TEST CRICKET SQL CODES

SELECT * FROM teams

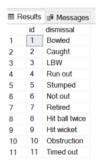|	id	short_name	name	coach
1	5001	AUS	Australia	Justin Langer
2	5002	BAN	Bangladesh	Russell Domingo
3	5003	ENG	England	Chris Silverwood
4	5004	IND	India	Ravi Shastri
5	5005	NZ	New Zealand	Gary Stead
6	5006	PAK	Pakistan	Misbah-ul-Haq
7	5007	SA	South Africa	Mark Boucher
8	5008	SL	Sri Lanka	Mickey Arthur
9	5009	WI	West Indies	Phil Simmons

SELECT * FROM venues

id	name	city	country
1	Edgbaston	Birmingham	United Kingdom
2	Lords	London	United Kingdom
3	Headingley	Leeds	United Kingdom
4	Old Trafford	Manchester	United Kingdom
5	The Oval	London	United Kingdom
6	The Gabba	Brisbane	Australia
7	Adelaide Oval	Adelaide	Australia
8	Optus Stadium	Perth	Australia
9	Melbourne Cricket Ground	Melbourne	Australia
10	Sydney Cricket Ground	Sydney	Australia
11	ACA-VDCA Stadium	Madhurawada	India
12	MCA Stadium	Pune	India
13	JSCA International Stadium	Jharkhand	India
14	Holkar Stadium	Indore	India
15	Eden Gardens	Kolkata	India
16	Basin Reserve	Wellington	New Zealand
17	Hagley Oval	Christchurch	New Zealand
18	Centurion Park	Centurion	South Africa
19	Newlands Cricket Ground	Cape Town	South Africa
20	St George's Park	Port Elizabeth	South Africa
21	Wanderers Stadium	Johannesburg	South Africa
22	Rawalpindi Stadium	Rawalpindi	Pakistan
23	National Stadium	Karachi	Pakistan
24	Gaile International Stadium	Gaile	Sri Lanka

SELECT * FROM umpires

id	name	country
1	Aleem Dar	Pakistan
2	Nigel Llong	England
3	Richard Illingworth	England
4	Bruce Oxenford	Australia
5	Marais Erasmus	South Africa
6	Rod Tucker	Australia
7	Kumar Dharmasena	Sri Lanka
8	Richard Kettleborough	England
9	Paul Reiffel	Australia
10	Chris Gaffaney	New Zealand
11	Michael Gough	England
12	Joel Wilson	West Indies
13	Wayne Knights	New Zealand
14	Chris Brown	New Zealand
15	Adrian Holdstock	South Africa
16	Paul Wilson	Australia
17	Ruchira Palliyaguruge	Sri Lanka
18	Ahsan Raza	Pakistan
19	Sharfuddoula	Bangladesh
20	Anil Chaudhary	India
21	Nitin Menon	India
22	Virender Sharma	India

SELECT * FROM wickets

	id	dismissal
1	1	Bowled
2	2	Caught
3	3	LBW
4	4	Run out
5	5	Stumped
6	6	Not out
7	7	Retired
8	8	Hit ball twice
9	9	Hit wicket
10	10	Obstruction
11	11	Timed out

SELECT * FROM roles

	id	role
1	1	Batsman
2	2	Bowler
3	3	Wicket-keeper
4	4	Captain
5	5	All-rounder

SELECT * FROM players

	id	name	role_id	team_id
1	8101	David Warner	1	5001
2	8102	Marcus Harris	1	5001
3	8103	Marnus Labuschagne	1	5001
4	8104	Steve Smith	1	5001
5	8105	Matthew Wade	1	5001
6	8106	Travis Head	1	5001
7	8107	Tim Paine	4	5001
8	8108	Pat Cummins	2	5001
9	8109	Mitchell Starc	2	5001
10	8110	Nathan Lyon	2	5001
11	8111	Josh Hazlewood	2	5001
12	8112	Cameron Bancroft	1	5001
13	8113	Usman Khawaja	1	5001
14	8114	James Pattinson	2	5001
15	8115	Peter Siddle	2	5001
16	8116	Mitchell Marsh	5	5001
17	8117	Michael Neser	2	5001
18	8118	Joe Burns	1	5001
19	8119	Cameron Green	5	5001
20	8120	Will Pucovski	1	5001
21	8201	Shadman Islam	5	5002
22	8202	Imrul Kayes	1	5002
23	8203	Mominul Haque	4	5002
24	8204	Mohammad Mithun	1	5002

SELECT * FROM match

	id	start_date	end_date	venue_id	teamA	teamB	umpirea_id	umpireb_id	winner	potm
1	1001	2019-08-01	2019-08-05	1	5003	5001	1	12	5001	8104
2	1002	2019-08-14	2019-08-18	2	5003	5001	1	10	NULL	8304
3	1003	2019-08-22	2019-08-26	3	5003	5001	12	10	5003	8304
4	1004	2019-09-04	2019-09-08	4	5003	5001	7	5	5001	8104
5	1005	2019-09-12	2019-09-16	5	5003	5001	7	5	5003	8309
6	1101	2019-08-14	2019-08-18	24	5008	5005	3	11	5008	8801
7	1102	2019-08-22	2019-08-26	25	5008	5005	4	11	5005	8501
8	1201	2019-08-22	2019-08-26	26	5009	5004	6	8	5004	8405
9	1202	2019-08-30	2019-09-03	27	5009	5004	9	8	5004	8406
10	1301	2019-10-02	2019-10-06	11	5004	5007	3	10	5004	8412
11	1302	2019-10-10	2019-10-13	12	5004	5007	10	2	5004	8404
12	1303	2019-10-19	2019-10-23	13	5004	5007	3	2	5004	8412
13	1401	2019-11-14	2019-11-18	14	5004	5002	5	6	5004	8401
14	1402	2019-11-22	2019-11-26	15	5004	5002	5	12	5004	8409
15	1501	2019-11-21	2019-11-25	6	5001	5006	3	8	5001	8103
16	1502	2019-11-29	2019-12-03	7	5001	5006	3	11	5001	8101
17	1601	2019-12-11	2019-12-15	22	5006	5008	11	8	NULL	8615
18	1602	2019-12-19	2019-12-23	23	5006	5008	4	12	5006	8615
19	1701	2019-12-12	2019-12-16	8	5001	5005	1	2	5001	8109
20	1702	2019-12-25	2019-12-28	9	5001	5005	2	5	5001	8106
21	1703	2020-01-02	2020-01-05	10	5001	5005	1	5	5001	8103
22	1801	2019-10-26	2019-12-30	18	5007	5003	9	10	5007	8706
23	1802	2020-01-03	2020-01-07	19	5007	5003	7	9	5003	8304
24	1803	2020-01-16	2020-01-20	20	5007	5003	4	6	5003	8319

SELECT * FROM testruns

	match_id	team_id	innings	player_id	runs	balls	fours	sixes	bowler_id	wicket_id	notes
1	1001	5001	1	8112	8	25	2	0	8310	2	Caught by Joe Root
2	1001	5001	1	8101	2	14	0	0	8310	3	NULL
3	1001	5001	1	8113	13	23	2	0	8308	2	Caught by Jonny Bairstow
4	1001	5001	1	8104	144	219	16	2	8310	1	NULL
5	1001	5001	1	8106	35	61	5	0	8308	3	NULL
6	1001	5001	1	8105	1	5	0	0	8308	3	NULL
7	1001	5001	1	8107	5	14	0	0	8310	2	Caught by Rory Burns
8	1001	5001	1	8114	0	2	0	0	8310	3	NULL
9	1001	5001	1	8108	5	10	1	0	8304	3	NULL
10	1001	5001	1	8115	44	85	4	0	8312	2	Caught by Jos Buttler
11	1001	5001	1	8110	12	26	3	0	NULL	6	NULL
12	1001	5001	1	NULL	15	NULL	NULL	NULL	NULL	NULL	NULL
13	1001	5003	1	8301	133	312	17	0	8110	2	Caught by Tim Paine
14	1001	5003	1	8315	10	22	2	0	8114	2	Caught by Steve Smith
15	1001	5003	1	8303	57	119	6	0	8115	2	Caught by Peter Siddle
16	1001	5003	1	8302	18	36	3	0	8114	3	NULL
17	1001	5003	1	8305	5	10	1	0	8108	2	Caught by Cameron Bancroft
18	1001	5003	1	8304	50	96	8	0	8108	2	Caught by Tim Paine
19	1001	5003	1	8306	8	35	1	0	8115	2	Caught by David Warner
20	1001	5003	1	8312	0	5	0	0	8110	1	NULL
21	1001	5003	1	8308	37	95	1	1	NULL	6	NULL
22	1001	5003	1	8310	29	67	2	0	8108	2	Caught by James Pattinson
23	1001	5003	1	8313	3	19	0	0	8110	2	Caught by Pat Cummins
24	1001	5003	1	NULL	24	NULL	NULL	NULL	NULL	NULL	NULL

