EDS Theory Activity No:-1

Name :- Ayush Satose

Roll no :- CC-09 PRN :- 202401050038

Activity:- Formulate 20 problem statements for a **IPL** dataset using Numpy and Pandas and Apply Numpy and pandas methods to find the solution for the formulated problem statements.

1. How many matches are there?

2. How many unique batting teams?

3. How many unique bowling teams?

```
import pandas as pd

data = pd.read_csv("/deliveries.csv")

df = pd.DataFrame(data)

q3 = df['bowling_team'].nunique()
print(q3)
```

```
19
```

4. How many different batters?

```
import pandas as pd

data = pd.read_csv("/deliveries.csv")

df = pd.DataFrame(data)

q4 = df['batter'].nunique()
print(q4)
```

```
673
```

5. How many different bowlers?

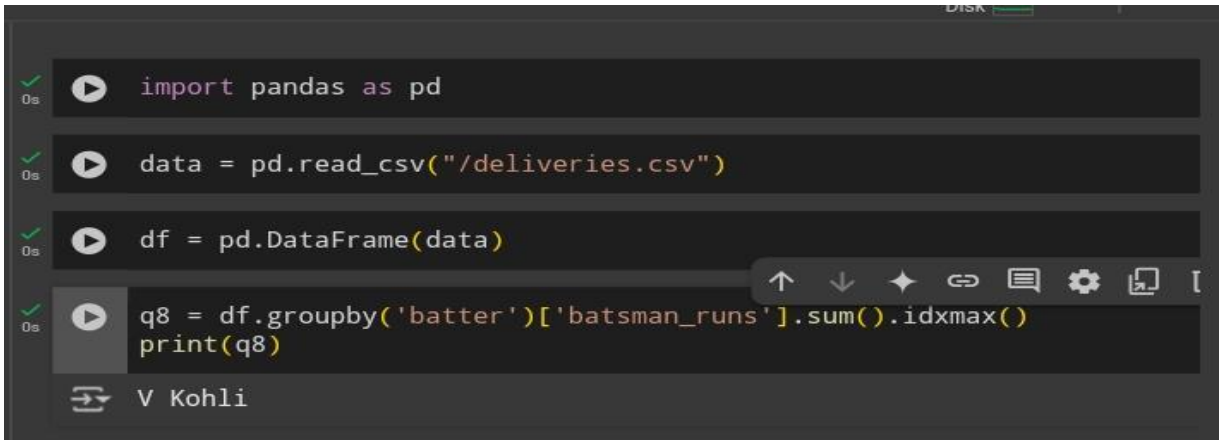
```
import pandas as pd

data = pd.read_csv("/deliveries.csv")

df = pd.DataFrame(data)

q5 = df['bowler'].nunique()
print(q5)
```

```
530
```

6. How many balls were delivered in total?

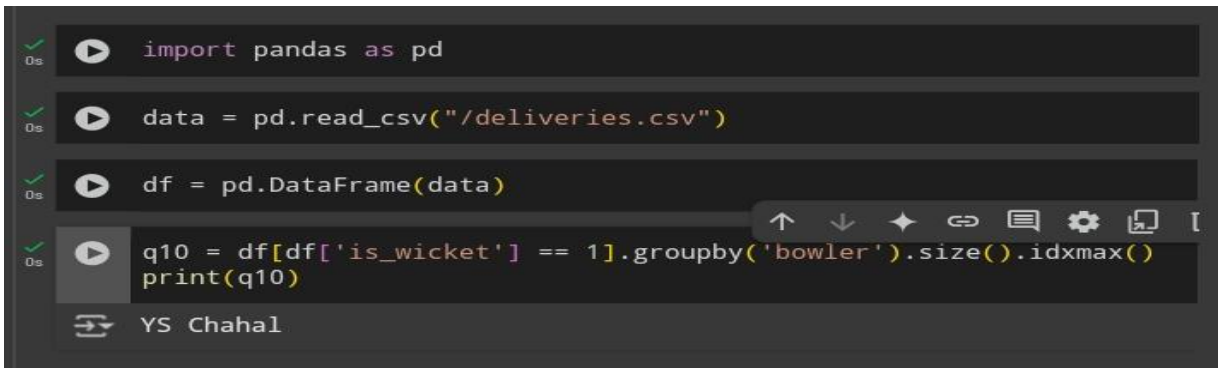
7. How many runs were scored in total?

