

+ Code + Text

RAM Disk Gemini

NAME = SHIVAM KUMAR MAHTO

ROLL NO. = 202210101150090

COURSE = B.TECH CS(DS+AI)

GROUP = 53

SUBJECT = DATA SCIENCE

DATASET = ICC MEN T20 WORLD CUP

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



## DATA LOADING AND IMPORT DATASET

```
[67] df = pd.read_csv('/content/ICC Mens T20 Worldcup.csv')
df
```

	Match No.	Date	Venue	1st Team	2nd Team	Stage	Toss Winning	Toss Decision	First Innings Score	Fall of wickets First Innings	...	Winners	Method	Won by	Winning Margin	Top Scorer	Highest Score	Best Bowler	File
0	1st	Saturday, June 1, 2024	Grand Prairie Stadium, Dallas	Canada	United State Of America	Group A	United State Of America	Fielding	194	5	...	United State Of America	Normal Match	Wickets	7	Aaron Jones	94	Dilon Heyliger	
1	2nd	Sunday, June 2, 2024	Providence Stadium, Guyana	Papua New Guinea	Afghanistan	Group C	Afghanistan	Fielding	95	10	...	Afghanistan	Normal Match	Wickets	7	Gulbadin Naib	49	Fazalhaq Farooqi	
2	3rd	Sunday, June 2, 2024	Kensington Oval, Bridgetown, Barbados	Oman	Namibia	Group B	Namibia	Fielding	109	10	...	Namibia	Normal Match	Wickets	4	Jan Frylinck	45	Mehran Khan	
3	4th	Monday, June 3, 2024	Nassau County International Cricket Stadium, N...	Sri Lanka	South Africa	Group D	Sri Lanka	Batting	77	10	...	South Africa	Normal Match	Wickets	6	Quinton de Kock	20	Anrich Nortje	
4	5th	Monday, June 3, 2024	Providence Stadium, Guyana	Afghanistan	Uganda	Group C	Uganda	Fielding	183	5	...	Afghanistan	Normal Match	Runs	125	Rahmanullah Gurbaz	76	Fazalhaq Farooqi	
5	6th	Tuesday, June 4, 2024	Kensington Oval, Bridgetown, Barbados	Scotland	England	Group B	Scotland	Batting	90	0	...	Rain	Rain	Rain	Rain	Rain	Rain	Rain	
6	7th	Tuesday, June 4, 2024	Grand Prairie Stadium, Dallas	Nepal	Netherlands	Group D	Netherlands	Fielding	106	10	...	Netherlands	Normal Match	Wickets	6	Max O'Dowd	54	Tim Pringle	
7	8th	Wednesday, June 5, 2024	Nassau County International Cricket Stadium, N...	Ireland	India	Group A	India	Fielding	96	10	...	India	Normal Match	Wickets	8	Rohit Sharma	52	Jasprit Bumrah	
8	9th	Wednesday, June 5, 2024	Providence Stadium, Guyana	Papua New Guinea	Uganda	Group C	Uganda	Fielding	77	10	...	Uganda	Normal Match	Wickets	3	Riazat Ali Shah	33	Alpesh Ramjani	
9	10th	Wednesday, June 5, 2024	Kensington Oval, Bridgetown, Barbados	Australia	Oman	Group B	Oman	Fielding	164	5	...	Australia	Normal Match	Runs	39	Marcus Stoinis	67	Marcus Stoinis	
10	11th	Thursday, June 6, 2024	Grand Prairie Stadium, Dallas	Pakistan	United State Of America	Group A	United State Of America	Fielding	159	7	...	United State Of America	Normal Match	Runs	1	Monank Patel	50	Nosthush Kenjige	
11	12th	Thursday, June 6, 2024	Kensington Oval, Bridgetown, Barbados	Namibia	Scotland	Group B	Namibia	Batting	155	9	...	Scotland	Normal Match	Wickets	5	Michael Leask	35	Brad Currie	
12	13th	Friday, June 7, 2024	Nassau County International Cricket Stadium, N...	Canada	England	Group A	England	Fielding	127	7	...	England	Normal Match	Runs	40	Nicholas Pooran	40	Jeremy Holder	



32	33rd	Friday, June 15, 2024	Park Stadium Turf Ground, North Sound, Antigua	England	Namibia	Group A	Namibia	Fielding	122	5	...	England	Normal Match	Runs	41	Harry Brook	47	David Wiese
33	34th	Saturday, June 15, 2024	Sir Vivian Richards Stadium, North Sound, Antigua	England	Namibia	Group B	Namibia	Fielding	122	5	...	England	Normal Match	Runs	41	Harry Brook	47	David Wiese
34	35th	Saturday, June 15, 2024	Daren Sammy National Cricket Stadium, Gros Islet, St Vincent	Scotland	Australia	Group B	Australia	Fielding	180	5	...	Australia	Normal Match	Wickets	5	Marcus Stoinis	59	Mark Watt
35	36th	Sunday, June 16, 2024	Central Broward Regional Park Stadium Turf Ground, Fort Lauderdale, Florida	Ireland	Pakistan	Group A	Pakistan	Fielding	106	9	...	Pakistan	Normal Match	Wickets	3	Babar Azam	32	Shaheen Shah Afridi
36	37th	Sunday, June 16, 2024	Arnos Vale Ground, Kingstown, St Vincent	Bangladesh	Nepal	Group D	Nepal	Fielding	106	10	...	Bangladesh	Normal Match	Runs	21	Kushal Malla	27	Tanzim Hasan Sakib
37	38th	Sunday, June 16, 2024	Daren Sammy National Cricket Stadium, Gros Islet, St Vincent	Sri Lanka	Netherlands	Group D	Netherlands	Fielding	201	6	...	Sri Lanka	Normal Match	Runs	83	Charith Asalanka	46	Nuwan Thushara
38	39th	Monday, June 17, 2024	Brian Lara Stadium, Tarouba, Trinidad	Papua New Guinea	New Zealand	Group C	New Zealand	Fielding	78	10	...	New Zealand	Normal Match	Wickets	7	Devon Conway	35	Lockie Ferguson
39	40th	Monday, June 17, 2024	Daren Sammy National Cricket Stadium, Gros Islet, St Vincent	West Indies	Afghanistan	Group C	Afghanistan	Fielding	218	5	...	West Indies	Normal Match	Runs	104	Nicholas Pooran	98	Obed McCoy
40	41th	Wednesday, June 19, 2024	Sir Vivian Richards Stadium, North Sound, Antigua	South Africa	United State Of America	Group A	United State Of America	Fielding	194	4	...	South Africa	Normal Match	Runs	18	Quinton de Kock	74	Kagiso Rabada
41	42th	Wednesday, June 19, 2024	Daren Sammy National Cricket Stadium, Gros Islet, St Vincent	West Indies	England	Group 2	England	Fielding	180	4	...	England	Normal Match	Wickets	8	Phil Salt	87	Adil Rashid
42	43th	Thursday, June 20, 2024	Kensington Oval, Bridgetown, Barbados	India	Afghanistan	Group 1	India	Batting	181	8	...	India	Normal Match	Runs	47	Suryakumar Yadav	53	Rashid Khan
43	44th	Thursday, June 20, 2024	Sir Vivian Richards Stadium, North Sound, Antigua	Bangladesh	Australia	Group 1	Australia	Fielding	140	8	...	Australia	DLS	Runs	28	David Warner	53	Pat Cummins
44	45th	Friday, June 21, 2024	Daren Sammy National Cricket Stadium, Gros Islet, St Vincent	South Africa	England	Group 2	England	Fielding	163	6	...	South Africa	Normal Match	Runs	7	Quinton de Kock	65	Jofra Archer
45	46th	Friday, June 21, 2024	Kensington Oval, Bridgetown, Barbados	United State Of America	West Indies	Group 2	West Indies	Fielding	128	10	...	West Indies	Normal Match	Wickets	9	Shai Hope	82	Roston Chase
46	47th	Saturday, June 22, 2024	Sir Vivian Richards Stadium, North Sound, Antigua	India	Bangladesh	Group 1	Bangladesh	Fielding	196	5	...	India	Normal Match	Runs	50	Hardik Pandya	50	Kuldeep Yadav
47	48th	Saturday, June 22, 2024	Arnos Vale Ground, Kingstown, St Vincent	Afghanistan	Australia	Group 1	Australia	Fielding	148	6	...	Afghanistan	Normal Match	Runs	21	Rahmanullah Gurbaz	60	Gulbadin Naib
48	49th	Sunday, June 23, 2024	Kensington Oval, Bridgetown, Barbados	United State Of America	England	Group 2	England	Fielding	115	10	...	England	Normal Match	Wickets	10	Jos Buttler	83	Adil Rashid
49	50th	Sunday, June 23, 2024	Sir Vivian Richards Stadium, North Sound, Antigua	West Indies	South Africa	Group 2	South Africa	Fielding	135	8	...	South Africa	DLS	Wickets	3	Roston Chase	52	Tabraiz Shamsi
50	51th	Monday, June 24, 2024	Daren Sammy National Cricket Stadium, Gros Islet, St Vincent	India	Australia	Group 1	Australia	Fielding	205	5	...	India	Normal Match	Runs	24	Rohit Sharma	92	Arshdeep Singh
51	52th	Monday, June 24, 2024	Arnos Vale Ground, Kingstown, St Vincent	Afghanistan	Bangladesh	Group 1	Afghanistan	Batting	115	5	...	Afghanistan	DLS	Runs	8	Ilton Das	54	Rashid Khan