--Matchlist

```sql
SELECT m.id, start_date, end_date, v.name AS venue, t1.name, t2.name, u1.name,
u2.name, t3.name, p.name
FROM match m
JOIN venues v
ON m.venue_id = v.id
JOIN teams t1
ON m.teama = t1.id
JOIN teams t2
ON m.teamb = t2.id
JOIN umpires u1
ON m.umpirea_id = u1.id
JOIN umpires u2
ON m.umpireb_id = u2.id
JOIN teams t3
ON m.winner = t3.id
JOIN players p
ON m.potm = p.id
```

id	start_date	end_date	venue	team1	team2	umpire1	umpire2	winner	ptmm
1502	2019-11-29	2019-12-03	Adelaide Oval	Australia	Pakistan	Richard Illingworth	Michael Gough	Australia	David Warner
1501	2019-11-21	2019-11-25	The Gabba	Australia	Pakistan	Richard Illingworth	Richard Kettleborough	Australia	Marnus Labuschagne
1703	2020-01-02	2020-01-05	Sydney Cricket Ground	Australia	New Zealand	Aleem Dar	Marais Erasmus	Australia	Marnus Labuschagne
1001	2019-08-01	2019-08-05	Edgbaston	England	Australia	Aleem Dar	Joel Wilson	Australia	Steve Smith
1004	2019-09-04	2019-09-08	Old Trafford	England	Australia	Kumar Dharmasena	Marais Erasmus	Australia	Steve Smith
1702	2019-12-25	2019-12-28	Melbourne Cricket Ground	Australia	New Zealand	Nigel Llong	Marais Erasmus	Australia	Travis Head
2401	2020-12-17	2020-12-21	Adelaide Oval	Australia	India	Bruce Oxenford	Paul Reiffel	Australia	Tim Paine
1701	2019-12-12	2019-12-16	Optus Stadium	Australia	New Zealand	Aleem Dar	Nigel Llong	Australia	Mitchell Starc
2701	2021-01-14	2021-01-18	Gaile International Stadium	Sri Lanka	England	Kumar Dharmasena	Ruchira Palliyaguruge	England	Joe Root
2702	2021-01-23	2021-01-27	Gaile International Stadium	Sri Lanka	England	Kumar Dharmasena	Ruchira Palliyaguruge	England	Joe Root
1003	2019-08-22	2019-08-26	Headingley	England	Australia	Joel Wilson	Chris Gaffaney	England	Ben Stokes
1802	2020-01-03	2020-01-07	Newlands Cricket Ground	South Africa	England	Kumar Dharmasena	Paul Reiffel	England	Ben Stokes
2102	2020-07-16	2020-07-20	Old Trafford	England	West Indies	Michael Gough	Richard Illingworth	England	Ben Stokes
2201	2020-08-05	2020-08-09	Old Trafford	England	Pakistan	Richard Illingworth	Richard Kettleborough	England	Chris Woakes
1005	2019-09-12	2019-09-16	The Oval	England	Australia	Kumar Dharmasena	Marais Erasmus	England	Jofra Archer
2103	2020-07-24	2020-07-28	Old Trafford	England	West Indies	Michael Gough	Richard Kettleborough	England	Stuart Broad
1804	2020-01-24	2020-01-28	Wanderers Stadium	South Africa	England	Rod Tucker	Joel Wilson	England	Mark Wood
1803	2020-01-16	2020-01-20	St George's Park	South Africa	England	Bruce Oxenford	Rod Tucker	England	Ollie Pope
1401	2019-11-14	2019-11-18	Holkar Stadium	India	Bangladesh	Marais Erasmus	Rod Tucker	India	Mayank Agarwal
1302	2019-10-10	2019-10-13	MCA Stadium	India	South Africa	Chris Gaffaney	Nigel Llong	India	Virat Kohli
1201	2019-08-22	2019-08-26	Sir Vivian Richards Stadium	West Indies	India	Rod Tucker	Richard Kettleborough	India	Ajinkya Rahane
2402	2020-12-26	2020-12-30	Melbourne Cricket Ground	Australia	India	Bruce Oxenford	Paul Reiffel	India	Ajinkya Rahane
1202	2019-08-30	2019-09-03	Sabina Park	West Indies	India	Paul Reiffel	Richard Kettleborough	India	Hanuma Vihari
2404	2021-01-15	2021-01-19	The Gabba	Australia	India	Bruce Oxenford	Paul Wilson	India	Rishabh Pant

--Player of the match during the Test Championships

SELECT p.name, COUNT(*) AS potm
FROM match m
JOIN players p
ON m.potm = p.id
GROUP BY p.name
ORDER BY potm DESC

	name	potm
	Ben Stokes	4
	Joe Root	3
	Kyle Jamieson	3
	Steve Smith	3
	Rohit Sharma	2
	Abid Ali	2
	Ajinkya Rahane	2
	Marnus Labuschagne	2
	Kane Williamson	2
0	Mayank Agarwal	1
1	Mitchell Starc	1
2	Mohammad Rizwan	1
3	Naseem Shah	1
4	Ollie Pope	1
5	Quinton de Kock	1
6	Rahkeem Cornwall	1
7	Ravichandran Ashwin	1
8	Rishabh Pant	1
9	Chris Woakes	1
0	David Warner	1
1	Dean Elgar	1
2	Dimuth Karunaratne	1
3	Faf du Plessis	1
4	Fawad Alam	1

--Scorecards

```
SELECT match_id, t.name, p1.name, runs, balls, fours, sixes, p2.name, w.dismissal, notes
FROM testruns AS m
LEFT JOIN teams AS t
ON m.team_id = t.id
LEFT JOIN players AS p1
ON m.player_id = p1.id
LEFT JOIN players AS p2
ON m.bowler_id = p2.id
LEFT JOIN wickets AS w
ON m.wicket_id = w.id
```

match_id	name	name	runs	balls	fours	sixes	name	dismissal	notes
1001	Australia	Cameron Bancroft	8	25	2	0	Stuart Broad	Caught	Caught by Joe Root
1001	Australia	David Warner	2	14	0	0	Stuart Broad	LBW	NULL
1001	Australia	Usman Khawaja	13	23	2	0	Chris Woakes	Caught	Caught by Jonny Bairstow
1001	Australia	Steve Smith	144	219	16	2	Stuart Broad	Bowled	NULL
1001	Australia	Travis Head	35	61	5	0	Chris Woakes	LBW	NULL
1001	Australia	Matthew Wade	1	5	0	0	Chris Woakes	LBW	NULL
1001	Australia	Tim Paine	5	14	0	0	Stuart Broad	Caught	Caught by Rory Burns
1001	Australia	James Pattinson	0	2	0	0	Stuart Broad	LBW	NULL
1001	Australia	Pat Cummins	5	10	1	0	Ben Stokes	LBW	NULL
1001	Australia	Peter Siddle	44	85	4	0	Moeen Ali	Caught	Caught by Jos Buttler
1001	Australia	Nathan Lyon	12	26	3	0	NULL	Not out	NULL
1001	Australia	NULL	15	NULL	NULL	NULL	NULL	NULL	NULL
1001	England	Rory Burns	133	312	17	0	Nathan Lyon	Caught	Caught by Tim Paine
1001	England	Jason Roy	10	22	2	0	James Pattinson	Caught	Caught by Steve Smith
1001	England	Joe Root	57	119	6	0	Peter Siddle	Caught	Caught by Peter Siddle
1001	England	Joe Denly	18	36	3	0	James Pattinson	LBW	NULL
1001	England	Jos Buttler	5	10	1	0	Pat Cummins	Caught	Caught by Cameron Bancroft
1001	England	Ben Stokes	50	96	8	0	Pat Cummins	Caught	Caught by Tim Paine
1001	England	Jonny Bairstow	8	35	1	0	Peter Siddle	Caught	Caught by David Warner
1001	England	Moeen Ali	0	5	0	0	Nathan Lyon	Bowled	NULL
1001	England	Chris Woakes	37	95	1	1	NULL	Not out	NULL
1001	England	Stuart Broad	29	67	2	0	Pat Cummins	Caught	Caught by James Pattinson
1001	England	James Anderson	3	19	0	0	Nathan Lyon	Caught	Caught by Pat Cummins
1001	England	NULL	24	NULL	NULL	NULL	NULL	NULL	NULL

--Most Wickets
SELECT p.name, COUNT(*) AS tournament_wickets
FROM testruns m
JOIN players p
ON m.bowler_id = p.id
GROUP BY p.name
ORDER BY tournament_wickets DESC

Results Messages

	name	tournament_wickets
1	Pat Cummins	70
2	Stuart Broad	69
3	Nathan Lyon	56
4	Ravichandran Ashwin	52
5	Tim Southee	51
6	Josh Hazlewood	48
7	Mitchell Starc	44
8	Jofra Archer	39
9	Anrich Nortje	39
10	James Anderson	36
11	Kyle Jamieson	36
12	Mohammed Shami	36
13	Shaheen Afridi	36
14	Ishant Sharma	35
15	Jack Leach	34
16	Jasprit Bumrah	34
17	Trent Boult	34
18	Dom Bess	33
19	Neil Wagner	32
20	Yasir Shah	32
21	Ben Stokes	30
22	Chris Woakes	30
23	Umesh Yadav	29
24	Ravindra Jadeja	28

--Most Runs
SELECT p.name, SUM(runs) AS tournament_runs
FROM testruns m
JOIN players p
ON m.player_id = p.id
WHERE runs IS NOT NULL
GROUP BY p.name
ORDER BY tournament_runs DESC

name	tournament_runs
Marnus Labuschagne	1675
Joe Root	1589
Steve Smith	1341
Ben Stokes	1246
Ajinkya Rahane	1061
Jos Buttler	963
David Warner	948
Babar Azam	932
Rohit Sharma	890
Mayank Agarwal	857
Virat Kohli	850
Dean Elgar	848
Dom Sibley	832
Kane Williamson	817
Cheteshwar Pujara	801
Rory Burns	795
Azhar Ali	748
Mohammad Rizwan	741
Matthew Wade	727
Tom Latham	680
Zak Crawley	615
Quinton de Kock	610
Shan Masood	585
Henry Nicholls	585

