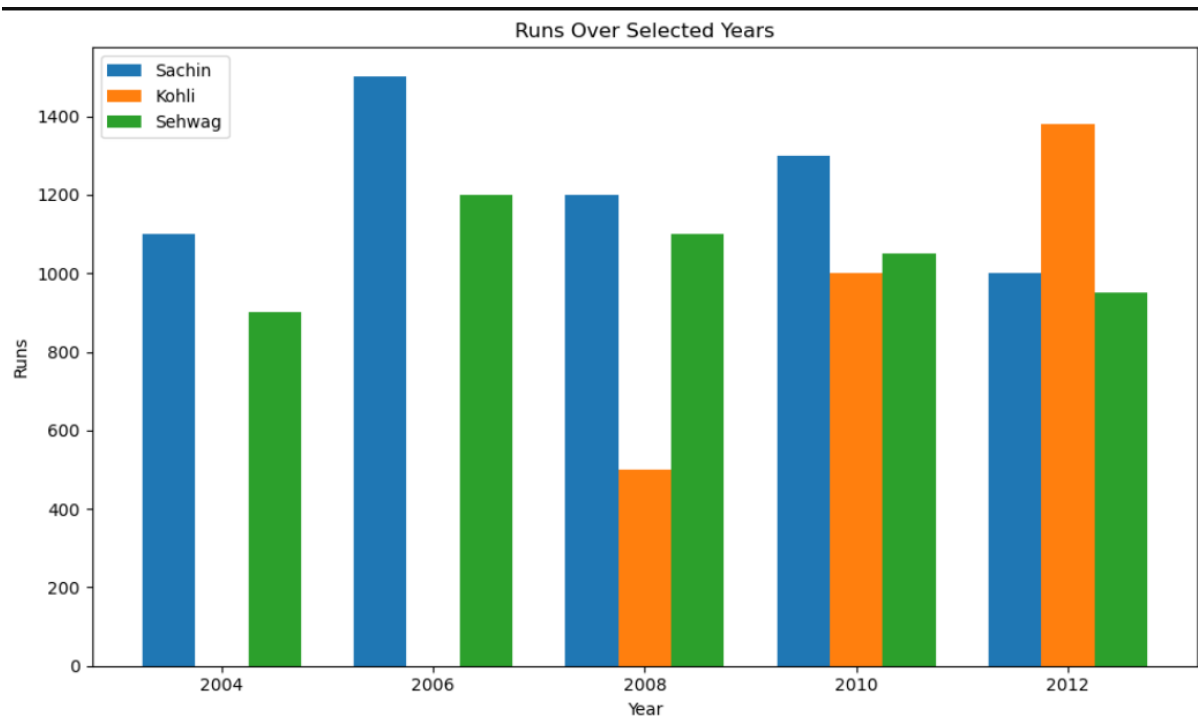
```
plt.xlabel('Total Runs')
```

```
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 (%)')
```

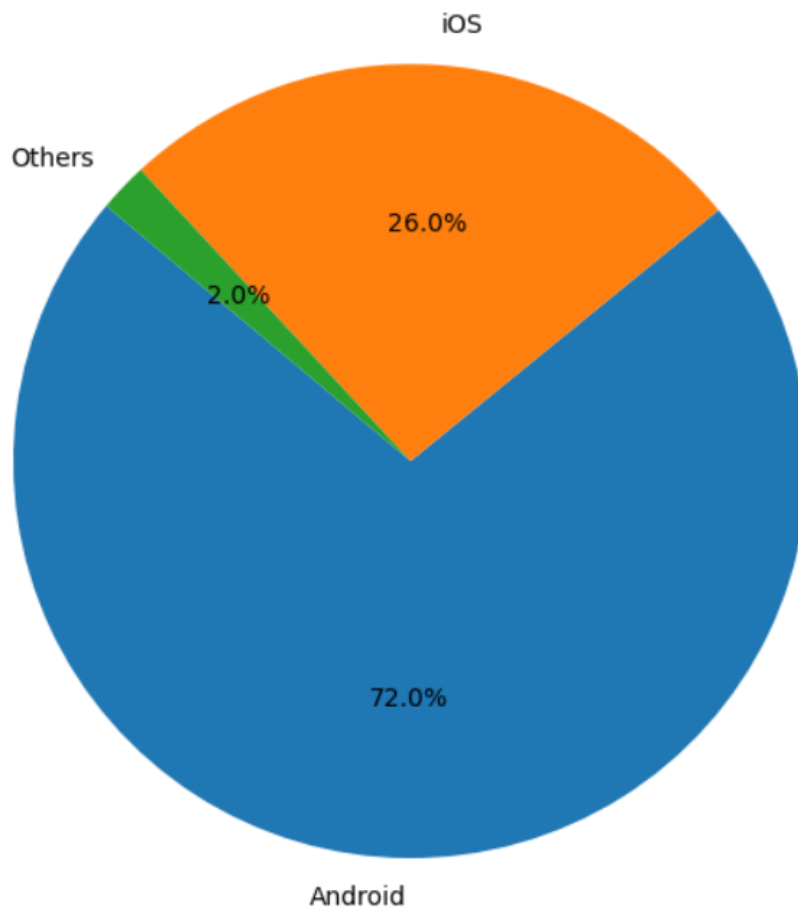
```
plt.title('Mobile OS Market Share (Horizontal Bar Chart)')
```

```
plt.tight_layout()
```

```
plt.show()
```

OUTPUT:

Mobile OS Market Share (Pie Chart)



Mobile OS Market Share (Horizontal Bar Chart)