		24, 2024	Kingstown, St Vincent			1												Khan
52	53th	Wednesday, June 26, 2024	Brian Lara Stadium, Tarouba, Trinidad	Afghanistan	South Africa	1st Semi-Final	Afghanistan	Batting	56	10	...	South Africa	Normal Match	Wickets	9	Reeza Hendricks	29	Marco Jansen
53	54th	Thursday, June 27, 2024	Providence Stadium, Guyana	India	England	2nd Semi-Final	England	Fielding	141	7	...	India	Normal Match	Runs	68	Rohit Sharma	57	Axar Patel
54	55th	Saturday, June 29, 2024	Kensington Oval, Bridgetown, Barbados	India	South Africa	Final	India	Batting	176	7	...	India	Normal Match	Runs	7	Virat Kohli	76	Hardik Pandya



40	False	False	False	False	False	False	False	False	False	False	...	False	False	False	False	False	False	False	False	False	False	False
41	False	False	False	False	False	False	False	False	False	False	...	False	False	False	False	False	False	False	False	False	False	False
42	False	False	False	False	False	False	False	False	False	False	...	False	False	False	False	False	False	False	False	False	False	False
43	False	False	False	False	False	False	False	False	False	False	...	False	False	False	False	False	False	False	False	False	False	False
44	False	False	False	False	False	False	False	False	False	False	...	False	False	False	False	False	False	False	False	False	False	False
45	False	False	False	False	False	False	False	False	False	False	...	False	False	False	False	False	False	False	False	False	False	False
46	False	False	False	False	False	False	False	False	False	False	...	False	False	False	False	False	False	False	False	False	False	False
47	False	False	False	False	False	False	False	False	False	False	...	False	False	False	False	False	False	False	False	False	False	False
48	False	False	False	False	False	False	False	False	False	False	...	False	False	False	False	False	False	False	False	False	False	False
49	False	False	False	False	False	False	False	False	False	False	...	False	False	False	False	False	False	False	False	False	False	False
50	False	False	False	False	False	False	False	False	False	False	...	False	False	False	False	False	False	False	False	False	False	False
51	False	False	False	False	False	False	False	False	False	False	...	False	False	False	False	False	False	False	False	False	False	False
52	False	False	False	False	False	False	False	False	False	False	...	False	False	False	False	False	False	False	False	False	False	False
53	False	False	False	False	False	False	False	False	False	False	...	False	False	False	False	False	False	False	False	False	False	False
54	False	False	False	False	False	False	False	False	False	False	...	False	False	False	False	False	False	False	False	False	False	False

55 rows × 22 columns

```
[69] df.isnull().sum()
```



	0
Match No.	0
Date	0
Venue	0
1st Team	0
2nd Team	0
Stage	0
Toss Winning	0
Toss Decision	0
First Innings Score	0
Fall of wickets First Innings	0
Second Innings Score	0
Fall of wickets Second Innings	0
Winners	0
Method	0
Won by	0
Winning Margin	0
Top Scorer	0
Highest Score	0
Best Bowler	0
Best Bowler Figure(Wickets Taken)	0
Best Bowler Figure(Runs Recieved)	0
Player Of The Match	0

dtype: int64

```
[70] df.isnull().any()
```



	0
Match No.	False
Date	False
Venue	False
1st Team	False
2nd Team	False
Stage	False
Toss Winning	False
Toss Decision	False
First Innings Score	False
Fall of wickets First Innings	False
Second Innings Score	False
Fall of wickets Second Innings	False
Winners	False
Method	False
Won by	False
Winning Margin	False
Top Scorer	False
Highest Score	False
Best Bowler	False

Best Bowler Figure(Wickets Taken) False

Best Bowler Figure(Runs Recieved) False

Player Of The Match False

dtype: bool

## DISPLAY TYPE OF DATASET

```
[71] type(df)
```

```
pandas.core.frame.DataFrame
def __init__(data=None, index: Axes | None=None, columns: Axes | None=None, dtype: Dtype | None=None, copy: bool | None=None) -> None
```

Two-dimensional, size-mutable, potentially heterogeneous tabular data.

Data structure also contains labeled axes (rows and columns). Arithmetic operations align on both row and column labels. Can be thought of as a dict-like container for Series objects. The primary pandas data structure.



## DISPLAY TOP 5 ROWS OF DATASET

```
[72] df.head()
```

	Match No.	Date	Venue	1st Team	2nd Team	Stage	Toss Winning	Toss Decision	First Innings Score	Fall of wickets First Innings	...	Winners	Method	Won by	Winning Margin	Top Scorer	Highest Score	Best Bowler	Best B Figure(Wickets Taken)
0	1st	Saturday, June 1, 2024	Grand Prairie Stadium, Dallas	Canada	United State Of America	Group A	United State Of America	Fielding	194	5	...	United State Of America	Normal Match	Wickets	7	Aaron Jones	94	Dilon Heyliger	
1	2nd	Sunday, June 2, 2024	Providence Stadium, Guyana	Papua New Guinea	Afghanistan	Group C	Afghanistan	Fielding	95	10	...	Afghanistan	Normal Match	Wickets	7	Gulbadin Naib	49	Fazalhaq Farooqi	
2	3rd	Sunday, June 2, 2024	Kensington Oval, Bridgetown, Barbados	Oman	Namibia	Group B	Namibia	Fielding	109	10	...	Namibia	Normal Match	Wickets	4	Jan Frylinck	45	Mehran Khan	
3	4th	Monday, June 3, 2024	Nassau County International Cricket Stadium, N...	Sri Lanka	South Africa	Group D	Sri Lanka	Batting	77	10	...	South Africa	Normal Match	Wickets	6	Quinton de Kock	20	Anrich Nortje	
4	5th	Monday, June 3, 2024	Providence Stadium, Guyana	Afghanistan	Uganda	Group C	Uganda	Fielding	183	5	...	Afghanistan	Normal Match	Runs	125	Rahmanullah Gurbaz	76	Fazalhaq Farooqi	

5 rows x 22 columns

```
[73] df.tail()
```

	Match No.	Date	Venue	1st Team	2nd Team	Stage	Toss Winning	Toss Decision	First Innings Score	Fall of wickets First Innings	...	Winners	Method	Won by	Winning Margin	Top Scorer	Highest Score	Best Bowler	Best B Figure(Wickets Taken)
50	51th	Monday, June 24, 2024	Daren Sammy National Cricket Stadium, Gros Is...	India	Australia	Group 1	Australia	Fielding	205	5	...	India	Normal Match	Runs	24	Rohit Sharma	92	Arshdeep Singh	
51	52th	Monday, June 24, 2024	Arnos Vale Ground, Kingstown, St Vincent	Afghanistan	Bangladesh	Group 1	Afghanistan	Batting	115	5	...	Afghanistan	DLS	Runs	8	Liton Das	54	Rashid Khan	
52	53th	Wednesday, June 26, 2024	Brian Lara Stadium, Tarouba, Trinidad	Afghanistan	South Africa	1st Semi-Final	Afghanistan	Batting	56	10	...	South Africa	Normal Match	Wickets	9	Reeza Hendricks	29	Marco Jansen	
53	54th	Thursday, June 27, 2024	Providence Stadium, Guyana	India	England	2nd Semi-Final	England	Fielding	141	7	...	India	Normal Match	Runs	68	Rohit Sharma	57	Axar Patel	
54	55th	Saturday, June 29, 2024	Kensington Oval, Bridgetown, Barbados	India	South Africa	Final	India	Batting	176	7	...	India	Normal Match	Runs	7	Virat Kohli	76	Hardik Pandya	

5 rows x 22 columns

## FIND THE SHAPE OF OUR DATASET(NUMBER OF ROWS & NUMBER OF COLOUMNS)



```
[74] df.shape
```

```
(55, 22)
```



## DISPLAY MISSING VALUES

```
[75] missing_values = df.isnull().sum()
print(missing_values)
```

```
Match No.      0
Date           0
Venue          0
1st Team       0
2nd Team       0
Stage          0
Toss Winning    0
Toss Decision   0
First Innings Score  0
Fall of wickets First Innings  0
Second Innings Score  0
Fall of wickets Second Innings  0
Winners        0
Method         0
Won by         0
Winning Margin  0
Top Scorer     0
Highest Score  0
Best Bowler    0
Best Bowler Figure(wickets Taken)  0
Best Bowler Figure(Runs Recieved)  0
Player Of The Match  0
dtype: int64
```