--Most Fours
SELECT p.name, SUM(fours) AS tournament_runs
FROM testruns m
JOIN players p
ON m.player_id = p.id
WHERE runs IS NOT NULL
GROUP BY p.name
ORDER BY tournament_runs DESC

1	Marnus Labuschagne	186
2	Joe Root	162
3	Steve Smith	151
4	Ben Stokes	132
5	Dean Elgar	128
6	Ajinkya Rahane	120
7	Babar Azam	114
8	Jos Buttler	108
9	Virat Kohli	105
10	Mayank Agarwal	104
11	Rohit Sharma	102
12	Kane Williamson	100
13	Cheteshwar Pujara	97
14	Dom Sibley	95
15	Rory Burns	95
16	David Warner	94
17	Azhar Ali	89
18	Matthew Wade	89
19	Mohammad Rizwan	89
20	Quinton de Kock	87
21	Joe Denly	79
22	Zak Crawley	79
23	Faf du Plessis	78

--Most Sixes
SELECT p.name, SUM(sixes) AS tournament_runs
FROM testruns m
JOIN players p
ON m.player_id = p.id
WHERE runs IS NOT NULL
GROUP BY p.name
ORDER BY tournament_runs DESC, p.name

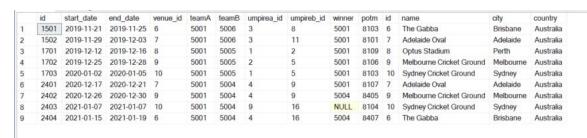|	name	tournament_runs
	Ben Stokes	29
	Rohit Sharma	26
	Mayank Agarwal	18
	Jos Buttler	14
	Rishabh Pant	14
	Alzarri Joseph	11
	Ravindra Jadeja	10
	Stuart Broad	10
	Kyle Jamieson	9
0	Mark Wood	8
1	Umesh Yadav	8
2	Colin de Grandhomme	7
3	Kyle Mayers	7
4	Steve Smith	7
5	Ajinkya Rahane	6
6	Mitchell Starc	6
7	Neil Wagner	6
8	Quinton de Kock	6
9	Shan Masood	6
0	Dasun Shanaka	5
1	Jermaine Blackwood	5
2	Joe Root	5
3	Kemar Roach	5
4	Keshav Maharaj	5

WHERE FUNCTIONS

--Number of runs scored in 1st innings of 1st test of the Ashes 2019
SELECT match_id, team_id, innings, SUM(runs)
FROM testruns
WHERE match_id = 1001
AND innings = 1
GROUP BY match_id, team_id, innings
ORDER BY match_id

Results | Messages

	match_id	team_id	innings	(No column name)
1	1001	5001	1	284
2	1001	5003	1	374

--Matches that took place in Australia
SELECT * FROM match
JOIN venues
ON match.venue_id = venues.id
WHERE country = 'Australia'

	id	start_date	end_date	venue_id	teamA	teamB	umpirea_id	umpireb_id	winner	potm	id	name	city	country
1	1501	2019-11-21	2019-11-25	6	5001	5006	3	8	5001	8103	6	The Gabba	Brisbane	Australia
2	1502	2019-11-29	2019-12-03	7	5001	5006	3	11	5001	8101	7	Adelaide Oval	Adelaide	Australia
3	1701	2019-12-12	2019-12-16	8	5001	5005	1	2	5001	8109	8	Optus Stadium	Perth	Australia
4	1702	2019-12-25	2019-12-28	9	5001	5005	2	5	5001	8106	9	Melbourne Cricket Ground	Melbourne	Australia
5	1703	2020-01-02	2020-01-05	10	5001	5005	1	5	5001	8103	10	Sydney Cricket Ground	Sydney	Australia
6	2401	2020-12-17	2020-12-21	7	5001	5004	4	9	5001	8107	7	Adelaide Oval	Adelaide	Australia
7	2402	2020-12-26	2020-12-30	9	5001	5004	4	9	5004	8405	9	Melbourne Cricket Ground	Melbourne	Australia
8	2403	2021-01-07	2021-01-07	10	5001	5004	9	16	NULL	8104	10	Sydney Cricket Ground	Sydney	Australia
9	2404	2021-01-15	2021-01-19	6	5001	5004	4	16	5004	8407	6	The Gabba	Brisbane	Australia

--Which players were out via LBW
SELECT * FROM testruns
JOIN wickets
ON testruns.wicket_id = wickets.id
WHERE dismissal = 'LBW'

	match_id	team_id	innings	player_id	runs	balls	fours	sixes	bowler_id	wicket_id	notes	id	dismissal
1	1001	5001	1	8101	2	14	0	0	8310	3	NULL	3	LBW
2	1001	5001	1	8106	35	61	5	0	8308	3	NULL	3	LBW
3	1001	5001	1	8105	1	5	0	0	8308	3	NULL	3	LBW
4	1001	5001	1	8114	0	2	0	0	8310	3	NULL	3	LBW
5	1001	5001	1	8108	5	10	1	0	8304	3	NULL	3	LBW
6	1001	5003	1	8302	18	36	3	0	8114	3	NULL	3	LBW
7	1002	5003	1	8303	14	20	3	0	8111	3	NULL	3	LBW
8	1002	5003	1	8304	13	22	3	0	8110	3	NULL	3	LBW
9	1002	5001	1	8112	13	66	1	0	8309	3	NULL	3	LBW
10	1002	5001	1	8104	92	161	14	0	8308	3	NULL	3	LBW
11	1002	5001	1	8106	7	21	1	0	8310	3	NULL	3	LBW
12	1002	5001	1	8110	6	17	0	0	8314	3	NULL	3	LBW
13	1002	5001	2	8112	16	40	2	0	8314	3	NULL	3	LBW
14	1003	5001	1	8103	74	129	10	0	8304	3	NULL	3	LBW
15	1003	5001	1	8107	11	26	1	0	8308	3	NULL	3	LBW
16	1003	5001	1	8110	1	4	0	0	8309	3	NULL	3	LBW
17	1003	5001	2	8101	0	2	0	0	8310	3	NULL	3	LBW
18	1003	5003	2	8310	0	2	0	0	8114	3	NULL	3	LBW
19	1004	5001	1	8102	13	24	1	0	8310	3	NULL	3	LBW
20	1004	5001	1	8106	19	22	3	0	8310	3	NULL	3	LBW
21	1004	5003	1	8303	71	168	10	0	8111	3	NULL	3	LBW
22	1004	5001	2	8101	0	6	0	0	8310	3	NULL	3	LBW
23	1004	5001	2	8102	6	16	1	0	8310	3	NULL	3	LBW
24	1004	5001	2	8103	11	25	2	0	8309	3	NULL	3	LBW

--Number of catches made by Ben Stokes
SELECT * FROM testruns
WHERE notes LIKE '%Ben Stokes%'

	match_id	team_id	innings	player_id	runs	balls	fours	sixes	bowler_id	wicket_id	notes
1	1004	5001	1	8108	4	9	1	0	8314	2	Caught by Ben Stokes
2	1004	5001	2	8104	82	92	11	0	8314	2	Caught by Ben Stokes
3	1005	5001	1	8102	3	15	0	0	8309	2	Caught by Ben Stokes
4	1005	5001	2	8104	23	53	4	0	8310	2	Caught by Ben Stokes
5	1801	5007	1	8703	39	72	6	0	8310	2	Caught by Ben Stokes
6	1801	5007	1	8709	6	15	1	0	8309	2	Caught by Ben Stokes
7	1802	5007	1	8703	5	12	1	0	8310	2	Caught by Ben Stokes
8	1802	5007	1	8704	1	14	0	0	8313	2	Caught by Ben Stokes
9	1802	5007	1	8705	68	187	7	0	8307	2	Caught by Ben Stokes
10	1802	5007	1	8707	4	8	1	0	8313	2	Caught by Ben Stokes
11	1802	5007	1	8711	4	16	1	0	8313	2	Caught by Ben Stokes
12	1802	5007	2	8712	84	288	3	0	8307	2	Caught by Ben Stokes
13	1804	5007	1	8705	0	7	0	0	8307	2	Caught by Ben Stokes
14	1804	5007	1	8714	6	28	0	0	8311	2	Caught by Ben Stokes
15	1804	5007	2	8712	22	51	3	0	8308	2	Caught by Ben Stokes
16	1804	5007	2	8701	24	73	4	0	8304	2	Caught by Ben Stokes
17	2101	5009	1	8906	16	64	1	0	8320	2	Caught by Ben Stokes
18	2102	5009	1	8901	75	165	8	0	8304	2	Caught by Ben Stokes
19	2201	5006	1	8604	7	22	1	0	8310	2	Caught by Ben Stokes
20	2201	5006	2	8605	5	20	0	0	8308	2	Caught by Ben Stokes
21	3001	5004	1	8416	0	12	0	0	8314	2	Caught by Ben Stokes
22	3001	5004	1	8411	0	2	0	0	8313	2	Caught by Ben Stokes
23	3001	5004	2	8403	15	38	1	0	8314	2	Caught by Ben Stokes
24	3002	5004	1	8403	21	58	2	0	8314	2	Caught by Ben Stokes

AGGREGATE FUNCTIONS

COUNT
-- Top 50 players with the most wickets
SELECT p.name, COUNT(*) AS wickets
FROM testruns
JOIN players AS p
ON testruns.bowler_id = p.id
GROUP BY p.name
ORDER BY wickets DESC
LIMIT 50

	name	wickets
1	Pat Cummins	70
2	Stuart Broad	69
3	Nathan Lyon	56
4	Ravichandran Ashwin	52
5	Tim Southee	51
6	Josh Hazlewood	48
7	Mitchell Starc	44
8	Jofra Archer	39
9	Anrich Nortje	39
10	James Anderson	36
11	Kyle Jamieson	36
12	Mohammed Shami	36
13	Shaheen Afridi	36
14	Ishant Sharma	35
15	Jack Leach	34
16	Jasprit Bumrah	34
17	Trent Boult	34
18	Dom Bess	33
19	Neil Wagner	32
20	Yasir Shah	32
21	Ben Stokes	30
22	Chris Woakes	30
23	Umesh Yadav	29
24	Ravindra Jadeja	28

