In [23]: main()

1. Match Stats since year 2015

Fig 1.1 - Innings Team

	team	batting	total	won	lost
0	australia	1st	39	20	19
1	australia	2nd	36	20	16
2	india	1st	38	25	13
3	india	2nd	51	36	15

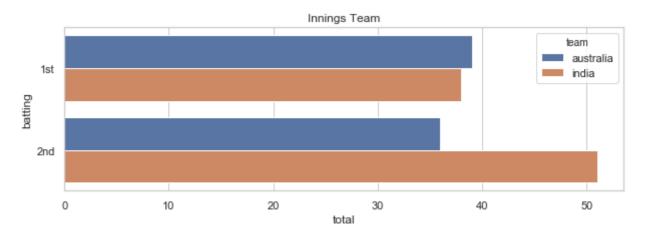
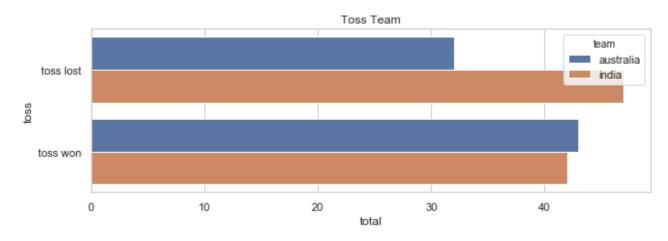


Fig 1.2 - Toss Team

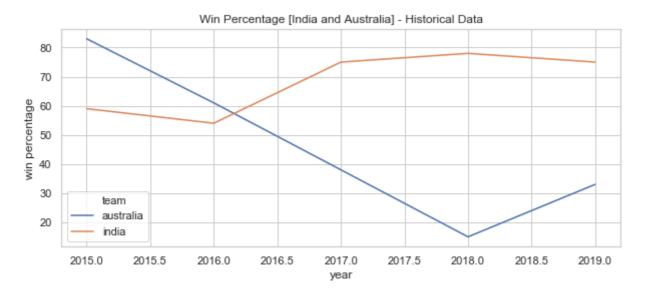
	team	toss	total	won	lost
0	australia	toss lost	32	18	14
1	australia	toss won	43	22	21
2	india	toss lost	47	30	17
3	india	toss won	42	31	11



2. Team Stats since year 2015

Fig 2.1 - Win Percentage [India and Australia] - Historical Data

	year	team	won	lost	win percentage
0	2015	australia	15	3	83
1	2015	india	13	9	59
2	2016	australia	17	11	61
3	2016	india	7	6	54
4	2017	australia	5	8	38
5	2017	india	21	7	75
6	2018	australia	2	11	15
7	2018	india	14	4	78
8	2019	australia	1	2	33
9	2019	india	6	2	75



	team	won	lost	win percentage
0	australia	40	35	53
1	india	61	28	69

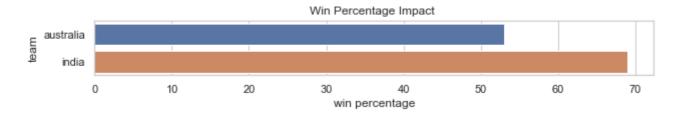
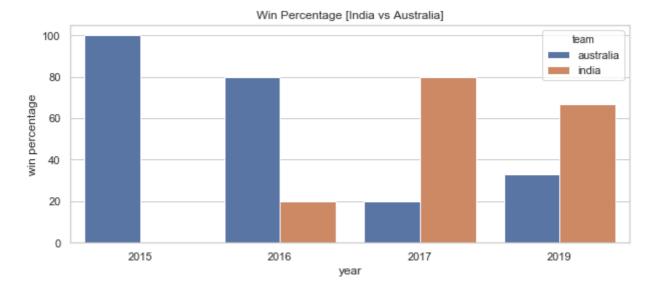


Fig 2.2 - Win Percentage [India vs Australia]

	year	team	won	lost	win percentage
0	2015	australia	2	0	100
1	2015	india	0	2	0
2	2016	australia	4	1	80
3	2016	india	1	4	20
4	2017	australia	1	4	20
5	2017	india	4	1	80
6	2019	australia	1	2	33

	year	ar team won		lost	win percentage
7	2019	india	2	1	67



	team	won	lost	win percentage
0	australia	8	7	53
1	india	7	8	47

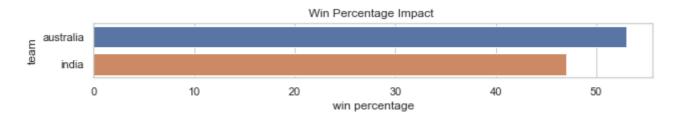
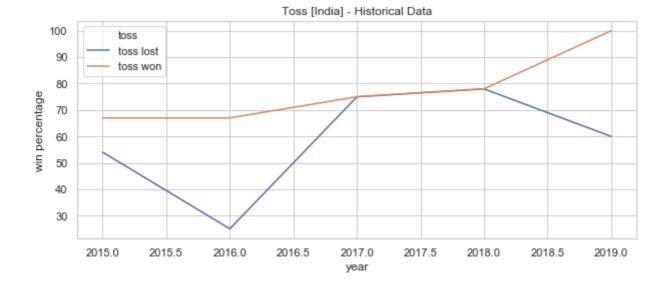


Fig 2.3 - Toss [India] - Historical Data

	year	toss	won	lost	win percentage
0	2015	toss lost	7	6	54
1	2015	toss won	6	3	67
2	2016	toss lost	1	3	25
3	2016	toss won	6	3	67
4	2017	toss lost	12	4	75
5	2017	toss won	9	3	75
6	2018	toss lost	7	2	78
7	2018	toss won	7	2	78
8	2019	toss lost	3	2	60
9	2019	toss won	3	0	100



	toss	won	lost	win percentage
0	toss lost	30	17	64
1	toss won	31	11	74

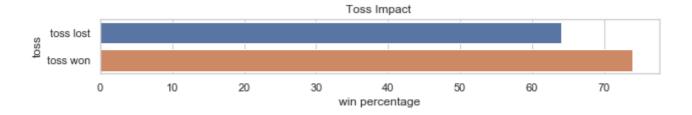
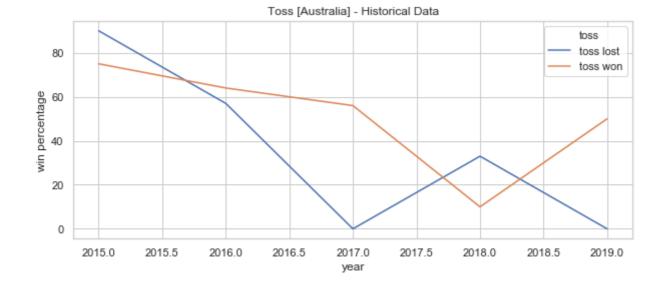


