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Dataset:T20 Cricket

Players

```
1.import pandas as pd df =

pd.read_csv("Players Data set.csv")

print(df)

0      0      V Kohli (INDIA) 2010-2019 75 70 20 2633
1      1      RG Sharma (INDIA) 2007-2019 104 96 14 2633
2      2      MJ Guptill (NZ) 2009-2019 83 80 7 2436
3      3      Shoaib Malik (ICC/PAK) 2006-2019 111 104 30 2263
4      4      BB McCullum (NZ) 2005-2015 71 70 10 2140 ..
...
694    44      Abraash Khan (CAN) 2019-2019 7 4 0 66
695    45      PHKD Mendis (SL) 2018-2019 4 4 0 66
696    46      Waheed Ahmed (UAE) 2019-2019 10 9 4 66
697    47      J Bulele (Moz) 2019-2019 7 7 0 65
698    48      SC Kuggeleijn (NZ) 2019-2019 9 5 3 65

      HS Ave ball faced SR 100 50 0 4s 6s Unnamed: 15
0      94* 52.66      1907 138.07 0 24 2 247 71 NaN
1      118 32.1      1905 138.21 4 19 6 234 120 NaN
2      105 33.36      1810 134.58 2 15 2 215 113 NaN
3      75 30.58      1824 124.06 0 7 1 186 61 NaN
4      123 35.66      1571 136.21 2 13 3 199 91 NaN .. ...

...
694    22 16.5      60 110.00 0 0 0 7 1 NaN
695    41 16.5      46 143.47 0 0 1 6 3 NaN
696    19 13.2      80 82.50 0 0 0 6 2 NaN
697    24 9.28      95 68.42 0 0 1 8 0 NaN
698    35* 32.5      30 216.66 0 0 1 4 6 NaN

[699 rows x 17 columns]
```

```
2.print(df[['Player','Span']])

      Player      Span
0      V Kohli (INDIA) 2010-2019
1      RG Sharma (INDIA) 2007-2019
2      MJ Guptill (NZ) 2009-2019
3      Shoaib Malik (ICC/PAK) 2006-2019
4      BB McCullum (NZ) 2005-2015 ..
694    Abraash Khan (CAN) 2019-2019
695    PHKD Mendis (SL) 2018-2019
696    Waheed Ahmed (UAE) 2019-2019
697    J Bulele (Moz) 2019-2019
698    SC Kuggeleijn (NZ) 2019-2019

[699 rows x 2 columns]
```

```
3.df.describe()

      Unnamed: 0      Mat      Inns      Not out      Runs ball faced      SR      100      5
699.000000 699.000000 699.000000 699.000000 699.000000 699.000000 699.000000 699.000000 699.000000
24.464950 21.825465 18.506438 3.364807 351.393419 285.868383 119.062189 0.078684 1.50643
14.421703 19.675691 17.381721 4.204305 421.934009 322.558233 21.403902 0.352381 2.67770
0.000000 2.000000 2.000000 0.000000 65.000000 30.000000 63.700000 0.000000 0.00000
12.000000 8.000000 7.000000 1.000000 104.000000 96.000000 105.105000 0.000000 0.00000
24.000000 14.000000 12.000000 2.000000 191.000000 161.000000 119.170000 0.000000 1.00000
```

37.000000	29.000000	23.000000	5.000000	396.500000	318.500000	131.700000	0.000000	2.000000
49.000000	111.000000	104.000000	42.000000	2633.000000	1907.000000	239.280000	4.000000	24.000000

4.df.mean()

```
<ipython-input-4-c61f0c8f89b5>:1: FutureWarning: The default value of numeric_only in DataFrame.mean is deprecated. In a future ver
df.mean()
Unnamed: 0      24.464950
Mat            21.825465
Inns           18.506438
Not out        3.364807
Runs           351.393419
ball faced     285.868383
SR             119.062189
100            0.078684
50             1.506438
0              1.457797
4s             30.543634
6s             12.430615
Unnamed: 15      NaN
dtype: float64
```