## GET INFORMATION ABOUT OUR DATASET LIKE TOTAL NUMBER ROW , TOTAL

### NUMBER OF COLOUMNS, DATATYPE OF EACH COLOUMN AND MEMORY REQUIREMENT

```
[76] df.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 55 entries, 0 to 54
Data columns (total 22 columns):
 #   Column              Non-Null count  Dtype
---  -
0   Match No.          55 non-null    object
1   Date               55 non-null    object
2   Venue              55 non-null    object
3   1st Team           55 non-null    object
4   2nd Team           55 non-null    object
5   Stage              55 non-null    object
6   Toss Winning        55 non-null    object
7   Toss Decision       55 non-null    object
8   First Innings Score 55 non-null    object
9   Fall of wickets First Innings  55 non-null    object
10  Second Innings Score 55 non-null    object
11  Fall of wickets Second Innings  55 non-null    object
12  Winners             55 non-null    object
13  Method              55 non-null    object
14  Won by              55 non-null    object
15  Winning Margin      55 non-null    object
16  Top Scorer          55 non-null    object
17  Highest Score       55 non-null    object
18  Best Bowler         55 non-null    object
19  Best Bowler Figure(wickets Taken) 55 non-null    object
20  Best Bowler Figure(Runs Recieved) 55 non-null    object
21  Player Of The Match 55 non-null    object
dtypes: object(22)
memory usage: 9.6+ KB
```

```
[77] df.dropna(inplace=True)
df
```

	Match No.	Date	Venue	1st Team	2nd Team	Stage	Toss Winning	Toss Decision	First Innings Score	Fall of wickets First Innings	...	Winners	Method	Won by	Winning Margin	Top Scorer	Highest Score	Best Bowler	Fig
0	1st	Saturday, June 1, 2024	Grand Prairie Stadium, Dallas	Canada	United State Of America	Group A	United State Of America	Fielding	194	5	...	United State Of America	Normal Match	Wickets	7	Aaron Jones	94	Dilon Heyliger	
1	2nd	Sunday, June 2, 2024	Providence Stadium, Guyana	Papua New Guinea	Afghanistan	Group C	Afghanistan	Fielding	95	10	...	Afghanistan	Normal Match	Wickets	7	Gulbadin Naib	49	Fazalhaq Farooqi	
2	3rd	Sunday, June 2, 2024	Kensington Oval, Bridgetown, Barbados	Oman	Namibia	Group B	Namibia	Fielding	109	10	...	Namibia	Normal Match	Wickets	4	Jan Frylinck	45	Mehran Khan	
3	4th	Monday, June 3, 2024	Nassau County International Cricket Stadium, ...	Sri Lanka	South Africa	Group D	Sri Lanka	Batting	77	10	...	South Africa	Normal Match	Wickets	6	Quinton de Kock	20	Anrich Nortje	

				stadium, N...														
4	5th	Monday, June 3, 2024	Providence Stadium, Guyana	Afghanistan	Uganda	Group C	Uganda	Fielding	183	5	...	Afghanistan	Normal Match	Runs	125	Rahmanullah Gurbaz	76	Fazalhaq Farooqi
5	6th	Tuesday, June 4, 2024	Kensington Oval, Bridgetown, Barbados	Scotland	England	Group B	Scotland	Batting	90	0	...	Rain	Rain	Rain	Rain	Rain	Rain	Rain
6	7th	Tuesday, June 4, 2024	Grand Prairie Stadium, Dallas	Nepal	Netherlands	Group D	Netherlands	Fielding	106	10	...	Netherlands	Normal Match	Wickets	6	Max O'Dowd	54	Tim Pringle
7	8th	Wednesday, June 5, 2024	Nassau County International Cricket Stadium, N...	Ireland	India	Group A	India	Fielding	96	10	...	India	Normal Match	Wickets	8	Rohit Sharma	52	Jasprit Bumrah
8	9th	Wednesday, June 5, 2024	Providence Stadium, Guyana	Papua New Guinea	Uganda	Group C	Uganda	Fielding	77	10	...	Uganda	Normal Match	Wickets	3	Riazat Ali Shah	33	Alpesh Ramjani
9	10th	Wednesday, June 5, 2024	Kensington Oval, Bridgetown, Barbados	Australia	Oman	Group B	Oman	Fielding	164	5	...	Australia	Normal Match	Runs	39	Marcus Stoinis	67	Marcus Stoinis
10	11th	Thursday, June 6, 2024	Grand Prairie Stadium, Dallas	Pakistan	United State Of America	Group A	United State Of America	Fielding	159	7	...	United State Of America	Normal Match	Runs	1	Monank Patel	50	Nosthush Kenjige
11	12th	Thursday, June 6, 2024	Kensington Oval, Bridgetown, Barbados	Namibia	Scotland	Group B	Namibia	Batting	155	9	...	Scotland	Normal Match	Wickets	5	Michael Leask	35	Brad Currie
12	13th	Friday, June 7, 2024	Nassau County International Cricket Stadium, N...	Canada	Ireland	Group A	Ireland	Fielding	137	7	...	Canada	Normal Match	Runs	12	Nicholas Kirton	49	Jeremy Gordon
13	14th	Friday, June 7, 2024	Providence Stadium, Guyana	Afghanistan	New Zealand	Group C	New Zealand	Fielding	169	6	...	Afghanistan	Normal Match	Runs	84	Rahmanullah Gurbaz	80	Rashid Khan
14	15th	Friday, June 7, 2024	Grand Prairie Stadium, Dallas	Sri Lanka	Bangladesh	Group D	Bangladesh	Fielding	124	9	...	Bangladesh	Normal Match	Wickets	2	Pathum Nissanka	47	Rishad Hossain
15	16th	Saturday, June 8, 2024	Nassau County International Cricket Stadium, N...	Netherlands	South Africa	Group D	South Africa	Fielding	103	9	...	South Africa	Normal Match	Wickets	4	David Miller	59	Ottneil Baartman
16	17th	Saturday, June 8, 2024	Kensington Oval, Bridgetown, Barbados	Australia	England	Group B	England	Fielding	201	7	...	Australia	Normal Match	Runs	36	Jos Buttler	42	Adam Zampa
17	18th	Saturday, June 8, 2024	Providence Stadium, Guyana	West Indies	Uganda	Group C	West Indies	Batting	173	5	...	West Indies	Normal Match	Runs	134	Johnson Charles	44	Akeal Hosein
18	19th	Sunday, June 9, 2024	Nassau County International Cricket Stadium, N...	India	Pakistan	Group A	Pakistan	Fielding	119	10	...	India	Normal Match	Runs	6	Rishabh Pant	42	Jasprit Bumrah
19	20th	Sunday, June 9, 2024	Sir Vivian Richards Stadium, North Sound, Antigua	Oman	Scotland	Group B	Oman	Batting	150	7	...	Scotland	Normal Match	Wickets	7	Brandon McMullen	31	Chris Greaves
20	21th	Monday, June 10, 2024	Nassau County International Cricket Stadium, N...	South Africa	Bangladesh	Group D	South Africa	Batting	113	6	...	South Africa	Normal Match	Runs	4	Heinrich Klaasen	46	Tanzim Hasan Sakib
21	22th	Tuesday, June 11, 2024	Nassau County International Cricket Stadium, N...	Canada	Pakistan	Group A	Pakistan	Fielding	106	7	...	Pakistan	Normal Match	Wickets	7	Aaron Johnson	52	Mohammad Amir
22	23th	Tuesday, June 11, 2024	Central Broward Regional Park Stadium Turf Gro...	Nepal	Sri Lanka	Group D	Rain	Rain	Rain	Rain	...	Rain	Rain	Rain	Rain	Rain	Rain	Rain
23	24th	Tuesday, June 11, 2024	Sir Vivian Richards Stadium, North Sound, Antigua	Namibia	Australia	Group B	Australia	Fielding	72	10	...	Australia	Normal Match	Wickets	9	Gerhard Erasmus	36	Adam Zampa
24	25th	Wednesday, June 12, 2024	Nassau County International Cricket	United State Of	India	Group A	India	Fielding	110	8	...	India	Normal Match	Wickets	7	Suryakumar Yadav	50	Arshdeep Singh