Fig 2.4 - Toss [Australia] - Historical Data

	year	toss	won	lost	win percentage
0	2015	toss lost	9	1	90
1	2015	toss won	6	2	75
2	2016	toss lost	8	6	57
3	2016	toss won	9	5	64
4	2017	toss lost	0	4	0
5	2017	toss won	5	4	56
6	2018	toss lost	1	2	33
7	2018	toss won	1	9	10
8	2019	toss lost	0	1	0
9	2019	toss won	1	1	50



	toss	won	lost	win percentage
0	toss lost	18	14	56
1	toss won	22	21	51

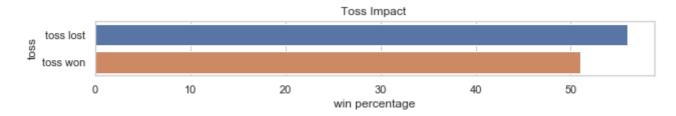
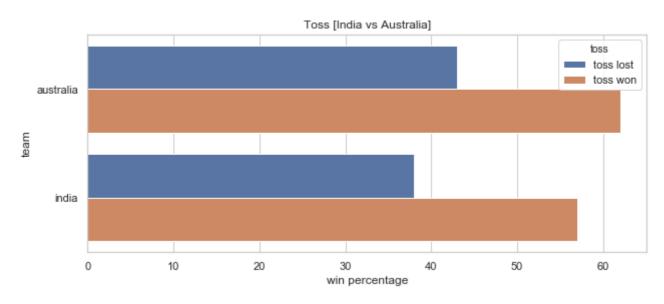


Fig 2.5 - Toss [India vs Australia]

	team	toss	won	lost	win percentage
0	australia	toss lost	3	4	43
1	australia	toss won	5	3	62
2	india	toss lost	3	5	38
3	india	toss won	4	3	57



	toss	won	lost	win percentage
0	toss lost	6	9	40

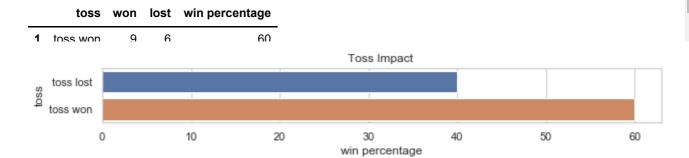
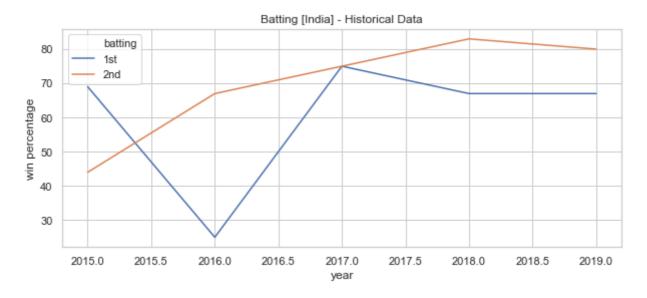


Fig 2.6 - Batting [India] - Historical Data

	year	batting	won	lost	win percentage
0	2015	1st	9	4	69
1	2015	2nd	4	5	44
2	2016	1st	1	3	25
3	2016	2nd	6	3	67
4	2017	1st	9	3	75
5	2017	2nd	12	4	75
6	2018	1st	4	2	67
7	2018	2nd	10	2	83
8	2019	1st	2	1	67
9	2019	2nd	4	1	80



	batting	won	lost	win percentage
0	1st	25	13	66
1	2nd	36	15	71

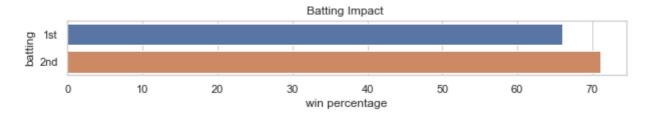
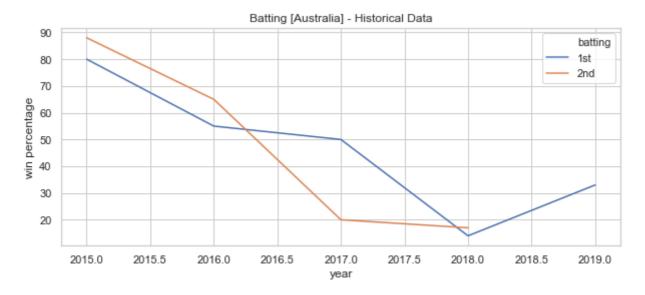


Fig 2.7 - Batting [Australia] - Historical Data

	year	batting	won	lost	win percentage
0	2015	1st	8	2	80
1	2015	2nd	7	1	88
2	2016	1st	6	5	55
3	2016	2nd	11	6	65
4	2017	1st	4	4	50
5	2017	2nd	1	4	20
6	2018	1st	1	6	14
7	2018	2nd	1	5	17
8	2019	1st	1	2	33



	batting	won	lost	win percentage
0	1st	20	19	51
1	2nd	20	16	56

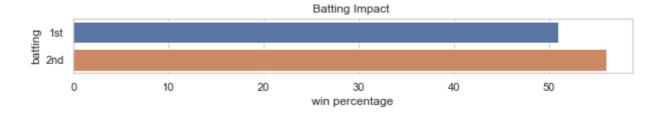


Fig 2.8 - Batting [India vs Australia]

	team	batting	won	lost	win percentage
0	australia	1st	4	5	44
1	australia	2nd	4	2	67
2	india	1st	2	4	33
3	india	2nd	5	4	56



	batting	won	lost	win percentage
0	1st	6	9	40
1	2nd	9	6	60

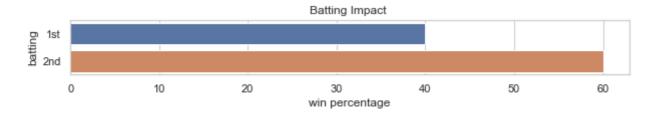
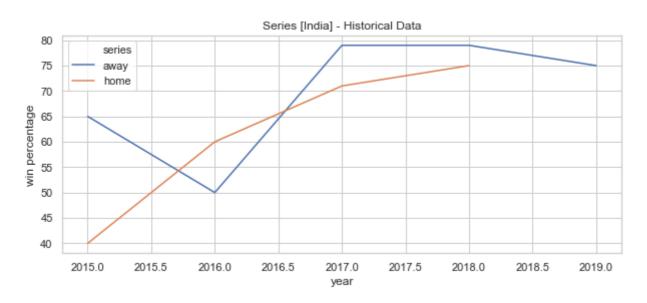


