THEORY ACTIVITY NO. 1

NAME;-OMKAR BHAUSAHEB DHAWADE

PRN: - 202401040293

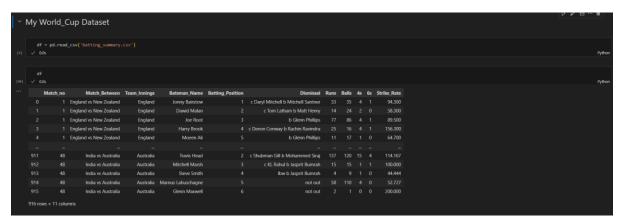
ROLL. NO: - CS3-08

BATCH: - C31

PROBLEM STATEMENT: FORMULATE 20 PROBLEM STATEMENTS FOR A GIVEN DATASET USING NUMPY AND PANDAS

DATA_SET TAKEN:- CRICKET WORLD CUP DATASET

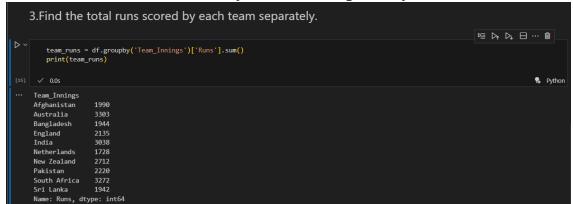
LINK:- https://www.kaggle.com/datasets/enggbilalalikhan/odi-world-cup-2023-complete-dataset?resource=download



1. Find the total number of players in the dataset.

2. Find the player who scored the maximum runs.

3. Find the total runs scored by each team separately.



4. Find the batsman who hit the most sixes.

5. Find the batsman who played the most balls.

6. Find the batsman who scored the highest runs.

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6.Find the batsman who scored the highest runs.

| D | highest_runs = df[df['Runs'] == df['Runs'].max()] | print(highest_runs[['Batsman_Name', 'Runs']]) |
| 19] | | 0.0s | | R Python |
| Batsman_Name Runs | 767 Glenn Maxwell | 201
```

7. What is the average (mean) number of balls faced by each batsman?

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9.What is the average (mean) number of balls faced by each batsman?

| D v | average_balls = df['Balls'].mean() | print("Average Balls Faced:", average_balls)

| [22] | v | 0.0s | Python |
```

8. What is the total number of runs scored in the worldcup dataset?

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8.What is the total number of runs scored in the dataset?

| D v | total_runs = df['Runs'].sum() | print("Total Runs:", total_runs) |
| [21] | v | 0.0s | Python |
```

9. Which batsman faced the most balls?

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| Solution | Sol
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10. What is the highest strike rate recorded and who achieved it?

11. What is the total number of boundaries (4s + 6s) hit by all batsmen?

12. What is the lowest number of runs scored by any batsman?

13. How many times did a batsman get out caught (look for 'c ' in Dismissal)?

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    Tallow many times did a batsman get out caught (look for 'c ' in Dismissal)?

| caught_count = df['Dismissal'].str.contains('c ').sum()
| print("Caught Dismissals:", caught_count)

| v 0.0s | Python
| caught Dismissals: 484
```

14.List all batsmen who hit at least one six.

15. How many entries are there for batting position 3?



16. What is the average runs scored by batsmen at batting position 1?

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16.What is the average runs scored by batsmen at batting position 1?

□ avg_runs_pos1 = df[df['Batting_Position'] == 1]['Runs'].mean()
print("Average Runs at Position 1:", avg_runs_pos1)

□ v 0.0s

□ Average Runs at Position 1: 36.84
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17. How many times did a batsman get dismissed as 'bowled'?

18. How many balls did "Jonny Bairstow" face?

19. Show all batsmen who scored more than 50 runs.

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19.Show all batsmen who scored more than 50 runs.
                                                                                   above_50 = df[df['Runs'] > 50]
print(above_50[['Batsman_Name', 'Runs']])
 ✓ 0.0s
          Batsman_Name Runs
              Joe Root
          Devon Conway
                         152
11
       Rachin Ravindra 123
       Mohammad Rizwan 68
Saud Shakeel 68
        Daryl Mitchell 134
891
            Virat Kohli
901
                         54
             KL Rahul
903
                         66
           Travis Head 137
911
914 Marnus Labuschagne
[160 rows x 2 columns]
```

20. Find which batting position scored the maximum runs.



THANK YOU