				Stadium, N...	America													
25	26th	Wednesday, June 12, 2024	Brian Lara Stadium, Tarouba, Trinidad	West Indies	New Zealand	Group C	New Zealand	Fielding	149	9	...	West Indies	Normal Match	Runs	13	Sherfane Rutherford	68	Trent Boult
26	27th	Thursday, June 13, 2024	Amos Vale Ground, Kingstown, St Vincent	Bangladesh	Netherlands	Group D	Netherlands	Fielding	159	5	...	Bangladesh	Normal Match	Runs	25	Shakib Al Hasan	64	Paul van Meekeren
27	28th	Thursday, June 13, 2024	Sir Vivian Richards Stadium, North Sound, Antigua	Oman	England	Group B	England	Fielding	47	10	...	England	Normal Match	Wickets	8	Jos Buttler	24	Adil Rashid
28	29th	Thursday, June 13, 2024	Brian Lara Stadium, Tarouba, Trinidad	Papua New Guinea	Afghanistan	Group C	Afghanistan	Fielding	95	10	...	Afghanistan	Normal Match	Wickets	7	Gulbadin Naib	49	Fazalhaq Farooqi
29	30th	Friday, June 14, 2024	Central Broward Regional Park Stadium Turf Gro...	United State Of America	Ireland	Group A	Rain	Rain	Rain	Rain	...	Rain	Rain	Rain	Rain	Rain	Rain	Rain
30	31th	Friday, June 14, 2024	Amos Vale Ground, Kingstown, St Vincent	South Africa	Nepal	Group D	Nepal	Fielding	115	7	...	South Africa	Normal Match	Runs	1	Reeza Hendricks	43	Tabraiz Shamsi
31	32th	Friday, June 14, 2024	Brian Lara Stadium, Tarouba, Trinidad	Uganda	New Zealand	Group C	New Zealand	Fielding	40	10	...	New Zealand	Normal Match	Wickets	9	Devon Conway	22	Tim Southee
32	33th	Saturday, June 15, 2024	Central Broward Regional Park Stadium Turf Gro...	Canada	India	Group A	Rain	Rain	Rain	Rain	...	Rain	Rain	Rain	Rain	Rain	Rain	Rain
33	34th	Saturday, June 15, 2024	Sir Vivian Richards Stadium, North Sound, Antigua	England	Namibia	Group B	Namibia	Fielding	122	5	...	England	Normal Match	Runs	41	Harry Brook	47	David Wiese
34	35th	Saturday, June 15, 2024	Daren Sammy National Cricket Stadium, Gros Isl...	Scotland	Australia	Group B	Australia	Fielding	180	5	...	Australia	Normal Match	Wickets	5	Marcus Stoinis	59	Mark Watt
35	36th	Sunday, June 16, 2024	Central Broward Regional Park Stadium Turf Gro...	Ireland	Pakistan	Group A	Pakistan	Fielding	106	9	...	Pakistan	Normal Match	Wickets	3	Babar Azam	32	Shaheen Shah Afridi
36	37th	Sunday, June 16, 2024	Amos Vale Ground, Kingstown, St Vincent	Bangladesh	Nepal	Group D	Nepal	Fielding	106	10	...	Bangladesh	Normal Match	Runs	21	Kushal Malla	27	Tanzim Hasan Sakib
37	38th	Sunday, June 16, 2024	Daren Sammy National Cricket Stadium, Gros Isl...	Sri Lanka	Netherlands	Group D	Netherlands	Fielding	201	6	...	Sri Lanka	Normal Match	Runs	83	Charlith Asalanka	46	Nuwan Thushara
38	39th	Monday, June 17, 2024	Brian Lara Stadium, Tarouba, Trinidad	Papua New Guinea	New Zealand	Group C	New Zealand	Fielding	78	10	...	New Zealand	Normal Match	Wickets	7	Devon Conway	35	Lockie Ferguson
39	40th	Monday, June 17, 2024	Daren Sammy National Cricket Stadium, Gros Isl...	West Indies	Afghanistan	Group C	Afghanistan	Fielding	218	5	...	West Indies	Normal Match	Runs	104	Nicholas Pooran	98	Obed McCoy
40	41th	Wednesday, June 19, 2024	Sir Vivian Richards Stadium, North Sound, Antigua	South Africa	United State Of America	Group A	United State Of America	Fielding	194	4	...	South Africa	Normal Match	Runs	18	Quinton de Kock	74	Kagiso Rabada
41	42th	Wednesday, June 19, 2024	Daren Sammy National Cricket Stadium, Gros Isl...	West Indies	England	Group 2	England	Fielding	180	4	...	England	Normal Match	Wickets	8	Phil Salt	87	Adil Rashid
42	43th	Thursday, June 20, 2024	Kensington Oval, Bridgetown, Barbados	India	Afghanistan	Group 1	India	Batting	181	8	...	India	Normal Match	Runs	47	Suryakumar Yadav	53	Rashid Khan
43	44th	Thursday, June 20, 2024	Sir Vivian Richards Stadium, North Sound, Antigua	Bangladesh	Australia	Group 1	Australia	Fielding	140	8	...	Australia	DLS	Runs	28	David Warner	53	Pat Cummins

44	45th	Friday, June 21, 2024	Daren Sammy National Cricket Stadium, Gros Is...	South Africa	England	Group 2	England	Fielding	163	6	...	South Africa	Normal Match	Runs	7	Quinton de Kock	65	Jofra Archer
45	46th	Friday, June 21, 2024	Kensington Oval, Bridgetown, Barbados	United State Of America	West Indies	Group 2	West Indies	Fielding	128	10	...	West Indies	Normal Match	Wickets	9	Shai Hope	82	Roston Chase
46	47th	Saturday, June 22, 2024	Sir Vivian Richards Stadium, North Sound, Antigua	India	Bangladesh	Group 1	Bangladesh	Fielding	196	5	...	India	Normal Match	Runs	50	Hardik Pandya	50	Kuldeep Yadav
47	48th	Saturday, June 22, 2024	Arnos Vale Ground, Kingstown, St Vincent	Afghanistan	Australia	Group 1	Australia	Fielding	148	6	...	Afghanistan	Normal Match	Runs	21	Rahmanullah Gurbaz	60	Gulbadin Naib
48	49th	Sunday, June 23, 2024	Kensington Oval, Bridgetown, Barbados	United State Of America	England	Group 2	England	Fielding	115	10	...	England	Normal Match	Wickets	10	Jos Buttler	83	Adil Rashid
49	50th	Sunday, June 23, 2024	Sir Vivian Richards Stadium, North Sound, Antigua	West Indies	South Africa	Group 2	South Africa	Fielding	135	8	...	South Africa	DLS	Wickets	3	Roston Chase	52	Tabraiz Shamsi
50	51th	Monday, June 24, 2024	Daren Sammy National Cricket Stadium, Gros Isl...	India	Australia	Group 1	Australia	Fielding	205	5	...	India	Normal Match	Runs	24	Rohit Sharma	92	Arshdeep Singh
51	52th	Monday, June 24, 2024	Arnos Vale Ground, Kingstown, St Vincent	Afghanistan	Bangladesh	Group 1	Afghanistan	Batting	115	5	...	Afghanistan	DLS	Runs	8	Liton Das	54	Rashid Khan
52	53th	Wednesday, June 26, 2024	Brian Lara Stadium, Tarouba, Trinidad	Afghanistan	South Africa	1st Semi-Final	Afghanistan	Batting	56	10	...	South Africa	Normal Match	Wickets	9	Reeza Hendricks	29	Marco Jansen
53	54th	Thursday, June 27, 2024	Providence Stadium, Guyana	India	England	2nd Semi-Final	England	Fielding	141	7	...	India	Normal Match	Runs	68	Rohit Sharma	57	Axar Patel
54	55th	Saturday, June 29, 2024	Kensington Oval, Bridgetown, Barbados	India	South Africa	Final	India	Batting	176	7	...	India	Normal Match	Runs	7	Virat Kohli	76	Hardik Pandya

55 rows x 22 columns



▼ **DROPPING ROWS WITH MISSING VALUES**

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[78] df_cleaned = df.dropna()
df_cleaned
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	1st Team	2nd Team	Stage	Toss Winning	Toss Decision	First Innings Score	Fall of wickets First Innings	...	Winners	Method	Won by	Winning Margin	Top Scorer	Highest Score	Best Bowler	Best Bowler Figure(Wickets Taken)	Best Bowler Figure(Runs Recieved)	Player Of The Match
1 2 3	Canada	United State Of America	Group A	United State Of America	Fielding	194	5	...	United State Of America	Normal Match	Wickets	7	Aaron Jones	94	Dilon Heyliger	1	19	Aaron Jones
3 4 5	Papua New Guinea	Afghanistan	Group C	Afghanistan	Fielding	95	10	...	Afghanistan	Normal Match	Wickets	7	Gulbadin Naib	49	Fazalhaq Farooqi	3	16	Fazalhaq Farooqi
1 2 3 4 5	Oman	Namibia	Group B	Namibia	Fielding	109	10	...	Namibia	Normal Match	Wickets	4	Jan Frylinck	45	Mehran Khan	3	7	David Wiese
1 2 3 4 5	Sri Lanka	South Africa	Group D	Sri Lanka	Batting	77	10	...	South Africa	Normal Match	Wickets	6	Quinton de Kock	20	Anrich Nortje	4	7	Anrich Nortje
2 3 4	Afghanistan	Uganda	Group C	Uganda	Fielding	183	5	...	Afghanistan	Normal Match	Runs	125	Rahmanullah Gurbaz	76	Fazalhaq Farooqi	5	9	Fazalhaq Farooqi
1 2 3	Scotland	England	Group B	Scotland	Batting	90	0	...	Rain	Rain	Rain	Rain	Rain	Rain	Rain	Rain	Rain	Rain
2 3 4	Nepal	Netherlands	Group D	Netherlands	Fielding	106	10	...	Netherlands	Normal Match	Wickets	6	Max O'Dowd	54	Tim Pringle	3	20	Tim Pringle
1 2 3 4 5	Ireland	India	Group A	India	Fielding	96	10	...	India	Normal Match	Wickets	8	Rohit Sharma	52	Jasprit Bumrah	2	6	Jasprit Bumrah