Fig 2.9 - Series [India] - Historical Data

	year	series	won	lost	win percentage
0	2015	away	11	6	65
1	2015	home	2	3	40
2	2016	away	4	4	50
3	2016	home	3	2	60
4	2017	away	11	3	79
5	2017	home	10	4	71
6	2018	away	11	3	79
7	2018	home	3	1	75
8	2019	away	6	2	75

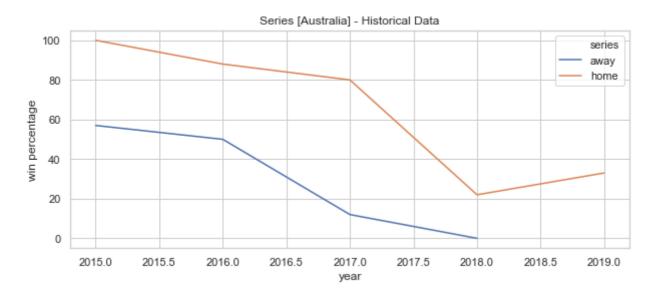


	series	won	lost	win percentage
0	away	43	18	70
1	home	18	10	64

	Series Impact						
ω away							
home							
		0 20		40) 50	60	70
				win percenta	ge		

Fig 2.10 - Series [Australia] - Historical Data

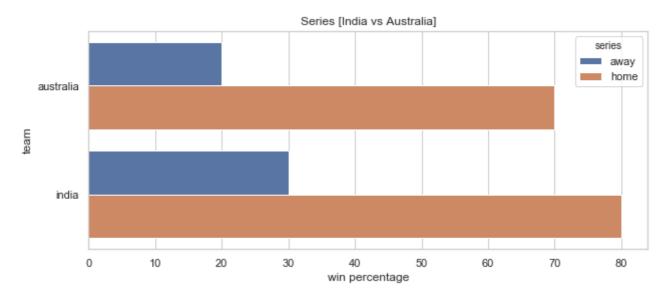
	year	series	won	lost	win percentage
0	2015	away	4	3	57
1	2015	home	11	0	100
2	2016	away	10	10	50
3	2016	home	7	1	88
4	2017	away	1	7	12
5	2017	home	4	1	80
6	2018	away	0	4	0
7	2018	home	2	7	22
8	2019	home	1	2	33



	series	won	lost	win percentage					
0	away	15	24	38					
1	home	25	11	69					
					Serie	s Impact			
series	away								
Ser	home								
	0		1	0 20	30 win p	40 ercentage	50	60	70

Fig 2.11 - Series [India vs Australia]

	team	series	won	lost	win percentage
0	australia	away	1	4	20
1	australia	home	7	3	70
2	india	away	3	7	30
3	india	home	4	1	80



	series	won	lost	win percentage					
0	away	4	11	27					
1	home	11	4	73					
					Se	eries Impact			
es	away								
Ser	away								
	0		10	20	30	40	50	60	70

win percentage

Fig 2.12 - Scores [India and Australia] - Historical Data

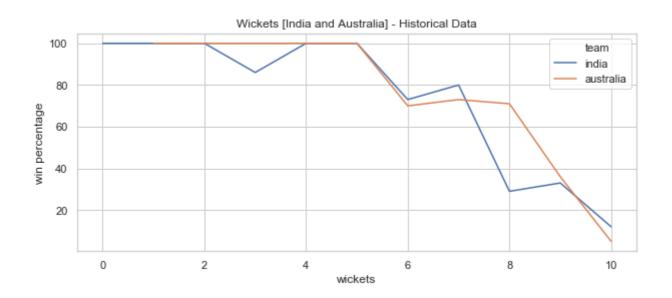
	score_range	team	won	lost	win percentage
0	90	australia	1	0	100
1	90	india	3	2	60
2	120	australia	2	3	40
3	120	india	2	0	100
4	150	australia	0	3	0
5	150	india	4	3	57
6	180	australia	4	5	44
7	180	india	5	2	71
8	210	australia	7	5	58
9	210	india	9	5	64
10	240	australia	4	4	50
11	240	india	11	6	65
12	270	australia	7	10	41
13	270	india	11	4	73
14	300	australia	7	3	70
15	300	india	9	6	60
16	330	australia	4	1	80
17	330	india	3	0	100
18	360	australia	3	1	75
19	360	india	3	0	100
20	390	australia	1	0	100
21	390	india	1	0	100



	team	won	lost	win percentage
0	australia	40	35	53
1	india	61	28	69

Fig 2.13 - Wickets [India and Australia] - Historical Data

	wickets	team	won	lost	win percentage
0	0	india	1	0	100
1	1	australia	1	0	100
2	1	india	7	0	100
3	2	australia	1	0	100
4	2	india	10	0	100
5	3	australia	4	0	100
6	3	india	6	1	86
7	4	australia	4	0	100
8	4	india	11	0	100
9	5	australia	5	0	100
10	5	india	5	0	100
11	6	australia	7	3	70
12	6	india	8	3	73
13	7	australia	8	3	73
14	7	india	8	2	80
15	8	australia	5	2	71
16	8	india	2	5	29
17	9	australia	4	7	36
18	9	india	1	2	33
19	10	australia	1	20	5
20	10	india	2	15	12



	team	won	iost	win percentage
0	australia	40	35	53
1	india	61	28	69

Fig 2.14 - Scores [India vs Australia]

	score_range	team	won	lost	win percentage
0	120	australia	0	1	0
1	180	australia	0	1	0
2	210	australia	0	1	0
3	210	india	1	1	50
4	240	australia	1	1	50
5	240	india	2	2	50
6	270	australia	2	2	50
7	270	india	3	1	75
8	300	australia	3	0	100
9	300	india	0	4	0
10	330	australia	2	1	67
11	330	india	1	0	100



	team	won	lost	win percentage
0	australia	8	7	53
1	india	7	8	47

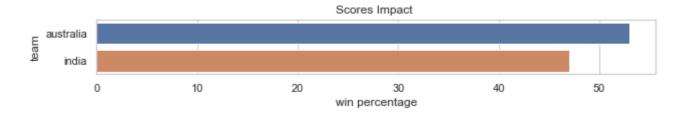
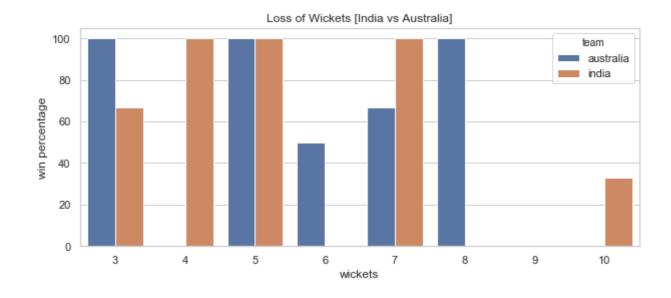
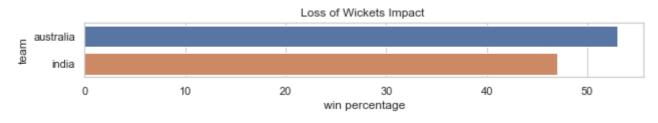