5.df.median()

```
<ipython-input-6-6d467abf240d>:1: FutureWarning: The default value of numeric_only in DataFrame.median is deprecated. In a future v
df.median()
Unnamed: 0      24.00
Mat            14.00
Inns           12.00
Not out         2.00
Runs           191.00
ball faced     161.00
SR             119.17
100            0.00
50             1.00
0              1.00
4s             15.00
6s             6.00
Unnamed: 15      NaN
dtype: float64
```

6.df.loc[df["Mat"].max()]

```
Unnamed: 0      11
Player        DR Smith (WI)
Span          2006-2015
Mat           33
Inns          32
Not out        0
Runs          582
HS            72
Ave           18.18
ball faced    474
SR            122.78
100           0
50            3
0             1
4s            62
6s            31
Unnamed: 15      NaN
Name: 111, dtype: object
```

7.df["ball faced"].describe()

```
count      699.000000
mean       285.868383
std        322.558233
min        30.000000
25%        96.000000
50%       161.000000
75%       318.500000
max       1907.000000
Name: ball faced, dtype: float64
```

8.df.count()

```
Unnamed: 0      699
Player          699
Span            699
Mat             699
Inns            699
Not out         699
Runs            699
```

HS 699  
Ave 699  
ball faced 699  
SR 699  
100 699  
50 699  
0 699  
4s 699  
6s 699  
Unnamed: 15 0  
dtype: int64

```
9.print(df.loc[df['Runs']>1000])
```

Unnamed: 0	Player	Span	Mat	Inns	Not out	\
0	V Kohli (INDIA)	2010-2019	75	70	20	
1	RG Sharma (INDIA)	2007-2019	104	96	14	
2	MJ Guptill (NZ)	2009-2019	83	80	7	
3	Shoaib Malik (ICC/PAK)	2006-2019	111	104	30	
4	BB McCullum (NZ)	2005-2015	71	70	10	
5	DA Warner (AUS)	2009-2019	76	76	8	
6	EJG Morgan (ENG)	2009-2019	86	84	17	
7	Mohammad Shahzad (AFG)	2010-2018	65	65	3	
8	JP Duminy (SA)	2007-2019	81	75	25	
9	PR Stirling (IRE)	2009-2019	72	71	6	
10	Mohammad Hafeez (PAK)	2006-2018	89	86	8	
11	TM Dilshan (SL)	2006-2016	80	79	12	
12	AJ Finch (AUS)	2011-2019	58	58	9	
13	LRPL Taylor (NZ)	2006-2019	95	87	19	
14	Umar Akmal (PAK)	2009-2019	84	79	14	
15	AB de Villiers (SA)	2006-2017	78	75	11	
16	H Masakadza (ZIM)	2006-2019	66	66	2	
17	AD Hales (ENG)	2011-2019	60	60	7	
18	CH Gayle (WI)	2006-2019	58	54	4	
19	MS Dhoni (INDIA)	2006-2019	98	85	42	
20	Tamim Iqbal (BDESH/ICC/World)	2007-2018	75	75	5	
21	MN Samuels (WI)	2007-2018	67	65	10	
22	SK Raina (INDIA)	2006-2018	78	66	11	
23	GJ Maxwell (AUS)	2012-2019	61	54	9	
24	Shakib Al Hasan (BDESH)	2006-2019	76	76	10	
25	C Munro (NZ)	2012-2019	60	57	7	
26	KS Williamson (NZ)	2011-2019	57	55	7	
27	S Dhawan (INDIA)	2011-2019	58	57	3	
28	KJ O'Brien (IRE)	2008-2019	90	83	10	
29	DPMD Jayawardene (SL)	2006-2014	55	55	8	
30	Ahmed Shehzad (PAK)	2009-2019	59	59	2	
31	SR Watson (AUS)	2006-2016	58	56	6	
32	Mahmudullah (BDESH)	2007-2019	83	76	16	
33	Shahid Afridi (ICC/PAK)	2006-2018	99	91	12	
34	Babar Azam (PAK)	2016-2019	36	36	8	
35	KJ Coetzer (SCOT)	2008-2019	58	56	2	
36	KC Sangakkara (SL)	2006-2014	56	53	9	
37	F du Plessis (SA/World)	2012-2019	44	44	6	
38	Mohammad Nabi (AFG)	2010-2019	75	70	11	
39	DA Miller (SA/World)	2010-2019	72	62	18	
40	HM Amla (SA/World)	2009-2018	44	44	6	
41	Mushfiqur Rahim (BDESH)	2006-2019	84	76	13	
42	JC Buttler (ENG)	2011-2018	66	58	11	
43	RD Berrington (SCOT)	2008-2019	61	54	10	
44	GC Wilson (IRE)	2008-2019	78	65	8	
45	Yuvraj Singh (INDIA)	2007-2017	58	51	9	
46	KP Pietersen (ENG)	2005-2013	37	36	5	
47	MDKJ Perera (SL)	2013-2019	42	42	0	
48	NLTC Perera (ICC/SL/World)	2010-2019	79	70	21	
49	Asghar Afghan (AFG)	2010-2019	66	60	4	
50	DJ Bravo (WI)	2006-2016	66	59	12	
51	KL Rahul (INDIA)	2016-2019	34	31	5	
52	BN Cooper (NL)	2013-2019	51	48	9	
53	WTS Porterfield (IRE)	2008-2018	61	59	6	
54	KA Pollard (WI)	2008-2019	68	58	12	
55	AD Mathews (SL)	2009-2018	72	57	18	56
	CS MacLeod (SCOT)	2009-2019	49	47	7	

```
10.df.loc[ (df['Mat']>50) & (df['50'] <50) ]
```