-- Matches that were umpired by Marais Erasmus
SELECT * FROM match
JOIN umpires AS u1
ON match.umpirea_id = u1.id
JOIN umpires AS u2
ON match.umpireb_id = u2.id
WHERE u1.name = 'Marais Erasmus'
OR u2.name = 'Marais Erasmus'

Results | Messages

id	start_date	end_date	venue_id	teamA	teamB	umpirea_id	umpireb_id	winner	potm	id	name	country	id	name	country
1004	2019-09-04	2019-09-08	4	5003	5001	7	5	5001	8104	7	Kumar Dharmasena	Sri Lanka	5	Marais Erasmus	South Africa
1005	2019-09-12	2019-09-16	5	5003	5001	7	5	5003	8309	7	Kumar Dharmasena	Sri Lanka	5	Marais Erasmus	South Africa
1401	2019-11-14	2019-11-18	14	5004	5002	5	6	5004	8401	5	Marais Erasmus	South Africa	6	Rod Tucker	Australia
1402	2019-11-22	2019-11-26	15	5004	5002	5	12	5004	8409	5	Marais Erasmus	South Africa	12	Joel Wilson	West Indies
1702	2019-12-25	2019-12-28	9	5001	5005	2	5	5001	8106	2	Nigel Llong	England	5	Marais Erasmus	South Africa
1703	2020-01-02	2020-01-05	10	5001	5005	1	5	5001	8103	1	Aleem Dar	Pakistan	5	Marais Erasmus	South Africa
2601	2020-12-26	2020-12-30	18	5007	5008	5	15	5007	8704	5	Marais Erasmus	South Africa	15	Adrian Holdstock	South Africa
2602	2021-01-03	2021-01-07	21	5007	5008	5	15	5007	8701	5	Marais Erasmus	South Africa	15	Adrian Holdstock	South Africa

--Wickets made by All rounders
SELECT p.name, COUNT(*) AS wickets
FROM testruns t
JOIN players p
ON t.bowler_id = p.id
JOIN roles r
ON p.role_id = r.id
WHERE role = 'All-rounder'
GROUP BY p.name
ORDER BY wickets DESC

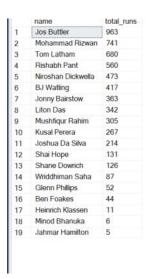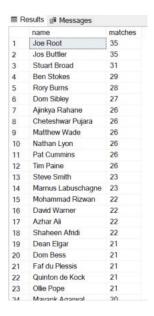|	name	wickets
1	Ravichandran Ashwin	52
2	Ben Stokes	30
3	Ravindra Jadeja	28
4	Sam Curran	20
5	Rahkeem Cornwall	17
6	Moeen Ali	11
7	Colin de Grandhomme	11
8	Wiaan Mulder	10
9	Dilruwan Perera	8
10	Nauman Ali	8
11	Mitchell Marsh	7
12	Akila Dananjaya	6
13	Dasun Shanaka	4
14	Faheem Ashraf	4
15	Wanindu Hasaranga	4
16	Todd Astle	3
17	Fawad Alam	2
18	Craig Overton	2
19	Chemar Holder	2
20	Ramesh Mendis	2
21	Senuran Muthusamy	2
22	Shadab Khan	2
23	Soumya Sarkar	1
		1

--All rounders with the most runs
SELECT p.name, SUM(runs) AS total_runs
FROM testruns t
JOIN players p
ON t.player_id = p.id
JOIN roles r
ON p.role_id = r.id
WHERE role = 'All-rounder'
GROUP BY p.name
ORDER BY total_runs DESC

	name	total_runs
1	Ben Stokes	1246
2	Ravindra Jadeja	469
3	Hanuma Vihari	457
4	Angelo Mathews	363
5	Faheem Ashraf	357
6	Fawad Alam	320
7	Colin de Grandhomme	300
8	Ravichandran Ashwin	265
9	Kyle Mayers	261
10	Nkrumah Bonner	251
11	Cameron Green	236
12	Sam Curran	192
13	Dilruwan Perera	177
14	Daryl Mitchell	153
15	Wanindu Hasaranga	153
16	Dasun Shanaka	111
17	Shadman Islam	105
18	Senuran Muthusamy	98
19	Wiaan Mulder	96
20	Mahmudullah	95
21	Nauman Ali	77
22	Shadab Khan	60
23	Moeen Ali	53
24	Todd Astle	42

-- Wicketkeepers with the most runs
SELECT p.name, SUM(runs) AS total_runs
FROM testruns t
JOIN players p
ON t.player_id = p.id
JOIN roles r
ON p.role_id = r.id
WHERE role = 'Wicket-keeper'
GROUP BY p.name
ORDER BY total_runs DESC

	name	total_runs
1	Jos Buttler	963
2	Mohammad Rizwan	741
3	Tom Latham	680
4	Rishabh Pant	560
5	Niroshan Dickwella	473
6	BJ Watling	417
7	Jonny Bairstow	363
8	Liton Das	342
9	Mushfiqur Rahim	305
10	Kusal Perera	267
11	Joshua Da Silva	214
12	Shai Hope	131
13	Shane Dowrich	126
14	Wriddhiman Saha	87
15	Glenn Phillips	52
16	Ben Foakes	44
17	Heinrich Klassen	11
18	Minod Bhanuka	6
19	Jahmar Hamilton	5

-- 50 players who have played the most test matches during the tournament
SELECT p.name, COUNT(*) AS matches
FROM testruns
JOIN players AS p
ON testruns.player_id = p.id
GROUP BY p.name
ORDER BY matches DESC
LIMIT 50

Results Messages

	name	matches
1	Joe Root	35
2	Jos Buttler	35
3	Stuart Broad	31
4	Ben Stokes	29
5	Rory Burns	28
6	Dom Sibley	27
7	Ajinkya Rahane	26
8	Cheteshwar Pujara	26
9	Matthew Wade	26
10	Nathan Lyon	26
11	Pat Cummins	26
12	Tim Paine	26
13	Steve Smith	23
14	Marnus Labuschagne	23
15	Mohammad Rizwan	22
16	David Warner	22
17	Azhar Ali	22
18	Shaheen Afridi	22
19	Dean Elgar	21
20	Dom Bess	21
21	Faf du Plessis	21
22	Quinton de Kock	21
23	Ollie Pope	21
24	Mayank Agarwal	20

--Number of ducks made in a test match
SELECT p.name, runs, COUNT(*) AS ducks
FROM testruns
JOIN players AS p
ON testruns.player_id = p.id
WHERE runs= 0
AND wicket_id != 6
GROUP BY p.name, runs
ORDER BY COUNT(*) DESC

	name	runs	ducks
1	Anrich Nortje	0	5
2	Kusal Mendis	0	5
3	Pat Cummins	0	5
4	Shaheen Afridi	0	5
5	Shan Masood	0	5
6	Shane Dowrich	0	4
7	Shannon Gabriel	0	4
8	Rory Burns	0	4
9	Kemar Roach	0	4
10	Keshav Maharaj	0	4
11	Jasprit Bumrah	0	4
12	Lasith Embuldeniya	0	4
13	Kagiso Rabada	0	4
14	Mohammed Shami	0	3
15	Joe Root	0	3
16	Azhar Ali	0	3
17	Dom Bess	0	3
18	Dom Sibley	0	3
19	David Warner	0	3
20	Roston Chase	0	3
21	Stuart Broad	0	3
22	Virat Kohli	0	3
23	Vishwa Fernando	0	3
24	Joe Burns	0	2

SUM
-- Top 50 players with the most runs
SELECT p.name, SUM(runs) AS total_runs
FROM testruns
JOIN players AS p
ON testruns.player_id = p.id
WHERE runs IS NOT NULL
GROUP BY p.name
ORDER BY total_runs DESC
LIMIT 50

name	total_runs
Marnus Labuschagne	1675
Joe Root	1589
Steve Smith	1341
Ben Stokes	1246
Ajinkya Rahane	1061
Jos Buttler	963
David Warner	948
Babar Azam	932
Rohit Sharma	890
Mayank Agarwal	857
Virat Kohli	850
Dean Elgar	848
Dom Sibley	832
Kane Williamson	817
Cheteshwar Pujara	801
Rory Burns	795
Azhar Ali	748
Mohammad Rizwan	741
Matthew Wade	727
Tom Latham	680
Zak Crawley	615
Quinton de Kock	610
Shan Masood	585
Henry Nicholls	585

--Number of balls faced in descending order
SELECT p.name, SUM(balls) AS total_balls
FROM testruns
JOIN players AS p
ON testruns.player_id = p.id
WHERE runs IS NOT NULL
GROUP BY p.name
ORDER BY total_balls DESC
LIMIT 50

name	total_balls
Marnus Labuschagne	2999
Joe Root	2874
Steve Smith	2509
Dom Sibley	2276
Ajinkya Rahane	2247
Cheteshwar Pujara	2152
Ben Stokes	2120
Jos Buttler	1821
Rory Burns	1754
Azhar Ali	1687
Mayank Agarwal	1556
David Warner	1519
Virat Kohli	1497
Joe Denly	1462
Tom Latham	1456
Dean Elgar	1454
Babar Azam	1453
Kane Williamson	1432
Mohammad Rizwan	1418
Matthew Wade	1354
Rohit Sharma	1332
Abid Ali	1275
Shan Masood	1234