Fig 2.15 - Loss of Wickets [India vs Australia]

	wickets	team	won	lost	win percentage
0	3	australia	1	0	100
1	3	india	2	1	67
2	4	india	2	0	100
3	5	australia	3	0	100
4	5	india	1	0	100
5	6	australia	1	1	50
6	6	india	0	1	0
7	7	australia	2	1	67
8	7	india	1	0	100
9	8	australia	1	0	100
10	8	india	0	3	0
11	9	australia	0	3	0
12	9	india	0	1	0
13	10	australia	0	2	0
14	10	india	1	2	33



	team	won	lost	win percentage
0	australia	8	7	53
1	india	7	8	47



3. Ground Stats

Fig 3.1 - Toss - Historical Data

	ground	toss	won	lost	win percentage
0	delhi	toss lost	14	9	61
1	delhi	toss won	9	14	39
2	hyderabad (deccan)	toss lost	7	11	39
3	hyderabad (deccan)	toss won	11	7	61
4	mohali	toss lost	14	10	58
5	mohali	toss won	10	14	42
6	nagpur	toss lost	13	9	59
7	nagpur	toss won	9	13	41
8	ranchi	toss lost	1	2	33
9	ranchi	toss won	2	1	67

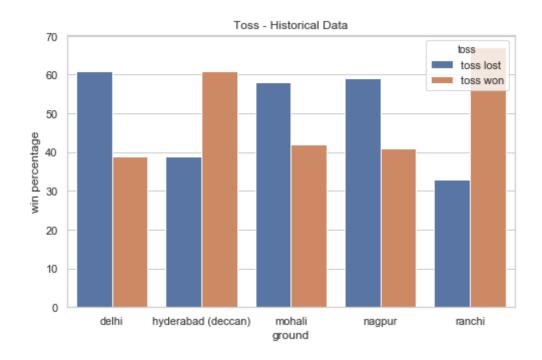


Fig 3.2 - Toss['India'] - Historical Data

	ground	toss	win percentage
0	delhi	toss lost	9
1	delhi	toss won	9
2	hyderabad (deccan)	toss lost	7
3	hyderabad (deccan)	toss won	5
4	mohali	toss lost	5
5	mohali	toss won	10
6	nagpur	toss lost	9
7	nagpur	toss won	8
8	ranchi	toss lost	2
9	ranchi	toss won	1

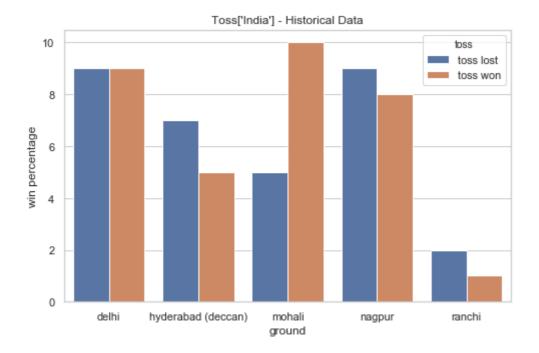


Fig 3.3 - Toss['Australia'] - Historical Data

	ground	toss	win percentage
0	delhi	toss lost	3
1	delhi	toss won	2
2	hyderabad (deccan)	toss won	3
3	mohali	toss lost	3
4	mohali	toss won	3
5	nagpur	toss lost	2
6	nagpur	toss won	4

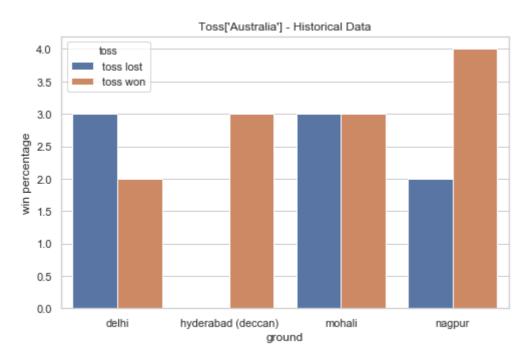


Fig 3.4 - Batting - Historical Data

	ground	batting	won	lost	win percentage
0	delhi	1st	11	12	48
1	delhi	2nd	12	11	52
2	hyderabad (deccan)	1st	10	8	56
3	hyderabad (deccan)	2nd	8	10	44
4	mohali	1st	15	9	62
5	mohali	2nd	9	15	38
6	nagpur	1st	11	11	50
7	nagpur	2nd	11	11	50

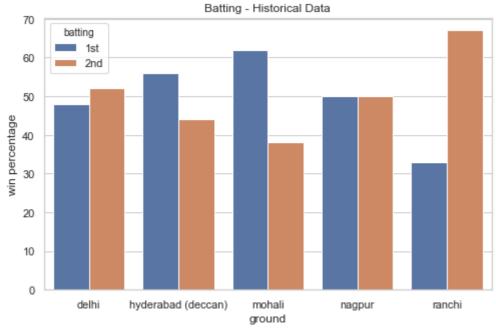


Fig 3.5 - Batting['India'] - Historical Data

	ground	batting	win percentage
0	delhi	1st	7
1	delhi	2nd	11
2	hyderabad (deccan)	1st	5
3	hyderabad (deccan)	2nd	7
4	mohali	1st	9
5	mohali	2nd	6
6	nagpur	1st	8
7	nagpur	2nd	9
8	ranchi	2nd	3

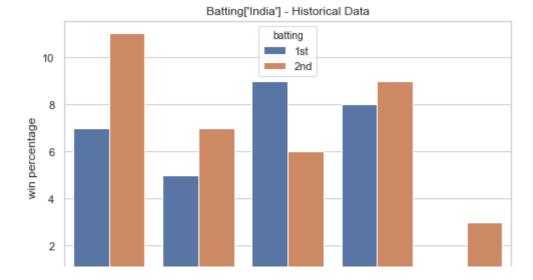


Fig 3.6 - Batting['Australia'] - Historical Data

	ground	batting	win percentage
0	delhi	1st	3
1	delhi	2nd	2
2	hyderabad (deccan)	1st	3
3	mohali	1st	3
4	mohali	2nd	3
5	nagpur	1st	3
6	nagpur	2nd	3