1	Guinea	Afghanistan	Group C	Afghanistan	Fielding	95	10	...	Afghanistan	Normal Match	Wickets	7	Naib	49	Farooqi	3	16	Farooqi
2																		
3	United State Of America	Ireland	Group A	Rain	Rain	Rain	Rain	...	Rain	Rain	Rain	Rain	Rain	Rain	Rain	Rain	Rain	Rain
4																		
5	South Africa	Nepal	Group D	Nepal	Fielding	115	7	...	South Africa	Normal Match	Runs	1	Reeza Hendricks	43	Tabraiz Shamsi	4	19	Tabraiz Shamsi
6																		
7	Uganda	New Zealand	Group C	New Zealand	Fielding	40	10	...	New Zealand	Normal Match	Wickets	9	Devon Conway	22	Tim Southee	3	4	Tim Southee
8																		
9	Canada	India	Group A	Rain	Rain	Rain	Rain	...	Rain	Rain	Rain	Rain	Rain	Rain	Rain	Rain	Rain	Rain
10																		
11	England	Namibia	Group B	Namibia	Fielding	122	5	...	England	Normal Match	Runs	41	Harry Brook	47	David Wiese	1	6	Harry Brook
12																		
13	Scotland	Australia	Group B	Australia	Fielding	180	5	...	Australia	Normal Match	Wickets	5	Marcus Stoinis	59	Mark Watt	2	34	Marcus Stoinis
14																		
15	Ireland	Pakistan	Group A	Pakistan	Fielding	106	9	...	Pakistan	Normal Match	Wickets	3	Babar Azam	32	Shaheen Shah Afridi	3	22	Shaheen Shah Afridi
16																		
17	Bangladesh	Nepal	Group D	Nepal	Fielding	106	10	...	Bangladesh	Normal Match	Runs	21	Kushal Malla	27	Tanzim Hasan Sakib	4	7	Tanzim Hasan Sakib
18																		
19	Sri Lanka	Netherlands	Group D	Netherlands	Fielding	201	6	...	Sri Lanka	Normal Match	Runs	83	Charith Asalanka	46	Nuwan Thushara	3	24	Charith Asalanka
20																		
21	Papua New Guinea	New Zealand	Group C	New Zealand	Fielding	78	10	...	New Zealand	Normal Match	Wickets	7	Devon Conway	35	Lockie Ferguson	3	0	Lockie Ferguson
22																		
23	West Indies	Afghanistan	Group C	Afghanistan	Fielding	218	5	...	West Indies	Normal Match	Runs	104	Nicholas Pooran	98	Obed McCoy	3	14	Nicholas Pooran
24																		
25	South Africa	United State Of America	Group A	United State Of America	Fielding	194	4	...	South Africa	Normal Match	Runs	18	Quinton de Kock	74	Kagiso Rabada	3	18	Quinton de Kock
26																		
27	West Indies	England	Group 2	England	Fielding	180	4	...	England	Normal Match	Wickets	8	Phil Salt	87	Adil Rashid	1	15	Phil Salt
28																		
29	India	Afghanistan	Group 1	India	Batting	181	8	...	India	Normal Match	Runs	47	Suryakumar Yadav	53	Rashid Khan	3	26	Suryakumar Yadav
30																		
31	Bangladesh	Australia	Group 1	Australia	Fielding	140	8	...	Australia	DLS	Runs	28	David Warner	53	Pat Cummins	3	29	Pat Cummins
32																		
33	South Africa	England	Group 2	England	Fielding	163	6	...	South Africa	Normal Match	Runs	7	Quinton de Kock	65	Jofra Archer	3	40	Quinton de Kock
34																		
35	United State Of America	West Indies	Group 2	West Indies	Fielding	128	10	...	West Indies	Normal Match	Wickets	9	Shai Hope	82	Roston Chase	3	19	Roston Chase
36																		
37	India	Bangladesh	Group 1	Bangladesh	Fielding	196	5	...	India	Normal Match	Runs	50	Hardik Pandya	50	Kuldeep Yadav	3	19	Hardik Pandya
38																		
39	Afghanistan	Australia	Group 1	Australia	Fielding	148	6	...	Afghanistan	Normal Match	Runs	21	Rahmanullah Gurbaz	60	Gulbadin Naib	4	20	Gulbadin Naib

United State Of America	England	Group 2	England	Fielding	115	10	...	England	Normal Match	Wickets	10	Jos Buttler	83	Adil Rashid	2	13	Adil Rashid
West Indies	South Africa	Group 2	South Africa	Fielding	135	8	...	South Africa	DLS	Wickets	3	Roston Chase	52	Tabraiz Shamsi	3	27	Tabraiz Shamsi
India	Australia	Group 1	Australia	Fielding	205	5	...	India	Normal Match	Runs	24	Rohit Sharma	92	Arshdeep Singh	3	37	Rohit Sharma
Afghanistan	Bangladesh	Group 1	Afghanistan	Batting	115	5	...	Afghanistan	DLS	Runs	8	Litton Das	54	Rashid Khan	4	23	Naveen-ul-Haq
Afghanistan	South Africa	1st Semi-Final	Afghanistan	Batting	56	10	...	South Africa	Normal Match	Wickets	9	Reeza Hendricks	29	Marco Jansen	3	16	Marco Jansen
India	England	2nd Semi-Final	England	Fielding	141	7	...	India	Normal Match	Runs	66	Rohit Sharma	57	Axar Patel	3	23	Axar Patel
India	South Africa	Final	India	Batting	176	7	...	India	Normal Match	Runs	7	Virat Kohli	76	Hardik Pandya	3	20	Virat Kohli



