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Dataset:T20 Cricket Players

1.import pandas as pd df =

pd.read\_csv("Players Data set.csv") print(df)

Unnamed: 0 Player Span Mat Inns Not out Runs \

1. 0 V Kohli (INDIA) 2010-2019 75 70 20 2633
2. 1 RG Sharma (INDIA) 2007-2019 104 96 14 2633
3. 2 MJ Guptill (NZ) 2009-2019 83 80 7 2436
4. 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

1. 45 PHKD Mendis (SL) 2018-2019 4 4 0 66
2. 46 Waheed Ahmed (UAE) 2019-2019 10 9 4 66
3. 47 J Bulele (Moz) 2019-2019 7 7 0 65
4. 48 SC Kuggeleijn (NZ) 2019-2019 9 5 3 65

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

1. 94\* 52.66 1907 138.07 0 24 2 247 71 NaN
2. 118 32.1 1905 138.21 4 19 6 234 120 NaN
3. 105 33.36 1810 134.58 2 15 2 215 113 NaN
4. 75 30.58 1824 124.06 0 7 1 186 61 NaN
5. 123 35.66 1571 136.21 2 13 3 199 91 NaN .. ...

... ... ... ... .. .. ... ... ...

1. 22 16.5 60 110.00 0 0 0 7 1 NaN
2. 41 16.5 46 143.47 0 0 1 6 3 NaN
3. 19 13.2 80 82.50 0 0 0 6 2 NaN
4. 24 9.28 95 68.42 0 0 1 8 0 NaN
5. 35\* 32.5 30 216.66 0 0 1 4 6 NaN

[699 rows x 17 columns]

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

Player Span

1. V Kohli (INDIA) 2010-2019
2. RG Sharma (INDIA) 2007-2019
3. MJ Guptill (NZ) 2009-2019
4. Shoaib Malik (ICC/PAK) 2006-2019
5. BB McCullum (NZ) 2005-2015 .. ... ...
6. Abraash Khan (CAN) 2019-2019
7. PHKD Mendis (SL) 2018-2019
8. Waheed Ahmed (UAE) 2019-2019
9. J Bulele (Moz) 2019-2019
10. 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 699.00000

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 2.00000

49.000000 111.000000 104.000000 42.000000 2633.000000 1907.000000 239.280000 4.000000 24.00000