Unnamed: 0	Player	Span	Mat	Inns	Not out	Runs	HS	Ave	ball faced	SR	100	50	0	4s	6s	Un
0	V Kohli (INDIA)	2010-2019	75	70	20	2633	94*	52.66	1907	138.07	0	24	2	247	71	

```

                RG
                2007-
1      1Sharma 104      96      14      2633      118      32.1      1905      138.21      4      19      6      234
      120
                2019
      (INDIA)
      MJ Guptill 2009-
2      283      80      7      2436      105      33.36      1810      134.58      2      15      2      215      113
      (NZ) 2019
      Shoaib
      2006-
3      3Malik 111      104      30      2263      75      30.58      1824      124.06      0      7      1      186
      61
      2019
      (ICC/PAK)
      BB
      2005-
4      4McCullum 71      70      10      2140      123      35.66      1571      136.21      2      13      3      199
      91
      2015
      (NZ)
      ...
      Umar Gul 2007-
379      29      60      27      9      165      32      9.16      156      105.76      0      0      6      11      10
      (PAK) 2016
11.print(df.iloc[:::-1])

```

```

      Unnamed: 0      Player      Span      Mat      Inns      Not out      Runs \
698      48      SC Kuggeleijn (NZ) 2019-2019      9      5      3      65
697      47      J Bulele (Moz) 2019-2019      7      7      0      65
696      46      Waheed Ahmed (UAE) 2019-2019      10      9      4      66
695      45      PHKD Mendis (SL) 2018-2019      4      4      0      66
694      44      Abraash Khan (CAN) 2019-2019      7      4      0      66 ..
...
4      4      BB McCullum (NZ) 2005-2015      71      70      10      2140
3      3      Shoaib Malik (ICC/PAK) 2006-2019      111      104      30      2263
2      2      MJ Guptill (NZ) 2009-2019      83      80      7      2436
1      1      RG Sharma (INDIA) 2007-2019      104      96      14      2633
0      0      V Kohli (INDIA) 2010-2019      75      70      20      2633

      HS      Ave      ball faced      SR      100      50      0      4s      6s      Unnamed: 15
698      35*      32.5      30      216.66      0      0      1      4      6      NaN
697      24      9.28      95      68.42      0      0      1      8      0      NaN
696      19      13.2      80      82.50      0      0      0      6      2      NaN
695      41      16.5      46      143.47      0      0      1      6      3      NaN
694      22      16.5      60      110.00      0      0      0      7      1      NaN ..
...
4      123      35.66      1571      136.21      2      13      3      199      91      NaN
3      75      30.58      1824      124.06      0      7      1      186      61      NaN
2      105      33.36      1810      134.58      2      15      2      215      113      NaN
1      118      32.1      1905      138.21      4      19      6      234      120      NaN
0      94*      52.66      1907      138.07      0      24      2      247      71      NaN