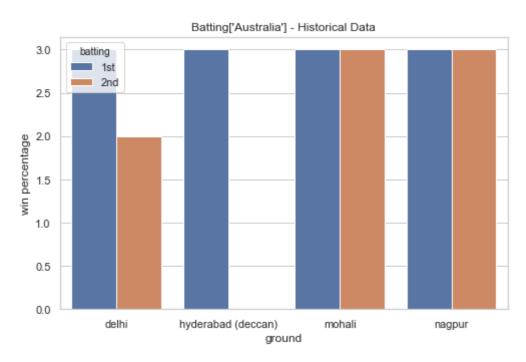
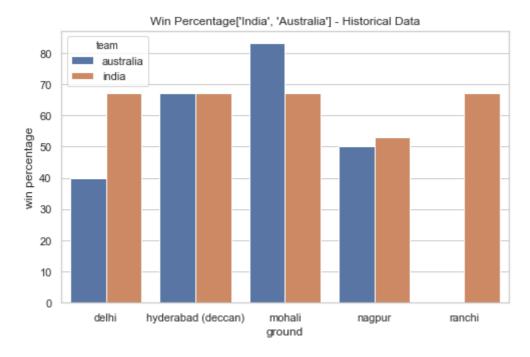


Fig 3.7 - Win Percentage['India', 'Australia'] - Historical Data

	ground	team	won	lost	win percentage
0	delhi	australia	2	3	40

	ground	team	won	lost	win percentage
1	delhi	india	12	6	67
2	hyderabad (deccan)	australia	2	1	67
3	hyderabad (deccan)	india	8	4	67
4	mohali	australia	5	1	83
5	mohali	india	10	5	67
6	nagpur	australia	3	3	50
7	nagpur	india	9	8	53
8	ranchi	india	2	1	67



4. Average Stats

Fig 4.1 - Team Average Wickets

	team	batting	wickets
0	australia	1st	6.66667
1	australia	2nd	9.5
2	india	1st	7.18182
3	india	2nd	5.94118

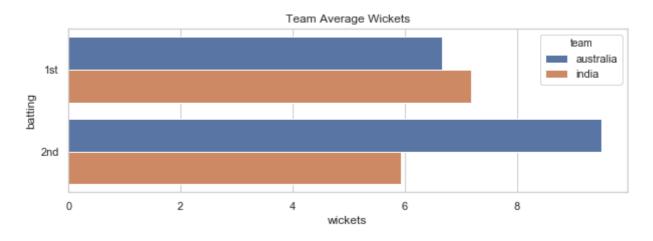


Fig 4.2 - Team Average Scores

	team	batting	score
0	australia	1st	289.667
1	australia	2nd	169.5
2	india	1st	293.364
3	india	2nd	257.529

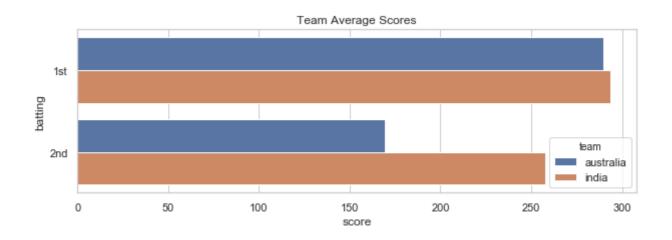


Fig 4.3 - Ground Average Scores

	ground	batting	score
0	delhi	1st	239.783
1	delhi	2nd	211.391
2	hyderabad (deccan)	1st	253.778
3	hyderabad (deccan)	2nd	214.167
4	mohali	1st	268
5	mohali	2nd	228.25
6	nagpur	1st	278.227
7	nagpur	2nd	246.636
8	ranchi	1st	233.667
9	ranchi	2nd	228.667

Fig 4.4 - Team Average Scores [Nagpur]

	ground	team	batting	score
11	nagpur	australia	1st	303
12	nagpur	australia	2nd	206.667
13	nagpur	india	1st	306.25
14	nagpur	india	2nd	261.667

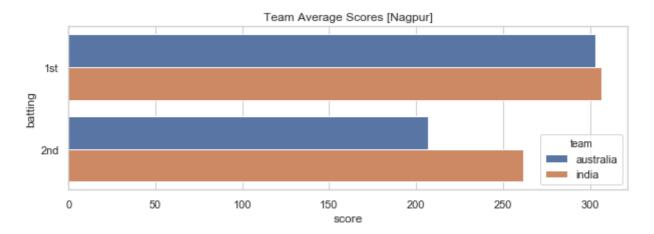


Fig 4.5 - Team Average Scores [Ranchi]

	ground	team	batting	score
15	ranchi	india	2nd	228.667

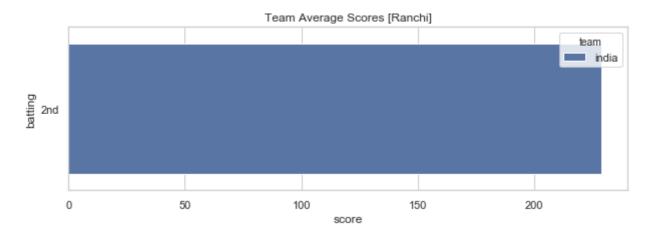


Fig 4.6 - Team Average Scores [Mohali]

	ground	team	batting	score
7	mohali	australia	1st	232.333
8	mohali	australia	2nd	280

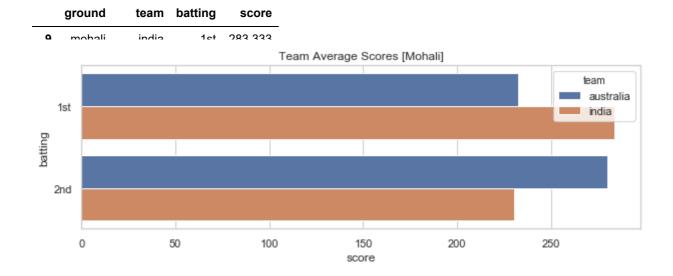


Fig 4.7 - Team Average Scores [Delhi]

	ground	team	batting	score
0	delhi	australia	1st	253.667
1	delhi	australia	2nd	232
2	delhi	india	1st	244.143
3	delhi	india	2nd	217.909

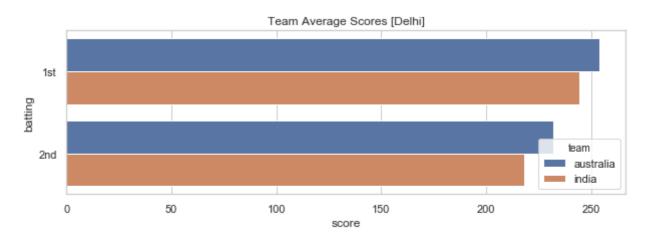


Fig 4.8 - Team Average Scores [Hyderabad (Deccan)]

	ground	team	batting	score
4	hyderabad (deccan)	australia	1st	294
5	hyderabad (deccan)	india	1st	298
6	hyderabad (deccan)	india	2nd	238.857