--Most Boundaries by a player in the tournament
SELECT p.name, SUM(fours + sixes) AS total_boundaries
FROM testruns
JOIN players AS p
ON testruns.player_id = p.id
WHERE runs IS NOT NULL
GROUP BY p.name
ORDER BY total_boundaries DESC
LIMIT 50

	name	total_boundaries
	Marnus Labuschagne	189
	Joe Root	167
	Ben Stokes	161
	Steve Smith	158
	Dean Elgar	132
	Rohit Sharma	128
	Ajinkya Rahane	126
	Jos Buttler	122
	Mayank Agarwal	122
0	Babar Azam	117
1	Virat Kohli	108
2	Kane Williamson	103
3	Cheteshwar Pujara	100
4	Dom Sibley	96
5	David Warner	95
6	Rory Burns	95
7	Matthew Wade	93
8	Quinton de Kock	93
9	Mohammad Rizwan	90
0	Azhar Ali	89
1	Faf du Plessis	82
2	Joe Denly	82
3	Zak Crawley	80
4	Rishabh Pant	76

MAX
-- Most runs scored in an innings in the tournament
SELECT p.name, MAX(runs) AS maxruns
FROM testruns AS t
JOIN players AS p
ON t.player_id = p.id
WHERE runs IS NOT NULL
GROUP BY t.match_id, p.name
ORDER BY maxruns DESC

	name	maxruns
1	David Warner	335
2	Zak Crawley	267
3	Virat Kohli	254
4	Kane Williamson	251
5	Mayank Agarwal	243
6	Kane Williamson	238
7	Joe Root	228
8	Joe Root	218
9	Mayank Agarwal	215
10	Marnus Labuschagne	215
11	Rohit Sharma	212
12	Steve Smith	211
13	Kyle Mayers	210
14	Faf du Plessis	199
15	Joe Root	186
16	Marnus Labuschagne	185
17	Rohit Sharma	176
18	Ben Stokes	176
19	Abid Ali	174
20	Henry Nicholls	174
21	Marnus Labuschagne	162
22	Rohit Sharma	161
23	Dean Elgar	160
24	Henry Nicholls	157

JOIN
--Best bowling figures in an innings
SELECT p.name, COUNT(*) AS wickets
FROM testruns
JOIN players AS p
ON testruns.bowler_id = p.id
GROUP BY match_id, p.name
ORDER BY wickets DESC

Results Messages

	name	wickets
	Kyle Jamieson	11
	Lasith Embuldeniya	10
	Nathan Lyon	10
	Hasan Ali	10
	Stuart Broad	10
	Tim Southee	9
	Tim Southee	9
	Shannon Gabriel	9
	Rahkeem Cornwall	9
)	Ravichandran Ashwin	9
1	Ishant Sharma	9
2	Nathan Lyon	9
3	Mark Wood	9
4	Mitchell Starc	9
5	Josh Hazlewood	9
5	Jofra Archer	8
7	Mehidy Hasan	8
3	Moeen Ali	8
3	Ishant Sharma	8
)	Dom Bess	8
1	Anrich Nortje	8
2	Ravichandran Ashwin	8
3	Ravichandran Ashwin	8
4	Taijul Islam	8

CASE STATEMENT

-- Outcomes with each player batting (CASE STATEMENT)
SELECT match_id, team_id, innings, player_id, runs, balls,
CASE WHEN runs= 0 THEN 'Duck!'
WHEN runs BETWEEN 50 AND 100 THEN 'Half Century'
WHEN runs BETWEEN 100 AND 200 THEN 'Century'
WHEN runs>= 200 THEN 'Double Century'
WHEN runs IS NULL THEN 'Did not bat'
ELSE 'Howzat!' END AS outcome
FROM testruns

	match_id	team_id	innings	player_id	runs	balls	outcome
1	1001	5001	1	8112	8	25	Howzat!
2	1001	5001	1	8101	2	14	Howzat!
3	1001	5001	1	8113	13	23	Howzat!
4	1001	5001	1	8104	144	219	Century
5	1001	5001	1	8106	35	61	Howzat!
6	1001	5001	1	8105	1	5	Howzat!
7	1001	5001	1	8107	5	14	Howzat!
8	1001	5001	1	8114	0	2	Duck!
9	1001	5001	1	8108	5	10	Howzat!
10	1001	5001	1	8115	44	85	Howzat!
11	1001	5001	1	8110	12	26	Howzat!
12	1001	5001	1	NULL	15	NULL	Howzat!
13	1001	5003	1	8301	133	312	Century
14	1001	5003	1	8315	10	22	Howzat!
15	1001	5003	1	8303	57	119	Half Century
16	1001	5003	1	8302	18	36	Howzat!
17	1001	5003	1	8305	5	10	Howzat!
18	1001	5003	1	8304	50	96	Half Century
19	1001	5003	1	8306	8	35	Howzat!
20	1001	5003	1	8312	0	5	Duck!
21	1001	5003	1	8308	37	95	Howzat!
22	1001	5003	1	8310	29	67	Howzat!
23	1001	5003	1	8313	3	19	Howzat!
24	1001	5003	1	NULL	24	NULL	Howzat!

✅ Query executed successfully.

--Total number of runs made in the tournament so far
SELECT
CASE WHEN team_id = 5003 THEN 'England'
WHEN team_id = 5001 THEN 'Australia'
WHEN team_id = 5006 THEN 'Pakistan'
WHEN team_id = 5007 THEN 'South Africa'
WHEN team_id = 5004 THEN 'India'
WHEN team_id = 5005 THEN 'New Zealand'
WHEN team_id = 5002 THEN 'Bangladesh'
WHEN team_id = 5008 THEN 'Sri Lanka'

ELSE 'West Indies'
END AS team,
SUM(runs) AS total_runs
FROM testruns
GROUP BY team_id
ORDER BY total_runs DESC

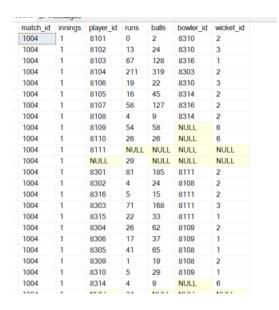|	team	total_runs
1	England	9922
2	Australia	7781
3	India	7740
4	Pakistan	5781
5	South Africa	5241
6	New Zealand	5020
7	West Indies	3991
8	Sri Lanka	3642
9	Bangladesh	2227

SUBQUERIES
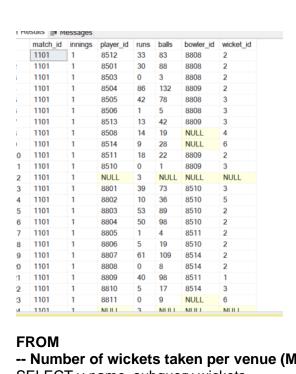**--Semi Scorecard for matches taken place at Old Trafford (Semi Join)**
SELECT t.match_id, innings, player_id , runs, balls, bowler_id, wicket_id
FROM testruns AS t
WHERE match_id IN (SELECT id FROM match
WHERE venue_id = 4)
ORDER BY t.match_id

match_id	innings	player_id	runs	balls	bowler_id	wicket_id
1004	1	8101	0	2	8310	2
1004	1	8102	13	24	8310	3
1004	1	8103	67	128	8316	1
1004	1	8104	211	319	8303	2
1004	1	8106	19	22	8310	3
1004	1	8105	16	45	8314	2
1004	1	8107	58	127	8316	2
1004	1	8108	4	9	8314	2
1004	1	8109	54	58	NULL	6
1004	1	8110	26	26	NULL	6
1004	1	8111	NULL	NULL	NULL	NULL
1004	1	NULL	29	NULL	NULL	NULL
1004	1	8301	81	185	8111	2
1004	1	8302	4	24	8108	2
1004	1	8316	5	15	8111	2
1004	1	8303	71	168	8111	3
1004	1	8315	22	33	8111	1
1004	1	8304	26	62	8109	2
1004	1	8306	17	37	8109	1
1004	1	8305	41	65	8108	1
1004	1	8309	1	19	8108	2
1004	1	8310	5	29	8109	1
1004	1	8314	4	9	NULL	6
1004	1	NULL	24	NULL	NULL	NULL

--Semi Scorecard for matches taken place with Richard Illingworth as the Umpire (Semi Join)
SELECT t.match_id, innings, player_id , runs, balls, bowler_id, wicket_id
FROM testruns AS t
WHERE match_id IN (SELECT id FROM match
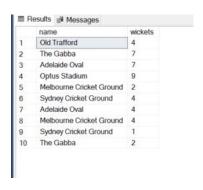WHERE umpirea_id = 3 OR umpireb_id = 3)
ORDER BY t.match_id

match_id	innings	player_id	runs	balls	bowler_id	wicket_id
1101	1	8512	33	83	8808	2
1101	1	8501	30	88	8808	2
1101	1	8503	0	3	8808	2
1101	1	8504	86	132	8809	2
1101	1	8505	42	78	8808	3
1101	1	8506	1	5	8808	3
1101	1	8513	13	42	8809	3
1101	1	8508	14	19	NULL	4
1101	1	8514	9	28	NULL	6
1101	1	8511	18	22	8809	2
1101	1	8510	0	1	8809	3
1101	1	NULL	3	NULL	NULL	NULL
1101	1	8801	39	73	8510	3
1101	1	8802	10	36	8510	5
1101	1	8803	53	89	8510	2
1101	1	8804	50	98	8510	2
1101	1	8805	1	4	8511	2
1101	1	8806	5	19	8510	2
1101	1	8807	61	109	8514	2
1101	1	8808	0	8	8514	2
1101	1	8809	40	98	8511	1
1101	1	8810	5	17	8514	3
1101	1	8811	0	9	NULL	6
1101	1	NULL	3	NULL	NULL	NULL