```

[699 rows x 17 columns]

```

12.print(df.groupby('SR').count())

```

```

      Unnamed: 0      Player      Span      Mat      Inns      Not out      Runs      HS      Ave \
SR
63.70      1      1      1      1      1      1      1      1      1
66.66      1      1      1      1      1      1      1      1      1
68.42      1      1      1      1      1      1      1      1      1
70.19      1      1      1      1      1      1      1      1      1
72.00      1      1      1      1      1      1      1      1      1
...
190.56      1      1      1      1      1      1      1      1      1
190.82      1      1      1      1      1      1      1      1      1
205.76      1      1      1      1      1      1      1      1      1
216.66      1      1      1      1      1      1      1      1      239.28
1      1      1      1      1      1      1      1      1

      ball faced      100      50      0      4s      6s      Unnamed: 15      SR
63.70      1      1      1      1      1      1      0
66.66      1      1      1      1      1      1      0
68.42      1      1      1      1      1      1      0
70.19      1      1      1      1      1      1      0
72.00      1      1      1      1      1      1      0
...
190.56      1      1      1      1      1      1      0
190.82      1      1      1      1      1      1      0
205.76      1      1      1      1      1      1      0
216.66      1      1      1      1      1      1      0
239.28      1      1      1      1      1      1      0

```

[646 rows x 16 columns]

13.df.groupby('Not out').get\_group(20)

Unnamed: 0		Player	Span	Mat	Inns	Not out	Runs	HS	Ave	ball faced	SR	100	50	0	4s	6s	Unnamed: 15
0	0	V Kohli	2010-	75	70	20	2633	94*	52.66	1907	138.07	0	24	2	247	71	NaN

14.df.head(20)

Unnamed: 0		Player	Span	Mat	Inns	Not out	Runs	HS	Ave	ball faced	SR	100	50	0	4s	6s	
0	0	V Kohli (INDIA)	2010-2019	75	70	20	2633	94*	52.66	1907	138.07	0	24	2	247	71	
1	1	RG Sharma (INDIA)	2007-2019	104	96	14	2633	118	32.1	1905	138.21	4	19	6	234	120	
2	2	MJ Guptill (NZ)	2009-2019	83	80	7	2436	105	33.36	1810	134.58	2	15	2	215	113	
3	3	Shoaib Malik (ICC/PAK)	2006-2019	111	104	30	2263	75	30.58	1824	124.06	0	7	1	186		
4	4	BB McCullum (NZ)	2005-2015	71	70	10	2140	123	35.66	1571	136.21	2	13	3	199		
5	5	DA Warner (AUS)	2009-2019	76	76	8	2079	100*	30.57	1476	140.85	1	15	5	203	86	
6	6	EJG Morgan (ENG)	2009-2019	86	84	17	2002	91	29.88	1475	135.72	0	11	3	151	96	
7	7	Mohammad Shahzad (AFG)	2010-2018	65	65	3	1936	118*	31.22	1436	134.81	1	12	3	218		
679	29	TB Sole (SCOT)	2018-2019	9	6	2	69	33*	17.25	43	160.46	0	0	0	9	1	
8	8	JP Duminy (SAJ)	2007-2019	81	75	25	1934	96*	38.68	1532	126.24	0	11	6	138	71	
680	30	Umanath PR Stirling (MEX)	2019-2019	7	7	1	69	25	11.5	77	89.61	0	0	1	7	2	
9	9	(IRE)	2009-2019	72	71	6	1929	91	29.67	1401	137.68	0	16	8	233	59	
681	31	R Ankad Mohammad (MEX)	2019-2006-2019	8	7	3	68	40*	17	72	94.44	0	0	2	7	0	
10	10	Hafeez (PAKAG)	2006-2018	89	86	8	1908	86	24.46	1643	116.12	0	10	6	196	51	
682	32	Cremer (ZIM)	2008-2018	29	19	6	68	17	5.23	102	66.66	0	0	2	2	2	
683	33	Dawlat Zadran (AFG)	2012-2019	34	17	8	68	13	7.55	42	161.90	0	0	3	4		