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0

5. Batting Stats since year 2015

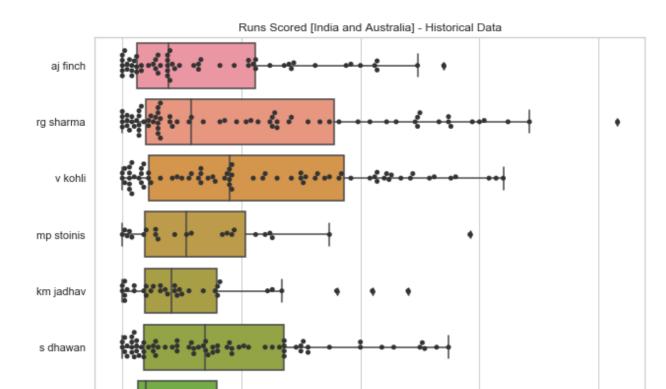
Fig 5.1 - Runs Scored [India and Australia] - Historical Data

	player	runs
17	v kohli	56.9079
12	rg sharma	54.08
15	se marsh	48.2778
18	v shankar	45
14	s dhawan	42.3243

8	mp stoinis	34.913
16	ut khawaja	33.4706

at rayudu 37.5385

aj finch 35.6667



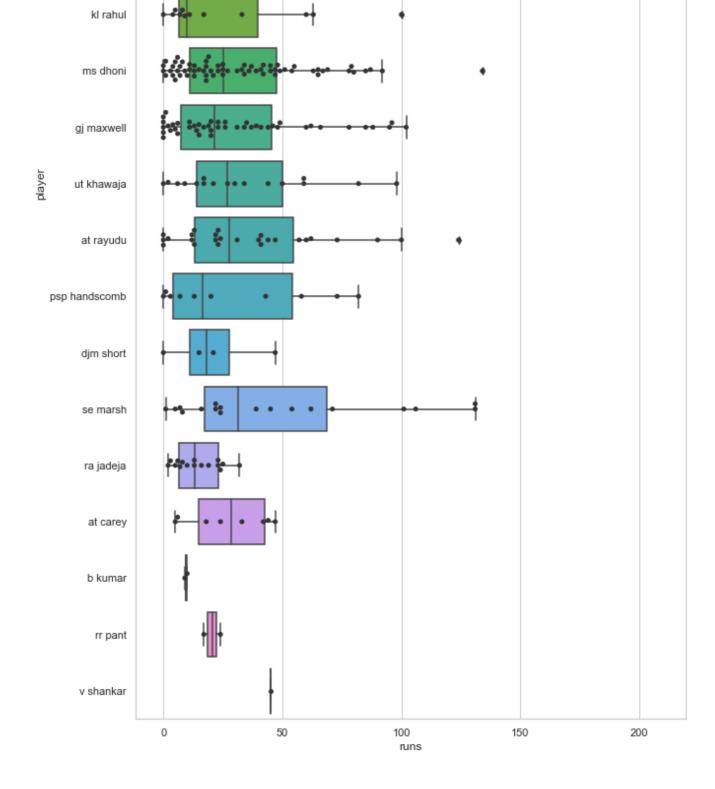


Fig 5.2 - Runs Scored [India vs Australia]

	player	runs
9	rg sharma	72.9333
11	se marsh	60.6667
0	aj finch	51.2308
13	v kohli	45.4375
12	ut khawaja	38
10	s dhawan	36.0909
7	psp handscomb	35
4	km jadhav	33.1667
6	ms dhoni	33.0714

	player	runs
5	mp stoinis	29.875
3	gj maxwell	29.5833
1	at carey	15.6667
2	at ravudu	15 6667

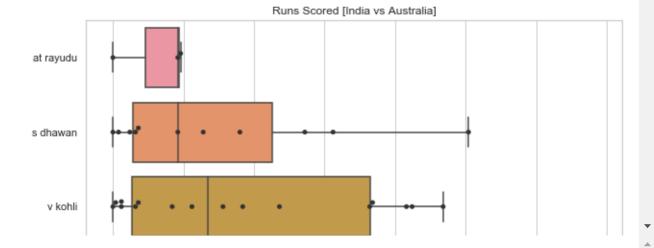
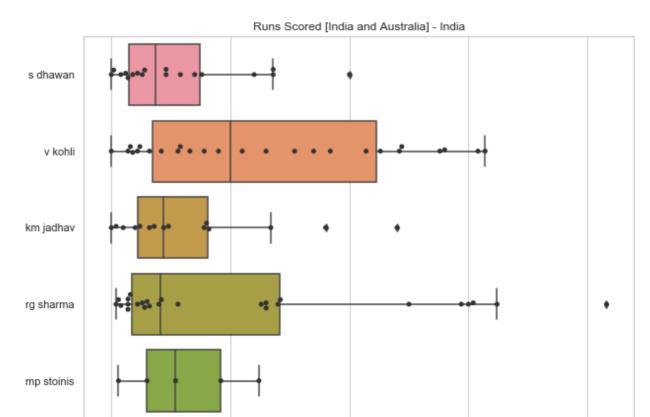


Fig 5.3 - Runs Scored [India and Australia] - India

	player	runs
0	aj finch	83.3333
13	v kohli	64.7692
10	rg sharma	55.9231
1	at rayudu	54.25
7	ms dhoni	34.36
5	km jadhav	33.7333
6	mp stoinis	30.6
12	s dhawan	28.2778
11	rr pant	20.5
8	psp handscomb	19.6667
3	gj maxwell	19.3333
2	b kumar	10
9	ra jadeja	10
4	kl rahul	8