FROM
-- Number of wickets taken per venue (Mitchell Starc)
SELECT v.name, subquery.wickets
FROM match
JOIN venues AS v
ON match.venue_id = v.id,
(SELECT match_id, p.name AS bowler, COUNT(*) AS wickets
FROM testruns
JOIN players AS p
ON testruns.bowler_id = p.id
WHERE p.name = 'Mitchell Starc'
GROUP BY match_id, p.name) AS subquery
WHERE match.id = subquery.match_id

	name	wickets
1	Old Trafford	4
2	The Gabba	7
3	Adelaide Oval	7
4	Optus Stadium	9
5	Melbourne Cricket Ground	2
6	Sydney Cricket Ground	4
7	Adelaide Oval	4
8	Melbourne Cricket Ground	4
9	Sydney Cricket Ground	1
10	The Gabba	2

--Number of runs made per venue
SELECT v.name, subquery.total_runs
FROM match
JOIN venues AS v
ON match.venue_id = v.id,
(SELECT match_id, p.name AS batsman, SUM(runs) AS total_runs
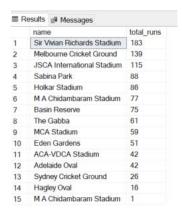FROM testruns
JOIN players AS p
ON testruns.player_id = p.id
WHERE p.name = 'Ajinkya Rahane'
GROUP BY match_id, p.name) AS subquery
WHERE match.id = subquery.match_id

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	name	total_runs
1	Sir Vivian Richards Stadium	183
2	Melbourne Cricket Ground	139
3	JSCA International Stadium	115
4	Sabina Park	88
5	Holkar Stadium	86
6	M A Chidambaram Stadium	77
7	Basin Reserve	75
8	The Gabba	61
9	MCA Stadium	59
10	Eden Gardens	51
11	ACA-VDCA Stadium	42
12	Adelaide Oval	42
13	Sydney Cricket Ground	26
14	Hagley Oval	16
15	M A Chidambaram Stadium	1

--Players who score more than 100 runs in the tournament
SELECT * FROM
(SELECT * FROM testruns WHERE runs > 100) a

	match_id	team_id	innings	player_id	runs	balls	fours	sixes	bowler_id	wicket_id	notes
1	1001	5001	1	8104	144	219	16	2	8310	1	NULL
2	1001	5003	1	8301	133	312	17	0	8110	2	Caught by Tim Paine
3	1001	5001	2	8104	142	207	14	0	8308	2	Caught by Jonny Bairstow
4	1001	5001	2	8105	110	143	17	0	8304	2	Caught by Joe Denly
5	1002	5003	2	8304	115	165	11	3	NULL	6	NULL
6	1003	5003	2	8304	135	219	11	8	NULL	6	NULL
7	1004	5001	1	8104	211	319	24	2	8303	2	Caught by Joe Denly
8	1005	5001	2	8105	117	166	17	1	8303	5	Stumps by Jonny Bairstow
9	1101	5008	2	8801	122	243	6	1	8508	2	Caught by BJ Watling
10	1102	5008	1	8806	109	148	16	2	8511	1	NULL
11	1102	5005	1	8501	154	251	15	0	8812	3	NULL
12	1102	5005	1	8506	105	226	9	0	NULL	6	NULL
13	1201	5004	2	8405	102	242	5	0	8911	2	Caught by Jason Holder
14	1202	5004	1	8406	111	225	16	0	8908	2	Caught by Kemar Roach
15	1301	5004	1	8401	215	371	23	6	8701	2	Caught by Dane Piedt
16	1301	5004	1	8412	176	244	23	6	8709	5	Stumps by Quinton de Kock
17	1301	5007	1	8701	160	287	18	4	8408	2	Caught by Cheteshwar Pujara
18	1301	5007	1	8706	111	163	16	2	8414	1	NULL
19	1301	5004	2	8412	127	149	10	7	8709	5	Stumps by Quinton de Kock
20	1302	5004	1	8401	108	195	16	2	8710	2	Caught by Faf du Plessis
21	1302	5004	1	8404	254	336	33	2	NULL	6	NULL
22	1303	5004	1	8412	212	255	28	6	8710	2	Caught by Lungi Ngidi
23	1303	5004	1	8405	115	192	17	1	8720	2	Caught by Heinrich Klaasen
24	1401	5004	1	8401	243	330	28	8	8208	2	Caught by Abu Jayed

Query executed successfully.

-- Show all scores where Pakistan won
SELECT * FROM testruns
WHERE match_id
IN (SELECT id FROM match WHERE winner = 5006)

	match_id	team_id	innings	player_id	runs	balls	fours	sixes	bowler_id	wicket_id	notes
1	1602	5006	1	8601	5	15	1	0	8815	1	NULL
2	1602	5006	1	8615	38	66	7	1	8811	3	NULL
3	1602	5006	1	8602	0	2	0	0	8815	1	NULL
4	1602	5006	1	8605	60	96	8	1	8810	5	Stumped by Niroshan Dickwella
5	1602	5006	1	8604	63	126	6	0	8811	2	Caught by Vishwa Fernando
6	1602	5006	1	8603	9	30	0	1	8810	3	NULL
7	1602	5006	1	8607	4	2	1	0	8811	1	NULL
8	1602	5006	1	8608	0	1	0	0	8811	3	NULL
9	1602	5006	1	8613	0	9	0	0	8810	2	Caught by Dhananjaya de Silva
10	1602	5006	1	8609	5	9	1	0	8810	2	Caught by Angelo Mathews
11	1602	5006	1	8610	1	1	0	0	NULL	6	NULL
12	1602	5006	1	NULL	6	NULL	NULL	NULL	NULL	NULL	NULL
13	1602	5008	1	8813	4	19	0	0	8609	2	Caught by Mohammad Rizwan
14	1602	5008	1	8801	25	42	4	0	8613	1	NULL
15	1602	5008	1	8803	13	27	1	0	8613	2	Caught by Haris Sohail
16	1602	5008	1	8804	13	44	1	0	8609	2	Caught by Mohammad Rizwan
17	1602	5008	1	8810	13	34	1	0	8613	2	Caught by Asad Shafiq
18	1602	5008	1	8814	74	143	10	0	8603	2	Caught by Shan Masood
19	1602	5008	1	8806	32	56	2	1	8609	2	Caught by Mohammad Abbas
20	1602	5008	1	8807	21	35	3	0	8613	1	NULL
21	1602	5008	1	8812	48	84	6	1	8609	3	NULL
22	1602	5008	1	8815	5	32	0	0	NULL	6	NULL
23	1602	5008	1	8811	0	2	0	0	8609	1	NULL
24	1602	5008	1	NULL	23	NULL	NULL	NULL	NULL	NULL	NULL

--Show all LBW dismissals
SELECT * FROM testruns
WHERE wicket_id
IN (SELECT id FROM wickets WHERE dismissal = 'LBW')

	match_id	team_id	innings	player_id	runs	balls	fours	sixes	bowler_id	wicket_id	notes
1	1001	5001	1	8101	2	14	0	0	8310	3	NULL
2	1001	5001	1	8106	35	61	5	0	8308	3	NULL
3	1001	5001	1	8105	1	5	0	0	8308	3	NULL
4	1001	5001	1	8114	0	2	0	0	8310	3	NULL
5	1001	5001	1	8108	5	10	1	0	8304	3	NULL
6	1001	5003	1	8302	18	36	3	0	8114	3	NULL
7	1002	5003	1	8303	14	20	3	0	8111	3	NULL
8	1002	5003	1	8304	13	22	3	0	8110	3	NULL
9	1002	5001	1	8112	13	66	1	0	8309	3	NULL
10	1002	5001	1	8104	92	161	14	0	8308	3	NULL
11	1002	5001	1	8106	7	21	1	0	8310	3	NULL
12	1002	5001	1	8110	6	17	0	0	8314	3	NULL
13	1002	5001	2	8112	16	40	2	0	8314	3	NULL
14	1003	5001	1	8103	74	129	10	0	8304	3	NULL
15	1003	5001	1	8107	11	26	1	0	8308	3	NULL
16	1003	5001	1	8110	1	4	0	0	8309	3	NULL
17	1003	5001	2	8101	0	2	0	0	8310	3	NULL
18	1003	5003	2	8310	0	2	0	0	8114	3	NULL
19	1004	5001	1	8102	13	24	1	0	8310	3	NULL
20	1004	5001	1	8106	19	22	3	0	8310	3	NULL
21	1004	5003	1	8303	71	168	10	0	8111	3	NULL
22	1004	5001	2	8101	0	6	0	0	8310	3	NULL
23	1004	5001	2	8102	6	16	1	0	8310	3	NULL
24	1004	5001	2	8103	11	25	2	0	8309	3	NULL

--Show all match taken place at Old Trafford
SELECT * FROM match
WHERE venue_id
IN (SELECT id FROM venues WHERE name = 'Old Trafford')

	id	start_date	end_date	venue_id	teamA	teamB	umpirea_id	umpireb_id	winner	potm
1	1004	2019-09-04	2019-09-08	4	5003	5001	7	5	5001	8104
2	2102	2020-07-16	2020-07-20	4	5003	5009	11	3	5003	8304
3	2103	2020-07-24	2020-07-28	4	5003	5009	11	8	5003	8310
4	2201	2020-08-05	2020-08-09	4	5003	5006	3	8	5003	8308