15.df.tail(20)

Unnamed: 0		Player	Span	Mat	Inns	Not out	Runs	HS	Ave	ball faced	SR	100	50	0	4s	6s	Unnam
7	7	Shahzad	2010-2018	65	65	3	1936	118*	31.22	1436	134.81	1	12	3	218		
679	29	TB Sole (AFG)	2018-2019	9	6	2	69	33*	17.25	43	160.46	0	0	0	9	1	
8	8	JP Duminy (SAJ)	2007-2019	81	75	25	1934	96*	38.68	1532	126.24	0	11	6	138	71	
680	30	Umanath PR Stirling (MEX)	2019-2019	7	7	1	69	25	11.5	77	89.61	0	0	1	7	2	
9	9	(IRE)	2009-2019	72	71	6	1929	91	29.67	1401	137.68	0	16	8	233	59	
681	31	R Ankad Mohammad (MEX)	2019-2006-2019	8	7	3	68	40*	17	72	94.44	0	0	2	7	0	
10	10	Hafeez (PAKAG)	2006-2018	89	86	8	1908	86	24.46	1643	116.12	0	10	6	196	51	
682	32	Cremer (ZIM)	2008-2018	29	19	6	68	17	5.23	102	66.66	0	0	2	2	2	
683	33	Dawlat Zadran (AFG)	2012-2019	34	17	8	68	13	7.55	42	161.90	0	0	3	4		

		TM											
684	34Dowlin 0	2009- 2	2	1	68	37*	68	69	98.55	0	0	0	8
		2010 (WI)											
685	R Escobar 355	2019- 4	1	68	28*	22.66	76	89.47	0	0	0	6	1
	(Arg)	2019											
686	AR Patel 3611	2015- 7	3	68	20*	17	54	125.92	0	0	0	3	3
	(INDIA)	2018											
	Sikander												
687	37Zulfiqar 0	2016- 11	8	1	68	18	9.71	68	100.00	0	0	0	5
		2019 (NL)											
688	JNT Vare 388	2015- 7	0	68	38	9.71	71	95.77	0	0	0	4	0
	(PNG)	2017											
689	C Viljoen 3912	2019- 7	3	68	33	17	70	97.14	0	0	0	7	1
	(NAM)	2019											

```
16.print(df.groupby('0').count())
```

Unnamed: 0	Player	Span	Mat	Inns	Not out	Runs	HS	Ave	ball faced	\
0										
0	255	255	255	255	255	255	255	255	255	255
1	177	177	177	177	177	177	177	177	177	177
2	127	127	127	127	127	127	127	127	127	127
3	62	62	62	62	62	62	62	62	62	62
4	38	38	38	38	38	38	38	38	38	38
5	15	15	15	15	15	15	15	15	15	15
6	15	15	15	15	15	15	15	15	15	15
7	2	2	2	2	2	2	2	2	2	2
8	4	4	4	4	4	4	4	4	4	4
9	1	1	1	1	1	1	1	1	1	1
10	3	3	3	3	3	3	3	3	3	3

SR	100	50	4s	6s	Unnamed: 15
0					
0	255	255	255	255	0
1	177	177	177	177	0
2	127	127	127	127	0
3	62	62	62	62	0
4	38	38	38	38	0
5	15	15	15	15	0
6	15	15	15	15	0
7	2	2	2	2	0
8	4	4	4	4	0
9	1	1	1	1	0
10	3	3	3	3	0

```
17.df['Span'].value_counts()
```