## REMOVE DUPLICATES

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[79] df.duplicated().sum()
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0
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```
[80] df_cleaned = df_cleaned.drop_duplicates()
df_cleaned
```

	Match No.	Date	Venue	1st Team	2nd Team	Stage	Toss Winning	Toss Decision	First Innings Score	Fall of wickets First Innings	...	Winners	Method	Won by	Winning Margin	Top Scorer	Highest Score	Best Bowler	File
0	1st	Saturday, June 1, 2024	Grand Prairie Stadium, Dallas	Canada	United State Of America	Group A	United State Of America	Fielding	194	5	...	United State Of America	Normal Match	Wickets	7	Aaron Jones	94	Dilon Heyliger	
1	2nd	Sunday, June 2, 2024	Providence Stadium, Guyana	Papua New Guinea	Afghanistan	Group C	Afghanistan	Fielding	95	10	...	Afghanistan	Normal Match	Wickets	7	Gulbadin Naib	49	Fazalhaq Farooqi	
2	3rd	Sunday, June 2, 2024	Kensington Oval, Bridgetown, Barbados	Oman	Namibia	Group B	Namibia	Fielding	109	10	...	Namibia	Normal Match	Wickets	4	Jan Frylinck	45	Mehran Khan	
3	4th	Monday, June 3, 2024	Nassau County International Cricket Stadium, N...	Sri Lanka	South Africa	Group D	Sri Lanka	Batting	77	10	...	South Africa	Normal Match	Wickets	6	Quinton de Kock	20	Anrich Nortje	
4	5th	Monday, June 3, 2024	Providence Stadium, Guyana	Afghanistan	Uganda	Group C	Uganda	Fielding	183	5	...	Afghanistan	Normal Match	Runs	125	Rahmanullah Gurbaz	76	Fazalhaq Farooqi	
5	6th	Tuesday, June 4, 2024	Kensington Oval, Bridgetown, Barbados	Scotland	England	Group B	Scotland	Batting	90	0	...	Rain	Rain	Rain	Rain	Rain	Rain	Rain	
6	7th	Tuesday, June 4, 2024	Grand Prairie Stadium, Dallas	Nepal	Netherlands	Group D	Netherlands	Fielding	106	10	...	Netherlands	Normal Match	Wickets	6	Max O'Dowd	54	Tim Pringle	
7	8th	Wednesday, June 5, 2024	Nassau County International Cricket Stadium, N...	Ireland	India	Group A	India	Fielding	96	10	...	India	Normal Match	Wickets	8	Rohit Sharma	52	Jasprit Bumrah	
8	9th	Wednesday, June 5, 2024	Providence Stadium, Guyana	Papua New Guinea	Uganda	Group C	Uganda	Fielding	77	10	...	Uganda	Normal Match	Wickets	3	Riazat Ali Shah	33	Alpesh Ramjani	

9	10th	Wednesday, June 5, 2024	Kensington Oval, Bridgetown, Barbados	Australia	Oman	Group B	Oman	Fielding	164	5	...	Australia	Normal Match	Runs	39	Marcus Stoinis	67	Marcus Stoinis
10	11th	Thursday, June 6, 2024	Grand Prairie Stadium, Dallas	Pakistan	United State Of America	Group A	United State Of America	Fielding	159	7	...	United State Of America	Normal Match	Runs	1	Monank Patel	50	Nosthush Kenjige
11	12th	Thursday, June 6, 2024	Kensington Oval, Bridgetown, Barbados	Namibia	Scotland	Group B	Namibia	Batting	155	9	...	Scotland	Normal Match	Wickets	5	Michael Leask	35	Brad Currie
12	13th	Friday, June 7, 2024	Nassau County International Cricket Stadium, N.Y.	Canada	Ireland	Group A	Ireland	Fielding	137	7	...	Canada	Normal Match	Runs	12	Nicholas Kirtton	49	Jeremy Gordon
13	14th	Friday, June 7, 2024	Providence Stadium, Guyana	Afghanistan	New Zealand	Group C	New Zealand	Fielding	159	6	...	Afghanistan	Normal Match	Runs	84	Rahmanullah Gurbaz	80	Rashid Khan
14	15th	Friday, June 7, 2024	Grand Prairie Stadium, Dallas	Sri Lanka	Bangladesh	Group D	Bangladesh	Fielding	124	9	...	Bangladesh	Normal Match	Wickets	2	Pathum Nissanka	47	Rishad Hossain
15	16th	Saturday, June 8, 2024	Nassau County International Cricket Stadium, N.Y.	Netherlands	South Africa	Group D	South Africa	Fielding	103	9	...	South Africa	Normal Match	Wickets	4	David Miller	59	Otneil Baartman
16	17th	Saturday, June 8, 2024	Kensington Oval, Bridgetown, Barbados	Australia	England	Group B	England	Fielding	201	7	...	Australia	Normal Match	Runs	36	Jos Buttler	42	Adam Zampa
17	18th	Saturday, June 8, 2024	Providence Stadium, Guyana	West Indies	Uganda	Group C	West Indies	Batting	173	5	...	West Indies	Normal Match	Runs	134	Johnson Charles	44	Akeal Hosein
18	19th	Sunday, June 9, 2024	Nassau County International Cricket Stadium, N.Y.	India	Pakistan	Group A	Pakistan	Fielding	119	10	...	India	Normal Match	Runs	6	Rishabh Pant	42	Jasprit Bumrah
19	20th	Sunday, June 9, 2024	Sir Vivian Richards Stadium, North Sound, Antigua	Oman	Scotland	Group B	Oman	Batting	150	7	...	Scotland	Normal Match	Wickets	7	Brandon McMullen	31	Chris Greaves
20	21th	Monday, June 10, 2024	Nassau County International Cricket Stadium, N.Y.	South Africa	Bangladesh	Group D	South Africa	Batting	113	6	...	South Africa	Normal Match	Runs	4	Heinrich Klaasen	46	Tanzim Hasan Sakib
21	22th	Tuesday, June 11, 2024	Nassau County International Cricket Stadium, N.Y.	Canada	Pakistan	Group A	Pakistan	Fielding	106	7	...	Pakistan	Normal Match	Wickets	7	Aaron Johnson	52	Mohammad Amir
22	23th	Tuesday, June 11, 2024	Central Broward Regional Park Stadium Turf Ground	Nepal	Sri Lanka	Group D	Rain	Rain	Rain	Rain	...	Rain	Rain	Rain	Rain	Rain	Rain	Rain
23	24th	Tuesday, June 11, 2024	Sir Vivian Richards Stadium, North Sound, Antigua	Namibia	Australia	Group B	Australia	Fielding	72	10	...	Australia	Normal Match	Wickets	9	Gerhard Erasmus	36	Adam Zampa
24	25th	Wednesday, June 12, 2024	Nassau County International Cricket Stadium, N.Y.	United State Of America	India	Group A	India	Fielding	110	8	...	India	Normal Match	Wickets	7	Suryakumar Yadav	50	Arshdeep Singh
25	26th	Wednesday, June 12, 2024	Brian Lara Stadium, Tarouba, Trinidad	West Indies	New Zealand	Group C	New Zealand	Fielding	149	9	...	West Indies	Normal Match	Runs	13	Sherfane Rutherford	68	Trent Boult
26	27th	Thursday, June 13, 2024	Arnos Vale Ground, Kingstown, St Vincent	Bangladesh	Netherlands	Group D	Netherlands	Fielding	159	5	...	Bangladesh	Normal Match	Runs	25	Shakib Al Hasan	64	Paul van Meekeren
27	28th	Thursday, June 13, 2024	Sir Vivian Richards Stadium, North Sound, Antigua	Oman	England	Group B	England	Fielding	47	10	...	England	Normal Match	Wickets	8	Jos Buttler	24	Adil Rashid
28	29th	Thursday, June 13, 2024	Brian Lara Stadium, Tarouba, Trinidad	Papua New Guinea	Afghanistan	Group C	Afghanistan	Fielding	95	10	...	Afghanistan	Normal Match	Wickets	7	Gulbadin Naib	49	Fazalhaq Farooqi
29	30th	Friday, June 14, 2024	Central Broward Stadium, Fort Lauderdale, Florida	India	South Africa	Group D	South Africa	Fielding	103	9	...	South Africa	Normal Match	Wickets	4	David Miller	59	Otneil Baartman



29	30th	Friday, June 14, 2024	Regional Park Stadium, Turf Gro...	United State Of America	Ireland	Group A	Rain	Rain	Rain	Rain	...	Rain	Rain	Rain	Rain	Rain	Rain	Rain
30	31th	Friday, June 14, 2024	Arnos Vale Ground, Kingstown, St Vincent	South Africa	Nepal	Group D	Nepal	Fielding	115	7	...	South Africa	Normal Match	Runs	1	Reeza Hendricks	43	Tabraiz Shamsi
31	32th	Friday, June 14, 2024	Brian Lara Stadium, Tarouba, Trinidad	Uganda	New Zealand	Group C	New Zealand	Fielding	40	10	...	New Zealand	Normal Match	Wickets	9	Devon Conway	22	Tim Southee
32	33th	Saturday, June 15, 2024	Central Broward Regional Park Stadium, Turf Gro...	Canada	India	Group A	Rain	Rain	Rain	Rain	...	Rain	Rain	Rain	Rain	Rain	Rain	Rain
33	34th	Saturday, June 15, 2024	Sir Vivian Richards Stadium, North Sound, Antigua	England	Namibia	Group B	Namibia	Fielding	122	5	...	England	Normal Match	Runs	41	Harry Brook	47	David Wiese
34	35th	Saturday, June 15, 2024	Daren Sammy National Cricket Stadium, Gros Isl...	Scotland	Australia	Group B	Australia	Fielding	180	5	...	Australia	Normal Match	Wickets	5	Marcus Stoinis	59	Mark Watt
35	36th	Sunday, June 16, 2024	Central Broward Regional Park Stadium, Turf Gro...	Ireland	Pakistan	Group A	Pakistan	Fielding	106	9	...	Pakistan	Normal Match	Wickets	3	Babar Azam	32	Shaheen Shah Afridi
36	37th	Sunday, June 16, 2024	Arnos Vale Ground, Kingstown, St Vincent	Bangladesh	Nepal	Group D	Nepal	Fielding	106	10	...	Bangladesh	Normal Match	Runs	21	Kushal Malla	27	Tanzim Hasan Sakib
37	38th	Sunday, June 16, 2024	Daren Sammy National Cricket Stadium, Gros Isl...	Sri Lanka	Netherlands	Group D	Netherlands	Fielding	201	6	...	Sri Lanka	Normal Match	Runs	83	Charith Asalanka	46	Nuwan Thushara
38	39th	Monday, June 17, 2024	Brian Lara Stadium, Tarouba, Trinidad	Papua New Guinea	New Zealand	Group C	New Zealand	Fielding	78	10	...	New Zealand	Normal Match	Wickets	7	Devon Conway	35	Lockie Ferguson
39	40th	Monday, June 17, 2024	Daren Sammy National Cricket Stadium, Gros Isl...	West Indies	Afghanistan	Group C	Afghanistan	Fielding	218	5	...	West Indies	Normal Match	Runs	104	Nicholas Pooran	98	Obed McCoy
40	41th	Wednesday, June 19, 2024	Sir Vivian Richards Stadium, North Sound, Antigua	South Africa	United State Of America	Group A	United State Of America	Fielding	194	4	...	South Africa	Normal Match	Runs	18	Quinton de Kock	74	Kagiso Rabada
41	42th	Wednesday, June 19, 2024	Daren Sammy National Cricket Stadium, Gros Isl...	West Indies	England	Group 2	England	Fielding	180	4	...	England	Normal Match	Wickets	8	Phil Salt	87	Adil Rashid
42	43th	Thursday, June 20, 2024	Kensington Oval, Bridgetown, Barbados	India	Afghanistan	Group 1	India	Batting	181	8	...	India	Normal Match	Runs	47	Suryakumar Yadav	53	Rashid Khan
43	44th	Thursday, June 20, 2024	Sir Vivian Richards Stadium, North Sound, Antigua	Bangladesh	Australia	Group 1	Australia	Fielding	140	8	...	Australia	DLS	Runs	28	David Warner	53	Pat Cummins
44	45th	Friday, June 21, 2024	Daren Sammy National Cricket Stadium, Gros Isl...	South Africa	England	Group 2	England	Fielding	163	6	...	South Africa	Normal Match	Runs	7	Quinton de Kock	65	Jofra Archer
45	46th	Friday, June 21, 2024	Kensington Oval, Bridgetown, Barbados	United State Of America	West Indies	Group 2	West Indies	Fielding	128	10	...	West Indies	Normal Match	Wickets	9	Shai Hope	82	Roston Chase
46	47th	Saturday, June 22, 2024	Sir Vivian Richards Stadium, North Sound, Antigua	India	Bangladesh	Group 1	Bangladesh	Fielding	196	5	...	India	Normal Match	Runs	50	Hardik Pandya	50	Kuldeep Yadav
47	48th	Saturday, June 22, 2024	Arnos Vale Ground, Kingstown, St Vincent	Afghanistan	Australia	Group 1	Australia	Fielding	148	6	...	Afghanistan	Normal Match	Runs	21	Rahmanullah Gurbaz	60	Gulbadin Naib
48	49th	Sunday, June 23, 2024	Kensington Oval, Bridgetown,	United State Of America	England	Group 2	England	Fielding	115	10	...	England	Normal Match	Wickets	10	Jos Buttler	83	Adil Rashid

Barbados America																					
49	50th	Sunday, June 23, 2024	Sir Vivian Richards Stadium, North Sound, Antigua	West Indies	South Africa	Group 2	South Africa	Fielding	135	8	...	South Africa	DLS	Wickets	3	Roston Chase	52	Tabraiz Shamsi			
50	51th	Monday, June 24, 2024	Daren Sammy National Cricket Stadium, Gros Is...	India	Australia	Group 1	Australia	Fielding	205	5	...	India	Normal Match	Runs	24	Rohit Sharma	92	Arshdeep Singh			
51	52th	Monday, June 24, 2024	Arnos Vale Ground, Kingstown, St Vincent	Afghanistan	Bangladesh	Group 1	Afghanistan	Batting	115	5	...	Afghanistan	DLS	Runs	8	Liton Das	54	Rashid Khan			
52	53th	Wednesday, June 26, 2024	Brian Lara Stadium, Tarouba, Trinidad	Afghanistan	South Africa	1st Semi-Final	Afghanistan	Batting	56	10	...	South Africa	Normal Match	Wickets	9	Reeza Hendricks	29	Marco Jansen			
53	54th	Thursday, June 27, 2024	Providence Stadium, Guyana	India	England	2nd Semi-Final	England	Fielding	141	7	...	India	Normal Match	Runs	68	Rohit Sharma	57	Axar Patel			
54	55th	Saturday, June 29, 2024	Kensington Oval, Bridgetown, Barbados	India	South Africa	Final	India	Batting	176	7	...	India	Normal Match	Runs	7	Virat Kohli	76	Hardik Pandya			

55 rows × 22 columns



## DATA MANIPULATION

[82]