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

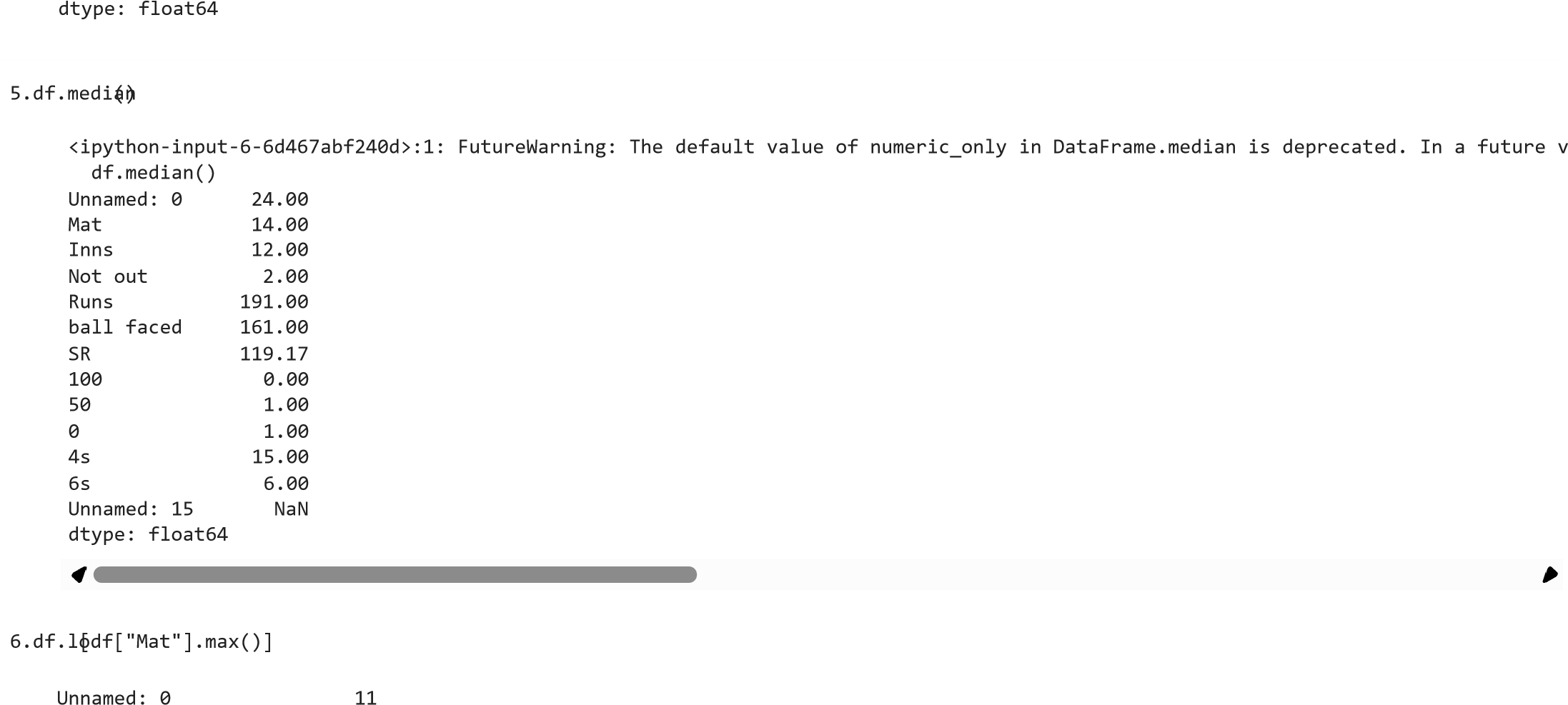
50 1.506438

0 1.457797

4s 30.543634

6s 12.430615

Unnamed: 15 NaN



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 \



1. 0 V Kohli (INDIA) 2010-2019 75 70 20
2. 1 RG Sharma (INDIA) 2007-2019 104 96 14
3. 2 MJ Guptill (NZ) 2009-2019 83 80 7
4. 3 Shoaib Malik (ICC/PAK) 2006-2019 111 104 30
5. 4 BB McCullum (NZ) 2005-2015 71 70 10
6. 5 DA Warner (AUS) 2009-2019 76 76 8
7. 6 EJG Morgan (ENG) 2009-2019 86 84 17
8. 7 Mohammad Shahzad (AFG) 2010-2018 65 65 3
9. 8 JP Duminy (SA) 2007-2019 81 75 25
10. 9 PR Stirling (IRE) 2009-2019 72 71 6
11. 10 Mohammad Hafeez (PAK) 2006-2018 89 86 8
12. 11 TM Dilshan (SL) 2006-2016 80 79 12
13. 12 AJ Finch (AUS) 2011-2019 58 58 9
14. 13 LRPL Taylor (NZ) 2006-2019 95 87 19
15. 14 Umar Akmal (PAK) 2009-2019 84 79 14
16. 15 AB de Villiers (SA) 2006-2017 78 75 11
17. 16 H Masakadza (ZIM) 2006-2019 66 66 2
18. 17 AD Hales (ENG) 2011-2019 60 60 7
19. 18 CH Gayle (WI) 2006-2019 58 54 4
20. 19 MS Dhoni (INDIA) 2006-2019 98 85 42
21. 20 Tamim Iqbal (BDESH/ICC/World) 2007-2018 75 75 5
22. 21 MN Samuels (WI) 2007-2018 67 65 10
23. 22 SK Raina (INDIA) 2006-2018 78 66 11
24. 23 GJ Maxwell (AUS) 2012-2019 61 54 9
25. 24 Shakib Al Hasan (BDESH) 2006-2019 76 76 10
26. 25 C Munro (NZ) 2012-2019 60 57 7
27. 26 KS Williamson (NZ) 2011-2019 57 55 7
28. 27 S Dhawan (INDIA) 2011-2019 58 57 3
29. 28 KJ O'Brien (IRE) 2008-2019 90 83 10
30. 29 DPMD Jayawardene (SL) 2006-2014 55 55 8
31. 30 Ahmed Shehzad (PAK) 2009-2019 59 59 2
32. 31 SR Watson (AUS) 2006-2016 58 56 6
33. 32 Mahmudullah (BDESH) 2007-2019 83 76 16
34. 33 Shahid Afridi (ICC/PAK) 2006-2018 99 91 12
35. 34 Babar Azam (PAK) 2016-2019 36 36 8
36. 35 KJ Coetzer (SCOT) 2008-2019 58 56 2
37. 36 KC Sangakkara (SL) 2006-2014 56 53 9
38. 37 F du Plessis (SA/World) 2012-2019 44 44 6
39. 38 Mohammad Nabi (AFG) 2010-2019 75 70 11
40. 39 DA Miller (SA/World) 2010-2019 72 62 18
41. 40 HM Amla (SA/World) 2009-2018 44 44 6
42. 41 Mushfiqur Rahim (BDESH) 2006-2019 84 76 13