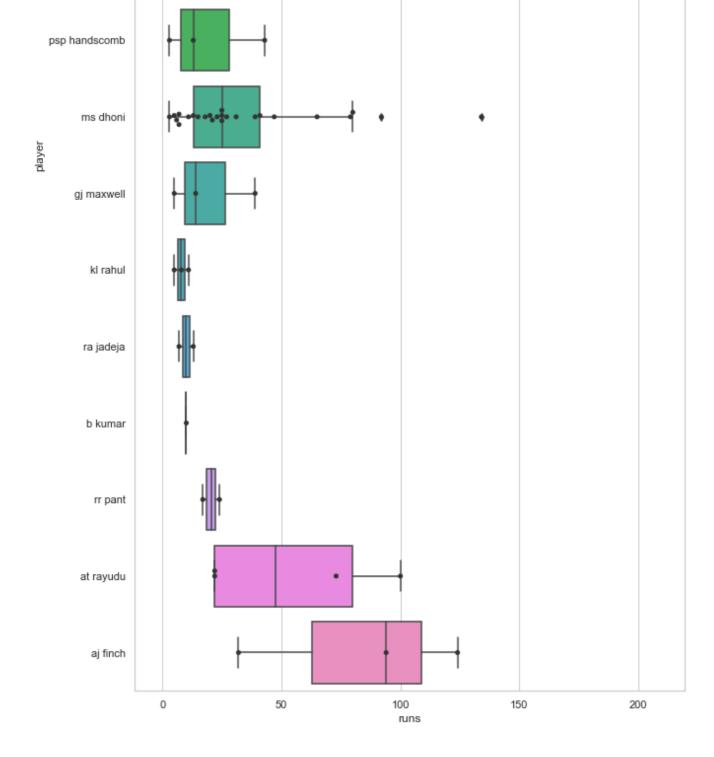


Fig 5.4 - Fours Hit [India and Australia] - India

	player	fours
0	aj finch	9.33333
13	v kohli	5.65385
10	rg sharma	5.19231
1	at rayudu	4.75
12	s dhawan	3.72222
5	km jadhav	3.53333
7	ms dhoni	2.76
11	rr pant	2.5
6	mp stoinis	2.4
2	b kumar	1

	player	fours
3	gj maxwell	1
4	kl rahul	1
8	psp handscomb	1

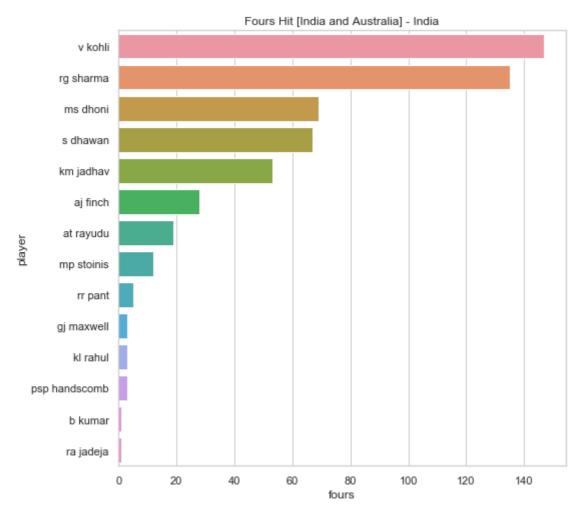


Fig 5.5 - Fours Hit [India vs Australia]

	player	fours
9	rg sharma	5.33333
11	se marsh	4.83333

	player	fours
0	aj finch	4.76923
10	s dhawan	3.90909
4	km jadhav	3.66667
12	ut khawaja	3.66667
13	v kohli	3.4375
3	gj maxwell	2.83333
1	at carey	2.66667
5	mp stoinis	2.25
7	psp handscomb	2.16667
6	ms dhoni	1.71429
2	at rayudu	1.33333
8	ra jadeja	0.666667

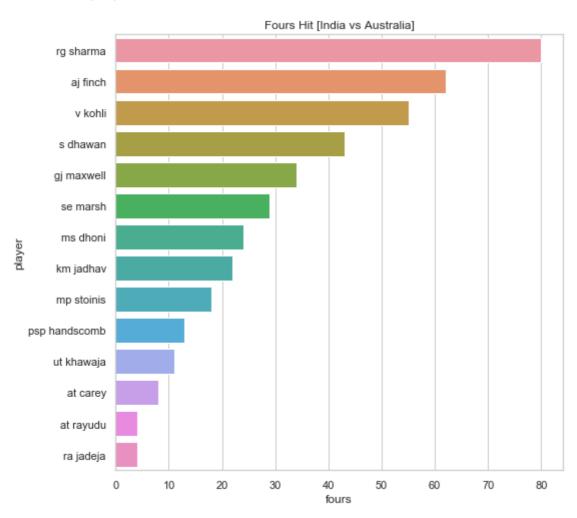


Fig 5.6 - Fours Hit [India and Australia] - India

	player	fours
0	aj finch	9.33333
13	v kohli	5.65385
10	rg sharma	5.19231
1	at rayudu	4.75
12	s dhawan	3.72222
5	km jadhav	3.53333
7	ms dhoni	2.76
11	rr pant	2.5
6	mp stoinis	2.4
2	b kumar	1
3	gj maxwell	1
4	kl rahul	1
8	psp handscomb	1
9	ra jadeja	0.5

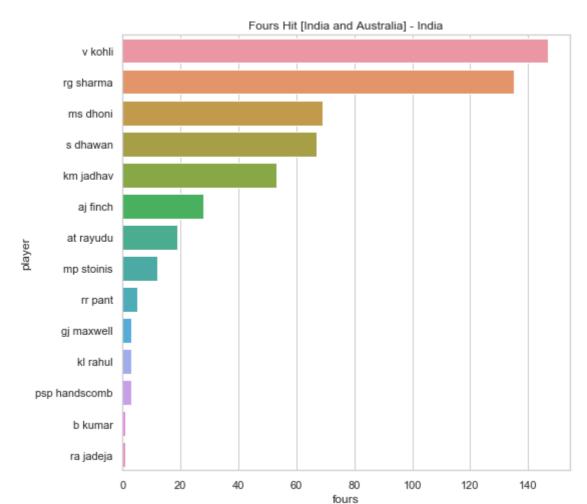


Fig 5.7 - Sixes Hit [India and Australia] - India

	player	sixes
0	aj finch	2.66667
10	rg sharma	2.30769
3	gj maxwell	2
1	at rayudu	1.25
6	mp stoinis	1.2
13	v kohli	1
7	ms dhoni	0.92
5	km jadhav	0.8
11	rr pant	0.5
12	s dhawan	0.388889
4	kl rahul	0.333333
8	psp handscomb	0.333333
2	b kumar	0
9	ra jadeja	0

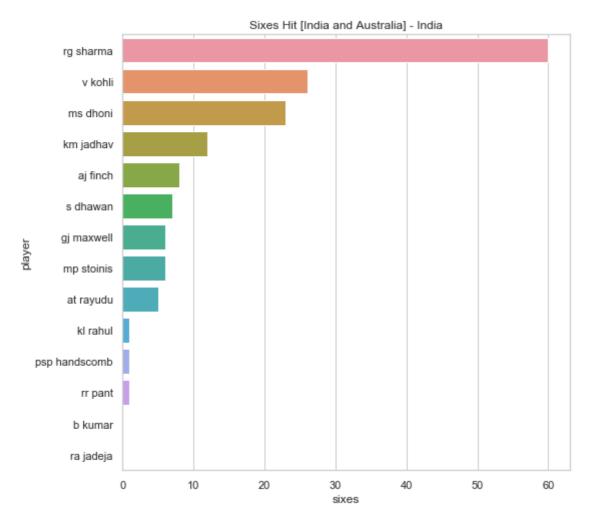


Fig 5.8 - Sixes Hit [India vs Australia]

player sixes

	player	sixes
9	rg sharma	2.8
3	gj maxwell	1.08333
0	aj finch	1.07692
5	mp stoinis	1
6	ms dhoni	0.857143
10	s dhawan	0.545455
7	psp handscomb	0.5
11	se marsh	0.5
13	v kohli	0.375
2	at rayudu	0.333333
4	km jadhav	0.333333
1	at carey	0
8	ra jadeja	0
12	ut khawaja	0