```

filtered_df = df_cleaned[df_cleaned['Date'] == 'Venue']
filtered_df

```

Match No.	Date	Venue	1st Team	2nd Team	Stage	Toss Winning	Toss Decision	First Innings Score	Fall of wickets First Innings	...	Winners	Method	Won by	Winning Margin	Top Scorer	Highest Score	Best Bowler	Best Bowler Figure(wickets Taken)	Best Bowler Figure(Runs Recieved)	Player Of The Match
-----------	------	-------	----------	----------	-------	--------------	---------------	---------------------	-------------------------------	-----	---------	--------	--------	----------------	------------	---------------	-------------	-----------------------------------	-----------------------------------	---------------------

0 rows × 22 columns

[85]

```

grouped_df =df.groupby('Date')['Venue'].sum()
grouped_df

```

Date	Venue
Friday, June 14, 2024	Central Broward Regional Park Stadium Turf Gro...
Friday, June 21, 2024	Daren Sammy National Cricket Stadium, Gros Isl...
Friday, June 7, 2024	Nassau County International Cricket Stadium, N...
Monday, June 10, 2024	Nassau County International Cricket Stadium, N...
Monday, June 17, 2024	Brian Lara Stadium, Tarouba, TrinidadDaren Sam...
Monday, June 24, 2024	Daren Sammy National Cricket Stadium, Gros Isl...
Monday, June 3, 2024	Nassau County International Cricket Stadium, N...
Saturday, June 1, 2024	Grand Prairie Stadium, Dallas
Saturday, June 15, 2024	Central Broward Regional Park Stadium Turf Gro...
Saturday, June 22, 2024	Sir Vivian Richards Stadium, North Sound, Antl...
Saturday, June 29, 2024	Kensington Oval, Bridgetown, Barbados
Saturday, June 8, 2024	Nassau County International Cricket Stadium, N...
Sunday, June 16, 2024	Central Broward Regional Park Stadium Turf Gro...
Sunday, June 2, 2024	Providence Stadium, GuyanaKensington Oval, Bri...
Sunday, June 23, 2024	Kensington Oval, Bridgetown, BarbadosSir Vivia...
Sunday, June 9, 2024	Nassau County International Cricket Stadium, N...
Thursday, June 13, 2024	Arnos Vale Ground, Kingstown, St VincentSir Vi...
Thursday, June 20, 2024	Kensington Oval, Bridgetown, BarbadosSir Vivia...
Thursday, June 27, 2024	Providence Stadium, Guyana
Thursday, June 6, 2024	Grand Prairie Stadium, DallasKensington Oval, ...
Tuesday, June 11, 2024	Nassau County International Cricket Stadium, N...
Tuesday, June 4, 2024	Kensington Oval, Bridgetown, BarbadosGrand Pra...
Wednesday, June 12, 2024	Nassau County International Cricket Stadium, N...
Wednesday, June 19, 2024	Sir Vivian Richards Stadium, North Sound, Antl...

Wednesday, June 26, 2024 Brian Lara Stadium, Tarouba, Trinidad

Wednesday, June 5, 2024 Nassau County International Cricket Stadium, N...

dtype: object



## DATA ANALYSIS

```
df.describe()
```

	Match No.	Date	Venue	1st Team	2nd Team	Stage	Toss Winning	Toss Decision	First Innings Score	Fall of wickets First Innings	...	Winners	Method	Won by	Winning Margin	Top Scorer	Highest Score	Best Bowler	Best Bowler Figure(Wickets Taken)	Best Bowler Figure(Runs Recieved)
count	55	55	55	55	55	55	55	55	55	55	...	55	55	55	55	55	55	55	55	55
unique	55	26	9	19	18	9	19	3	41	9	...	17	3	3	29	39	38	41	8	28
top	1st	Friday, June 14, 2024	Kensington Oval, Bridgetown, Barbados	India	England	Group A	England	Fielding	106	10	...	South Africa	Normal Match	Runs	7	Rain	Rain	Rain	3	16
freq	1	3	9	6	7	11	6	42	4	16	...	8	48	26	9	4	4	4	25	6

4 rows x 22 columns



## DESCRIPTIVE STATISTICS

```
[87] print(filtered_df.describe())
```

	Match No.	Date	Venue	1st Team	2nd Team	Stage	Toss Winning	Toss Decision	First Innings Score	Fall of wickets First Innings	...	Winners	Method	Won by	Winning Margin	Top Scorer	Highest Score	Best Bowler	Best Bowler Figure(Wickets Taken)	Best Bowler Figure(Runs Recieved)
count	0	0	0	0	0	0	0	0	0	0	...	0	0	0	0	0	0	0	0	0
unique	0	0	0	0	0	0	0	0	0	0	...	0	0	0	0	0	0	0	0	0
top	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	...	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
freq	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	...	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN

	Toss Decision	First Innings Score	Fall of wickets First Innings	...
count	0	0	0	...
unique	0	0	0	...
top	NaN	NaN	NaN	...
freq	NaN	NaN	NaN	...

	Winners	Method	Won by	Winning Margin	Top Scorer	Highest Score
count	0	0	0	0	0	0
unique	0	0	0	0	0	0
top	NaN	NaN	NaN	NaN	NaN	NaN
freq	NaN	NaN	NaN	NaN	NaN	NaN

	Best Bowler	Best Bowler Figure(Wickets Taken)
count	0	0
unique	0	0
top	NaN	NaN
freq	NaN	NaN

	Best Bowler Figure(Runs Recieved)	Player Of The Match
count	0	0
unique	0	0
top	NaN	NaN
freq	NaN	NaN

[4 rows x 22 columns]

```
[88] print(grouped_df.describe())
```

count	26
unique	25
top	Kensington Oval, Bridgetown, BarbadosSir Vivian...
freq	2

Name: Venue, dtype: object

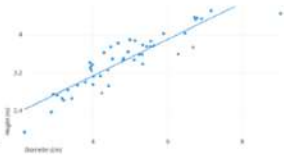
```
[89] df.index
```