43. 42 JC Buttler (ENG) 2011-2018 66 58 11
44. 43 RD Berrington (SCOT) 2008-2019 61 54 10
45. 44 GC Wilson (IRE) 2008-2019 78 65 8
46. 45 Yuvraj Singh (INDIA) 2007-2017 58 51 9
47. 46 KP Pietersen (ENG) 2005-2013 37 36 5
48. 47 MDKJ Perera (SL) 2013-2019 42 42 0
49. 48 NLTC Perera (ICC/SL/World) 2010-2019 79 70 21
50. 49 Asghar Afghan (AFG) 2010-2019 66 60 4
51. 0 DJ Bravo (WI) 2006-2016 66 59 12
52. 1 KL Rahul (INDIA) 2016-2019 34 31 5
53. 2 BN Cooper (NL) 2013-2019 51 48 9
54. 3 WTS Porterfield (IRE) 2008-2018 61 59 6
55. 4 KA Pollard (WI) 2008-2019 68 58 12
56. 5 AD Mathews (SL) 2009-2018 72 57 18 56 6 CS MacLeod (SCOT) 2009-2019 49 47 7

( )

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

**Unnamed: Not ball Un**

**Player Span Mat Inns Runs HS Ave SR 100 50 0 4s 6s**

**0 out faced**

V Kohli 2010-

1. 0 75 70 20 2633 94\* 52.66 1907 138.07 0 24 2 247 71

(INDIA) 2019

RG

2007-

1. 1 Sharma 104 96 14 2633 118 32.1 1905 138.21 4 19 6 234

120

2019

(INDIA)

MJ Guptill 2009-

1. 2 83 80 7 2436 105 33.36 1810 134.58 2 15 2 215 113

(NZ) 2019

Shoaib

2006-

1. 3 Malik 111 104 30 2263 75 30.58 1824 124.06 0 7 1 186

61

2019

(ICC/PAK)

BB

2005-

1. 4 McCullum 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 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: Not ball Unnamed:**

**Player Span Mat Inns Runs HS Ave SR 100 50 0 4s 6s**

**0 out faced 15**

V Kohli 2010-

**0** 0 75 70 20 2633 94\* 52 66 1907 138 07 0 24 2 247 71 NaN

14.df.head(20)

**Unnamed: Not ball**

**Player Span Mat Inns Runs HS Ave SR 100 50 0 4s 6s**

**0 out faced**

V Kohli 2010-

1. 0 75 70 20 2633 94\* 52.66 1907 138.07 0 24 2 247 71

(INDIA) 2019

RG Sharma 2007-

1. 1 104 96 14 2633 118 32.1 1905 138.21 4 19 6 234 120

(INDIA) 2019

MJ Guptill 2009-

1. 2 83 80 7 2436 105 33.36 1810 134.58 2 15 2 215 113

(NZ) 2019

Shoaib

2006-

1. 3 Malik 111 104 30 2263 75 30.58 1824 124.06 0 7 1 186

61

2019

(ICC/PAK)

BB

2005-

1. 4 McCullum 71 70 10 2140 123 35.66 1571 136.21 2 13 3 199

91

2015

(NZ)