8. Which batter scored the most runs?



9. How many wickets fell in total?

10. Which bowler took the most wickets?



11. Which team scored the most total runs?

12. Which team conceded the most total runs?

```
import pandas as pd

data = pd.read_csv("/deliveries.csv")

df = pd.DataFrame(data)

q12 = df.groupby('bowling_team')['total_runs'].sum().idxmax()
print(q12)
```

```
Mumbai Indians
```

13. What is the most common dismissal kind?

```
import pandas as pd

data = pd.read_csv("/deliveries.csv")

df = pd.DataFrame(data)

q13 = df['dismissal_kind'].value_counts().idxmax()
print(q13)
```

```
caught
```

14. How many leg byes were there?

```
import pandas as pd

data = pd.read_csv("/deliveries.csv")

df = pd.DataFrame(data)

q14 = df[df['extras_type'] == 'legbyes'].shape[0]
print(q14)
```

```
4001
```

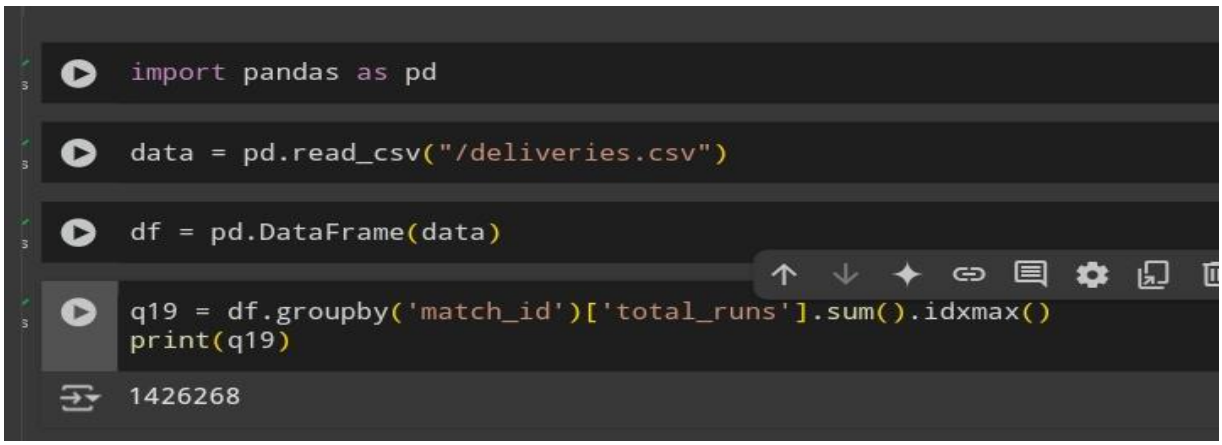
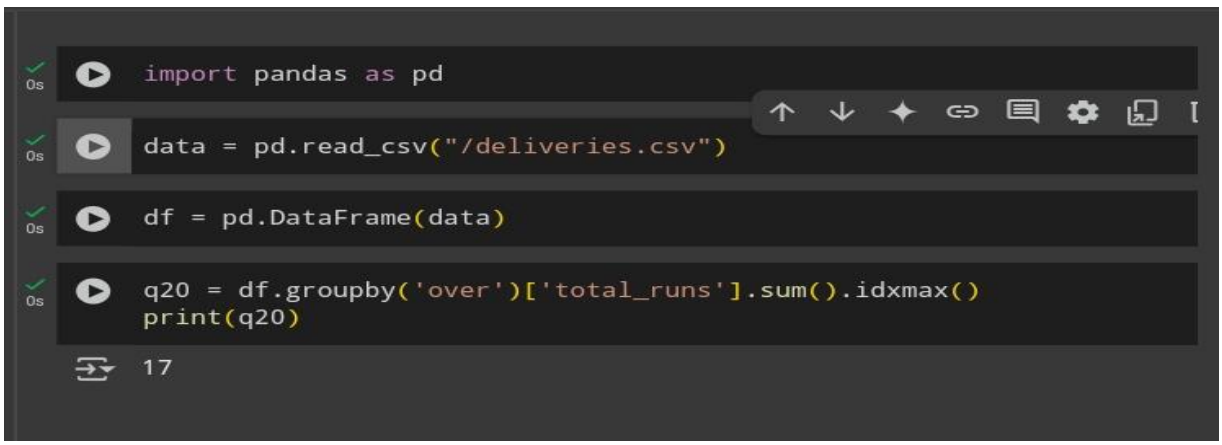
15. How many wides were bowled?

16. Which fielder made the most dismissals?

17. How many innings are there

18. What was the maximum runs scored in a single ball?

19.Which match had the most total runs?



20.Which over had the most runs scored across all matches?