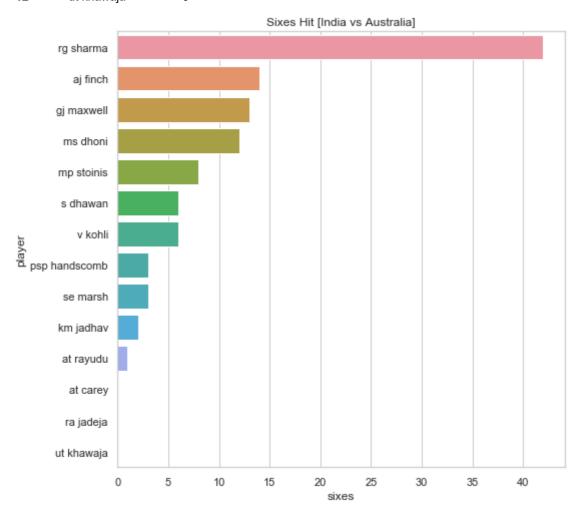
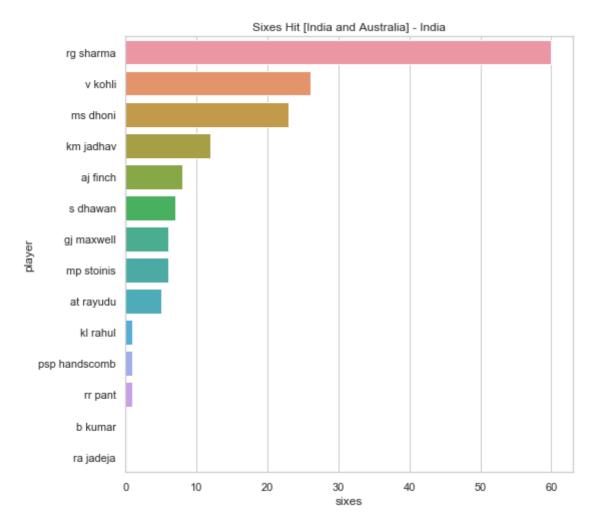


Fig 5.9 - Sixes Hit [India and Australia] - India

	player	sixes
0	aj finch	2.66667
10	rg sharma	2.30769
3	gj maxwell	2
1	at rayudu	1.25

	player	sixes
6	mp stoinis	1.2
13	v kohli	1
7	ms dhoni	0.92
5	km jadhav	0.8
11	rr pant	0.5
12	s dhawan	0.388889
4	kl rahul	0.333333
8	psp handscomb	0.333333
2	b kumar	0
9	ra jadeja	0



6. Bowling Stats since year 2015

Fig 6.1 - Wickets [India and Australia] - Historical Data

	player	wickets
8	jj bumrah	78
11	kuldeep yadav	77
23	ys chahal	71
4	b kumar	70
16	pj cummins	53
0	a zampa	42

	player	wickets
12	mohammed shami	40
17	ra jadeja	37
10	km jadhav	25
6	gj maxwell	23
13	mp stoinis	22
14	nm coulter-nile	22
7	ja richardson	13
2	aj tye	12
15	nm lyon	7
20	sn thakur	6
9	jp behrendorff	3
3	at rayudu	1
1	aj finch	0
5	djm short	0
18	rg sharma	0
19	s kaul	0
21	v kohli	0
22	v shankar	0

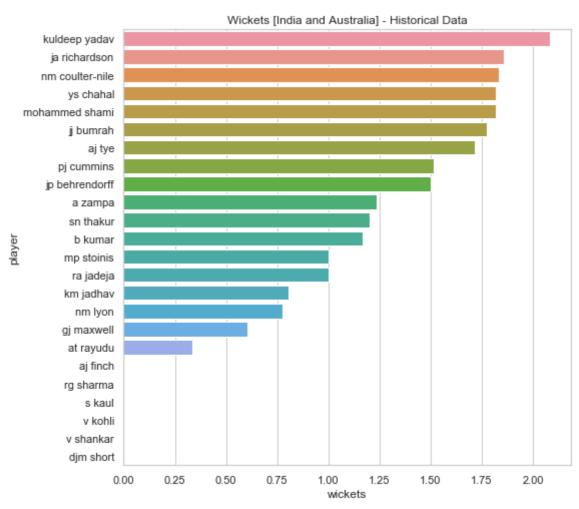


Fig 6.2 - Wickets [India vs Australia]

player wickets

	player	wickets
3	b kumar	14
19	ys chahal	12
12	nm coulter-nile	10
9	kuldeep yadav	9
6	jj bumrah	7
11	mp stoinis	6
10	mohammed shami	6
5	ja richardson	6
15	ra jadeja	5
14	pj cummins	4
0	a zampa	4
7	jp behrendorff	3
8	km jadhav	2
4	gj maxwell	1
13	nm lyon	1
1	aj finch	0
2	at rayudu	0
16	rg sharma	0
17	v kohli	0

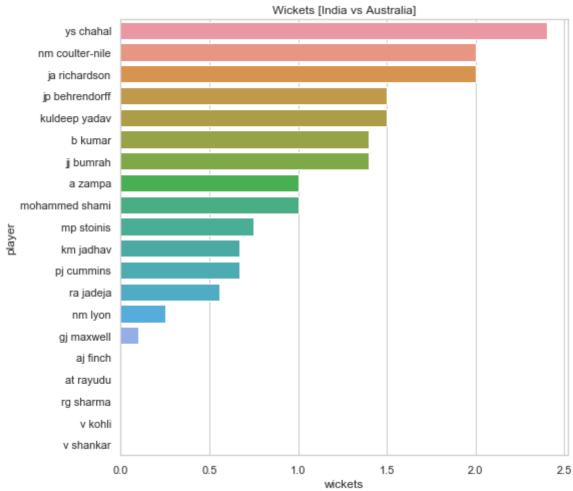


Fig 6.3 - Wickets [India and Australia] - India

	player	wickets
4	jj bumrah	32
2	b kumar	24
13	ys chahal	21
6	kuldeep yadav	20
11	ra jadeja	11
9	nm coulter-nile	10
5	km jadhav	8
0	a zampa	4
10	pj cummins	4
7	mohammed shami	3
8	mp stoinis	2
1	aj finch	0
3	gj maxwell	0
12	v kohli	0