DA Warner 2009-

1. 5 76 76 8 2079 100\* 30.57 1476 140.85 1 15 5 203 86

(AUS) 2019

EJG

15.df.tail**6**(20) 6 Morgan 2009- 86 84 17 2002 91 29.88 1475 135.72 0 11 3 151 96

2019 (ENG)

**Unnamed: Not ball Unnam**

Mohammad**Player Span Mat Inns Runs HS Ave SR 100 50 0 4s 6s**

**0** 2010- **out faced**

**7** 7 Shahzad 65 65 3 1936 118\* 31.22 1436 134.81 1 12 3 218

72

2018

TB Sole(AFG)2019-

**679** 29 9 6 2 69 33\* 17.25 43 160.46 0 0 0 9 1

(SCOT) 2019

JP Duminy 2007-

**8** 8 81 75 25 1934 96\* 38.68 1532 126.24 0 11 6 138 71

(SAJ) 2019

2019-

**680** 30 Umanath 7 7 1 69 25 11.5 77 89.61 0 0 1 7 2

PR Stirling2009-2019

**9** 9 (Mex) 72 71 6 1929 91 29.67 1401 137.68 0 16 8 233 59

(IRE) 2019

R Ankad 2019-

**681** 31 Mohammad 8 7 3 68 40\* 17 72 94.44 0 0 2 7 0

(Mex)2006-2019

**10** 10 Hafeez 89 86 8 1908 86 24.46 1643 116.12 0 10 6 196 51

2018

(PAKAG)

2008-

1. 32 Cremer 29 19 6 68 17 5.23 102 66.66 0 0 2 2

0

2018

(ZIM)

Dawlat

2012-

1. 33 Zadran 34 17 8 68 13 7.55 42 161.90 0 0 3 4

6

2019

(AFG)

TM

2009-

1. 34 Dowlin 2 2 1 68 37\* 68 69 98.55 0 0 0 8

0

2010

(WI)

R Escobar 2019-

1. 35 5 4 1 68 28\* 22.66 76 89.47 0 0 0 6 1

(Arg) 2019

AR Patel 2015-

1. 36 11 7 3 68 20\* 17 54 125.92 0 0 0 3 3

(INDIA) 2018

Sikander

2016-

1. 37 Zulfiqar 11 8 1 68 18 9.71 68 100.00 0 0 0 5

0

2019

(NL)

JNT Vare 2015-

1. 38 8 7 0 68 38 9.71 71 95.77 0 0 0 4 0

(PNG) 2017

C Viljoen 2019-

1. 39 12 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

1. 255 255 255 255 255 255 255 255 255 255
2. 177 177 177 177 177 177 177 177 177 177
3. 127 127 127 127 127 127 127 127 127 127
4. 62 62 62 62 62 62 62 62 62 62
5. 38 38 38 38 38 38 38 38 38 38
6. 15 15 15 15 15 15 15 15 15 15
7. 15 15 15 15 15 15 15 15 15 15
8. 2 2 2 2 2 2 2 2 2 2
9. 4 4 4 4 4 4 4 4 4 4
10. 1 1 1 1 1 1 1 1 1 1
11. 3 3 3 3 3 3 3 3 3 3

SR 100 50 4s 6s Unnamed: 15

0

1. 255 255 255 255 255 0
2. 177 177 177 177 177 0
3. 127 127 127 127 127 0
4. 62 62 62 62 62 0
5. 38 38 38 38 38 0
6. 15 15 15 15 15 0
7. 15 15 15 15 15 0
8. 2 2 2 2 2 0
9. 4 4 4 4 4 0
10. 1 1 1 1 1 0
11. 3 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']

1. V Kohli (INDIA)
2. RG Sharma (INDIA)
3. MJ Guptill (NZ)
4. Shoaib Malik (ICC/PAK)
5. BB McCullum (NZ) ...
6. Abraash Khan (CAN)
7. PHKD Mendis (SL)
8. Waheed Ahmed (UAE)
9. J Bulele (Moz)
10. SC Kuggeleijn (NZ)

Name: Player, Length: 699, dtype: object

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

120

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