-- Total number of runs made by each team throughout
SELECT teams.name AS country,
(SELECT SUM(runs) FROM testruns
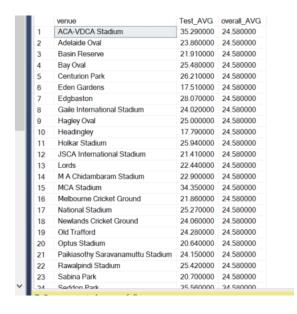 WHERE teams.id = testruns.team_id) AS runs
 FROM teams
 ORDER by runs DESC

country	runs
England	9922
Australia	7781
India	7740
Pakistan	5781
South Africa	5241
New Zealand	5020
West Indies	3991
Sri Lanka	3642
Bangladesh	2227

--Runs made by each player compared to overall
SELECT p.name, SUM(runs) AS total_runs_per_test,
(SELECT SUM(runs) FROM testruns) AS overall_AVG
FROM testruns
JOIN players AS p
ON testruns.player_id = p.id
WHERE runs IS NOT NULL
GROUP BY p.name
ORDER BY total_runs_per_test DESC

	name	total_runs_per_test	overall_AVG
	Marnus Labuschagne	1675	51345
	Joe Root	1589	51345
	Steve Smith	1341	51345
	Ben Stokes	1246	51345
	Ajinkya Rahane	1061	51345
	Jos Buttler	963	51345
	David Warner	948	51345
	Babar Azam	932	51345
	Rohit Sharma	890	51345
0	Mayank Agarwal	857	51345
1	Virat Kohli	850	51345
2	Dean Elgar	848	51345
3	Dom Sibley	832	51345
4	Kane Williamson	817	51345
5	Cheteshwar Pujara	801	51345
6	Rory Burns	795	51345
7	Azhar Ali	748	51345
8	Mohammad Rizwan	741	51345
9	Matthew Wade	727	51345
0	Tom Latham	680	51345
1	Zak Crawley	615	51345
2	Quinton de Kock	610	51345
3	Shan Masood	585	51345
4	Henry Nicholls	585	51345

-- Run AVG from each stadium compared to overall
SELECT v.name AS venue, ROUND(AVG(runs),2) AS Test_AVG,
(SELECT ROUND(AVG(runs), 2) FROM testruns) AS overall_AVG
FROM testruns
JOIN match AS m
ON testruns.match_id = m.id
JOIN venues AS v
ON m.venue_id = v.id
GROUP BY v.name

	venue	Test_AVG	overall_AVG
1	ACA-VDCA Stadium	35.290000	24.580000
2	Adelaide Oval	23.860000	24.580000
3	Basin Reserve	21.910000	24.580000
4	Bay Oval	25.480000	24.580000
5	Centurion Park	26.210000	24.580000
6	Eden Gardens	17.510000	24.580000
7	Edgbaston	28.070000	24.580000
8	Gaile International Stadium	24.020000	24.580000
9	Hagley Oval	25.000000	24.580000
10	Headingley	17.790000	24.580000
11	Holkar Stadium	25.940000	24.580000
12	JSCA International Stadium	21.410000	24.580000
13	Lords	22.440000	24.580000
14	M A Chidambaram Stadium	22.900000	24.580000
15	MCA Stadium	34.350000	24.580000
16	Melbourne Cricket Ground	21.860000	24.580000
17	National Stadium	25.270000	24.580000
18	Newlands Cricket Ground	24.060000	24.580000
19	Old Trafford	24.280000	24.580000
20	Optus Stadium	20.640000	24.580000
21	Paikiasothy Saravanamuttu Stadium	24.150000	24.580000
22	Rawalpindi Stadium	25.420000	24.580000
23	Sabina Park	20.700000	24.580000
24	Seddon Park	25.560000	24.580000

-- Number of runs scored by each team specifically via match and innings
SELECT teams.name AS country,
(SELECT SUM(runs) FROM testruns
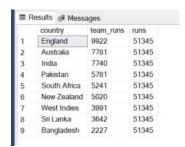 WHERE teams.id = testruns.team_id AND match_id= 1001 AND innings= 1) AS runs
 FROM teams
 ORDER by runs

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country	runs
India	NULL
New Zealand	NULL
Pakistan	NULL
South Africa	NULL
Sri Lanka	NULL
West Indies	NULL
Bangladesh	NULL
Australia	284
England	374

--Number of runs made by each team vs overall
SELECT t.name AS country, SUM(runs) AS team_runs,
(SELECT SUM(runs) FROM testruns) AS runs
 FROM testruns
 JOIN teams AS t
 ON testruns.team_id = t.id
 GROUP BY t.name
 ORDER by team_runs DESC

	country	team_runs	runs
1	England	9922	51345
2	Australia	7781	51345
3	India	7740	51345
4	Pakistan	5781	51345
5	South Africa	5241	51345
6	New Zealand	5020	51345
7	West Indies	3991	51345
8	Sri Lanka	3642	51345
9	Bangladesh	2227	51345

-- Number of runs made by each stadium
SELECT v.name,
(SELECT SUM(runs) FROM testruns
WHERE match.id = testruns.match_id) AS total_runs
FROM match
JOIN venues AS v
ON match.venue_id = v.id
ORDER BY total_runs DESC

	name	total_runs
1	ACA-VDCA Stadium	1447
2	The Gabba	1328
3	Zohur Ahmed Chowdhury Stadium	1307
4	Edgbaston	1291
5	M A Chidambaram Stadium	1285
6	National Stadium	1229
7	Sydney Cricket Ground	1228
8	Centurion Park	1197
9	Old Trafford	1181
10	The Gabba	1155
11	Hagley Oval	1142
12	Newlands Cricket Ground	1131
13	Adelaide Oval	1130
14	Bay Oval	1121
15	The Oval	1111
16	Wanderers Stadium	1105
17	Old Trafford	1083
18	Galle International Stadium	1069
19	MCA Stadium	1065
20	Sydney Cricket Ground	1063
21	National Stadium	1045
22	The Ageas Bowl	1043
23	Sher-e Bangla National Cricket Stadium	1035
24	The Ageas Bowl	1035

COMMON TABLE EXPRESSIONS

--Number of players who reach half-centuries in each venue
WITH tests AS (
SELECT match_id, runs, balls
FROM testruns AS b WHERE runs >= 50)
SELECT v.name AS venue, COUNT(tests.match_id) AS tests
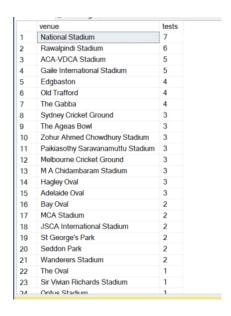FROM match AS m
JOIN venues AS v
ON m.venue_id = v.id
JOIN tests
ON tests.match_id = m.id
GROUP BY v.name
ORDER BY tests DESC

	venue	tests
	Old Trafford	28
	Galle International Stadium	19
	Sydney Cricket Ground	17
	The Gabba	15
	Rawalpindi Stadium	15
	Centurion Park	14
	National Stadium	14
	M A Chidambaram Stadium	13
	The Ageas Bowl	13
0	Hagley Oval	12
1	Bay Oval	10
2	Wanderers Stadium	10
3	Zohur Ahmed Chowdhury Stadium	9
4	Adelaide Oval	9
5	Basin Reserve	8
6	ACA-VDCA Stadium	8
7	Newlands Cricket Ground	8
8	Melbourne Cricket Ground	8
9	Sabina Park	7
0	Sher-e Bangla National Cricket Stadium	7
1	MCA Stadium	7
2	Edgbaston	7
3	Headingley	6
4	Paikiasothy Saravanamuttu Stadium	6

--Centuries
WITH tests AS (
SELECT match_id, runs, balls
FROM testruns AS b WHERE runs >= 100)
SELECT v.name AS venue, COUNT(tests.match_id) AS tests
FROM match AS m
JOIN venues AS v
ON m.venue_id = v.id
JOIN tests
ON tests.match_id = m.id
GROUP BY v.name
ORDER BY tests DESC

	venue	tests
1	National Stadium	7
2	Rawalpindi Stadium	6
3	ACA-VDCA Stadium	5
4	Gaile International Stadium	5
5	Edgbaston	4
6	Old Trafford	4
7	The Gabba	4
8	Sydney Cricket Ground	3
9	The Ageas Bowl	3
10	Zohur Ahmed Chowdhury Stadium	3
11	Paikiasothy Saravanamuttu Stadium	3
12	Melbourne Cricket Ground	3
13	M A Chidambaram Stadium	3
14	Hagley Oval	3
15	Adelaide Oval	3
16	Bay Oval	2
17	MCA Stadium	2
18	JSCA International Stadium	2
19	St George's Park	2
20	Seddon Park	2
21	Wanderers Stadium	2
22	The Oval	1
23	Sir Vivian Richards Stadium	1
24	Optus Stadium	1

--Total number of runs made so far by each player in the tournament
WITH test AS (
SELECT match_id, player_id, runs
FROM testruns)
SELECT p.name AS player, SUM(runs) AS highest_centuries
FROM players AS p
LEFT JOIN test AS t
ON p.id = t.player_id
WHERE runs IS NOT NULL
GROUP BY p.name
ORDER BY highest_centuries DESC

	player	highest_centuries
	Marnus Labuschagne	1675
	Joe Root	1589
	Steve Smith	1341
	Ben Stokes	1246
	Ajinkya Rahane	1061
	Jos Buttler	963
	David Warner	948
	Babar Azam	932
	Rohit Sharma	890
0	Mayank Agarwal	857
1	Virat Kohli	850
2	Dean Elgar	848
3	Dom Sibley	832
4	Kane Williamson	817
5	Cheteshwar Pujara	801
6	Rory Burns	795
7	Azhar Ali	748
8	Mohammad Rizwan	741
9	Matthew Wade	727
0	Tom Latham	680
1	Zak Crawley	615
2	Quinton de Kock	610
3	Shan Masood	585
4	Henry Nicholls	585