2019-2019	212
2015-2019	38
2018-2019	23
2016-2019	23
2012-2019	19
...	2006-2007
1	
2007-2008	1
2013-2017	1
2016-2018	1
2015-2018	1
Name: Span, Length: 100, dtype: int64	

```
18.df.loc[df['6s'].max()]
```

Unnamed: 0	20
Player	RN ten Doeschate (NL)
Span	2008-2019
Mat	22
Inns	22
Not out	10
Runs	533
HS	59
Ave	44.41

```
ball faced      400
SR              133.25
100             0
50              3
0               1
4s             27
6s             19
Unnamed: 15      NaN
Name: 120, dtype: object
```

```
19.df['Player']
```

```
0      V Kohli (INDIA)
1      RG Sharma (INDIA)
2      MJ Guptill (NZ)
3      Shoaib Malik (ICC/PAK)
4      BB McCullum (NZ)      ...
694    Abraash Khan (CAN)
695    PHKD Mendis (SL)
696    Waheed Ahmed (UAE)
697    J Bulele (Moz)
698    SC Kuggeleijn (NZ)
Name: Player, Length: 699, dtype: object
```

```
20.df['6s'].max()
```

```
120
```

```
21.df.loc[df['Mat']>70]
```

	Unnamed: 0	Player	Span	Mat	Inns	Not out	Runs	HS	Ave	ball faced	SR	100	50	0	4
0	0	V Kohli (INDIA)	2010-2019	75	70	20	2633	94*	52.66	1907	138.07	0	24	2	24
1	1	RG Sharma (INDIA)	2007-2019	104	96	14	2633	118	32.1	1905	138.21	4	19	6	23
2	2	MJ Guptill (NZ)	2009-2019	83	80	7	2436	105	33.36	1810	134.58	2	15	2	21
3	3	Shoaib Malik (ICC/PAK)	2006-2019	111	104	30	2263	75	30.58	1824	124.06	0	7	1	18
4	4	BB McCullum (NZ)	2005-2015	71	70	10	2140	123	35.66	1571	136.21	2	13	3	19
5	5	DA Warner (AUS)	2009-2019	76	76	8	2079	100*	30.57	1476	140.85	1	15	5	20
6	6	EJG Morgan (ENG)	2009-2019	86	84	17	2002	91	29.88	1475	135.72	0	11	3	15
8	8	JP Duminy (SA)	2007-2019	81	75	25	1934	96*	38.68	1532	126.24	0	11	6	13
9	9	PR Stirling (IRE)	2009-2019	72	71	6	1929	91	29.67	1401	137.68	0	16	8	23
10	10	Mohammad Hafeez (PAK)	2006-2018	89	86	8	1908	86	24.46	1643	116.12	0	10	6	19
11	11	TM Dilshan (SL)	2006-2016	80	79	12	1889	104*	28.19	1567	120.54	1	13	10	22
13	13	LRPL Taylor (NZ)	2006-2019	95	87	19	1743	63	25.63	1430	121.88	0	5	5	11
14	14	Umar Akmal (PAK)	2009-2019	84	79	14	1690	94	26	1377	122.73	0	8	10	12
15	15	AB de Villiers (SA)	2006-2017	78	75	11	1672	79*	26.12	1237	135.16	0	10	5	14
19	19	MS Dhoni (INDIA)	2006-2019	98	85	42	1617	56	37.6	1282	126.13	0	2	1	11
20	20	Tamim Iqbal (BDESH/ICC/World)	2007-2018	75	75	5	1613	103*	23.04	1383	116.63	1	6	6	17
22	22	SK Raina (INDIA)	2006-2018	78	66	11	1605	101	29.18	1190	134.87	1	5	3	14
24	24	Shakib Al Hasan (BDESH)	2006-2019	76	76	10	1567	84	23.74	1266	123.77	0	9	5	16
28	28	KJ O'Brien (IRE)	2008-2019	90	83	10	1504	124	20.6	1124	133.80	1	3	10	11
32	32	Mahmudullah (BDESH)	2007-2019	83	76	16	1430	64*	23.83	1166	122.64	0	4	2	11

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