```
RangeIndex(start=0, stop=55, step=1)
```



## DATA VISUALIZATION

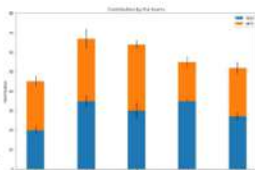
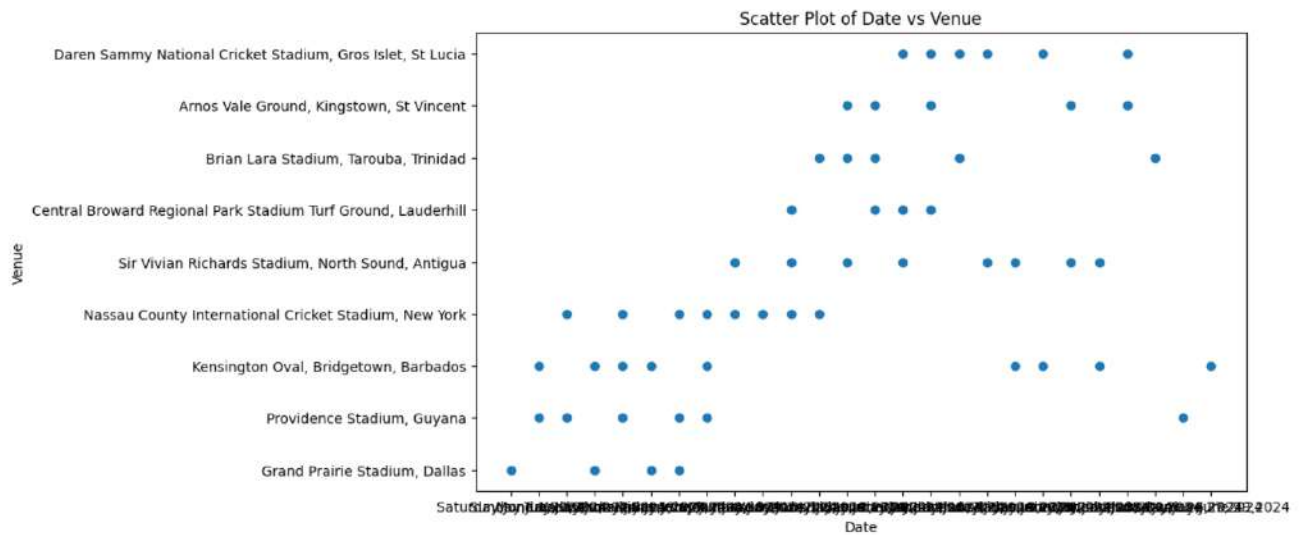




SCATTER PLOT

```
[90] plt.figure(figsize=(10, 6))
plt.scatter(df['Date'], df['Venue'])
plt.xlabel('Date')
plt.ylabel('Venue')
plt.title('Scatter Plot of Date vs Venue')
plt.show()
```

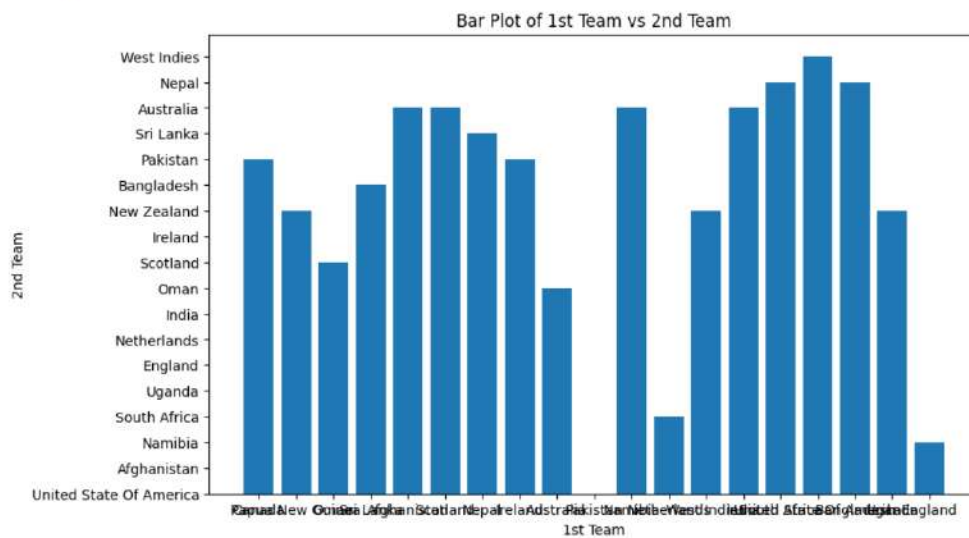
(1)



BAR PLOT

```
[91] plt.figure(figsize=(10, 6))
plt.bar(df['1st Team'], df['2nd Team'])
plt.xlabel('1st Team')
plt.ylabel('2nd Team')
plt.title('Bar Plot of 1st Team vs 2nd Team')
plt.show()
```

(1)



## HISTOGRAM



```
[92] plt.figure(figsize=(10, 6))
plt.hist(df['Toss Winning'], bins=10, color='skyblue', edgecolor='black')
plt.xlabel('Toss Winning')
plt.ylabel('Stage')
plt.title('Histogram of Toss Winning')
plt.show
```



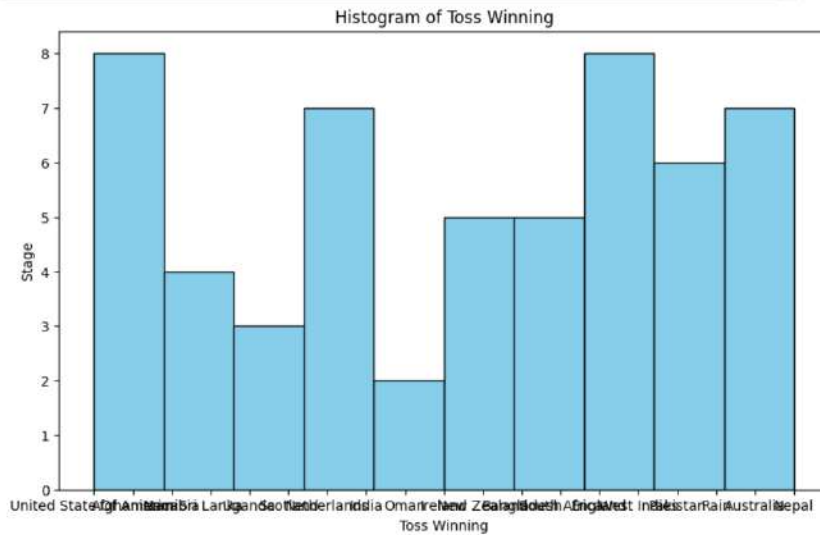
```
matplotlib.pyplot.show
def show(*args, **kwargs)
```

Display all open figures.

Parameters

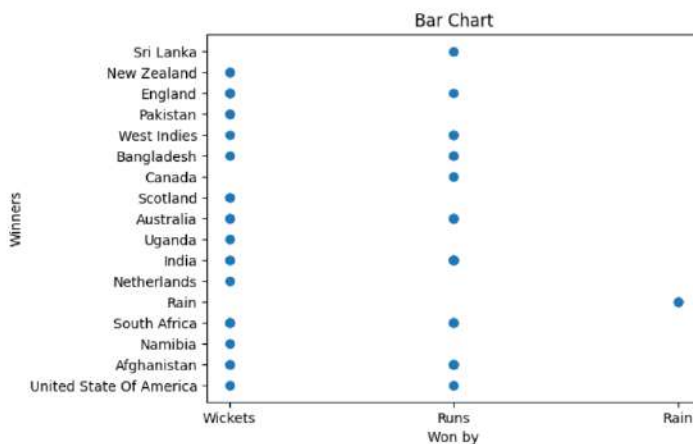
block : bool, optional

Whether to wait for all figures to be closed before returning.



## BAR CHART

```
[94] plt.scatter(df['Won by'], df['Winners'])
plt.title("Bar Chart")
plt.xlabel('Won by')
plt.ylabel('Winners')
plt.show()
```



Conclusion



## CONCLUSION

```
[100] print("\nConclusion:")
print("1. The dataset was cleaned by removing missing values and irrelevant characters.")
print("2. Virat Kohli was named Player of the Match for scoring 76 runs off 59 balls, while Jasprit Bumrah won Player of the Tournament for taking 15 wickets. .")
print("3.The final was held at the Kensington Oval in Bridgetown, Barbados, which has a capacity of 28,000.")
print("4.The United States and West Indies co-hosted the tournamen.")
print("5.The total prize fund for the 2024 tournament was $7,958,080, a 225% increase from the previous year.")
```



Conclusion:

1. The dataset was cleaned by removing missing values and irrelevant characters.
2. Virat Kohli was named Player of the Match for scoring 76 runs off 59 balls, while Jasprit Bumrah won Player of the Tournament for taking 15 wickets. .
- 3.The final was held at the Kensington Oval in Bridgetown, Barbados, which has a capacity of 28,000.
- 4.The United States and West Indies co-hosted the tournamen.
- 5.The total prize fund for the 2024 tournament was \$7,958,080, a 225% increase from the previous year.

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