WINDOW FUNCTIONS
RANKINGS
--Rankings of Players scored the most runs in the Championship
SELECT p.name AS player,
RANK () OVER (ORDER BY SUM(runs)DESC) AS total_runs
FROM testruns AS t

```
JOIN players AS p
ON t.player_id = p.id
WHERE runs IS NOT NULL
GROUP BY p.name
ORDER BY total_runs
```

	player	total_runs
1	Marnus Labuschagne	1
2	Joe Root	2
3	Steve Smith	3
4	Ben Stokes	4
5	Ajinkya Rahane	5
6	Jos Buttler	6
7	David Warner	7
8	Babar Azam	8
9	Rohit Sharma	9
10	Mayank Agarwal	10
11	Virat Kohli	11
12	Dean Elgar	12
13	Dom Sibley	13
14	Kane Williamson	14
15	Cheteshwar Pujara	15
16	Rory Burns	16
17	Azhar Ali	17
18	Mohammad Rizwan	18
19	Matthew Wade	19
20	Tom Latham	20
21	Zak Crawley	21
22	Quinton de Kock	22
23	Shan Masood	23
24	Henry Nicholls	23

```
SELECT p.name, SUM(runs),
RANK () OVER (ORDER BY SUM(runs)DESC) AS total_runs
FROM testruns AS t
JOIN players AS p
ON t.player_id = p.id
WHERE runs IS NOT NULL
GROUP BY p.name
ORDER BY total_runs
```

	name	(No column name)	total_runs
1	Marnus Labuschagne	1675	1
2	Joe Root	1589	2
3	Steve Smith	1341	3
4	Ben Stokes	1246	4
5	Ajinkya Rahane	1061	5
6	Jos Buttler	963	6
7	David Warner	948	7
8	Babar Azam	932	8
9	Rohit Sharma	890	9
10	Mayank Agarwal	857	10
11	Virat Kohli	850	11
12	Dean Elgar	848	12
13	Dom Sibley	832	13
14	Kane Williamson	817	14
15	Cheteshwar Pujara	801	15
16	Rory Burns	795	16
17	Azhar Ali	748	17
18	Mohammad Rizwan	741	18
19	Matthew Wade	727	19
20	Tom Latham	680	20
21	Zak Crawley	615	21
22	Quinton de Kock	610	22
23	Shan Masood	585	23
24	Henry Nicholls	585	23

--Number of balls bowled by each country
SELECT v.country, SUM(balls),
RANK () OVER (ORDER BY SUM(balls)DESC) AS total_balls
FROM testruns AS t
JOIN match AS m
ON t.match_id = m.id
JOIN venues AS v
ON m.venue_id = v.id
WHERE runs IS NOT NULL
GROUP BY v.country
ORDER BY total_balls

country	(No column name)	total_balls
United Kingdom	20435	1
Australia	18002	2
India	12283	3
South Africa	10994	4
New Zealand	10480	5
Pakistan	8820	6
Sri Lanka	7850	7
Bangladesh	4799	8
Antigua and Barbuda	1867	9
Jamaica	1814	10

SLIDING FUNCTIONS
--Running total of runs and average
SELECT match_id, testruns.team_id, p.name AS player, runs, innings,
SUM(runs) OVER(ORDER BY match_id ROWS BETWEEN UNBOUNDED PRECEDING
AND CURRENT ROW) AS running_total,
AVG(runs) OVER(ORDER BY match_id ROWS BETWEEN UNBOUNDED PRECEDING
AND CURRENT ROW) AS running_avg
FROM testruns
LEFT JOIN players AS p
ON testruns.player_id = p.id

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match_id	team_id	player	runs	innings	running_total	running_avg
1001	5001	Cameron Bancroft	8	1	8	8.000000
1001	5001	David Warner	2	1	10	5.000000
1001	5001	Usman Khawaja	13	1	23	7.666666
1001	5001	Steve Smith	144	1	167	41.750000
1001	5001	Travis Head	35	1	202	40.400000
1001	5001	Matthew Wade	1	1	203	33.833333
1001	5001	Tim Paine	5	1	208	29.714285
1001	5001	James Pattinson	0	1	208	26.000000
1001	5001	Pat Cummins	5	1	213	23.666666
1001	5001	Peter Siddle	44	1	257	25.700000
1001	5001	Nathan Lyon	12	1	269	24.454545
1001	5001	NULL	15	1	284	23.666666
1001	5003	Rory Burns	133	1	417	32.076923
1001	5003	Jason Roy	10	1	427	30.500000
1001	5003	Joe Root	57	1	484	32.266666
1001	5003	Joe Denly	18	1	502	31.375000
1001	5003	Jos Buttler	5	1	507	29.823529
1001	5003	Ben Stokes	50	1	557	30.944444
1001	5003	Jonny Bairstow	8	1	565	29.736842
1001	5003	Moeen Ali	0	1	565	28.250000
1001	5003	Chris Woakes	37	1	602	28.666666
1001	5003	Stuart Broad	29	1	631	28.681818
1001	5003	James Anderson	3	1	634	27.565217

--Number of Overs played in a game
SELECT match_id, innings, team_id, SUM(balls/6.0) AS overs
FROM testruns
GROUP BY match_id, innings, team_id
ORDER BY match_id, innings

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	match_id	innings	team_id	overs
1	1001	1	5001	80.666662
2	1001	1	5003	135.999996
3	1001	2	5001	112.999998
4	1001	2	5003	52.833329
5	1002	1	5001	94.666663
6	1002	1	5003	77.166663
7	1002	2	5001	47.666664
8	1002	2	5003	71.166664
9	1003	1	5001	52.499997
10	1003	1	5003	27.833329
11	1003	2	5001	76.499997
12	1003	2	5003	125.833331
13	1004	1	5001	126.666663
14	1004	1	5003	107.666664
15	1004	2	5001	42.999997
16	1004	2	5003	91.833331
17	1005	1	5001	68.833330
18	1005	1	5003	87.499996
19	1005	2	5001	77.333329
20	1005	2	5003	95.666664
21	1101	1	5005	83.499996
22	1101	1	5008	93.333329
23	1101	2	5005	106.333329
24	1101	2	5008	86.166664

--Run ranges by a player (Kane Willamson)
With bins AS (
SELECT generate_series(0, 290, 10) AS lower,
generate_series(10, 300, 10) AS upper),
runs AS (SELECT player_id, runs FROM testruns)
SELECT lower, upper, count(runs)
FROM bins
JOIN runs
ON runs >= lower
AND runs < upper
WHERE player_id = 8503
GROUP BY lower, upper
ORDER BY lower

	lower integer	upper integer	count bigint
1	0	10	6
2	10	20	1
3	20	30	2
4	30	40	1
5	80	90	1
6	120	130	1
7	230	240	1
8	250	260	1

-- Number of balls bowled within a range
```
WITH bins AS (
SELECT generate_series (0, 500, 50) AS lower,
generate_series (50, 550, 50) AS upper),
balls AS (
SELECT balls FROM testruns)
SELECT lower, upper, COUNT(*)
FROM bins
JOIN balls
ON balls >= lower
AND balls < upper
GROUP BY lower, upper
ORDER BY lower
```

	lower integer	upper integer	count bigint
1	0	50	1110
2	50	100	307
3	100	150	150
4	150	200	59
5	200	250	28
6	250	300	14
7	300	350	9
8	350	400	6
9	400	450	2

-- Mean and Median of runs made per venue
```
SELECT v.name AS venue, ROUND(AVG(runs), 2) AS mean, percentile_disc(0.5)
WITHIN GROUP (ORDER BY runs) AS runs
FROM testruns
JOIN match AS m
ON testruns.match_id = m.id
JOIN venues AS v
ON m.venue_id = v.id
GROUP BY v.name
ORDER BY mean DESC
```

	venue character varying (100)	mean numeric	runs integer
1	ACA-VDCA Stadium	35.29	15
2	MCA Stadium	34.35	14
3	The Gabba	30.28	20
4	National Stadium	29.26	9
5	Sydney Cricket Ground	29.00	18
6	Edgbaston	28.07	12
7	St George's Park	27.00	18
8	Centurion Park	26.21	16
9	The Ageas Bowl	26.06	15
10	Holkar Stadium	25.94	10
11	Seddon Park	25.56	10
12	Bay Oval	25.48	10
13	Rawalpindi Stadium	25.42	15
14	Hagley Oval	25.00	14

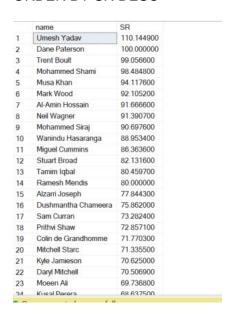**-- Mean and Median of runs made per player**
SELECT p.name AS player, AVG(runs) AS mean, percentile_disc(0.5)
WITHIN GROUP (ORDER BY runs) AS runs
FROM testruns
JOIN players AS p
ON testruns.player_id = p.id
WHERE runs IS NOT NULL
GROUP BY p.name
ORDER BY mean DESC

	player character varying (100)	mean numeric	runs integer
1	Marnus Labuschagne	72.83	59
2	Rohit Sharma	68.50	26
3	Steve Smith	60.95	43
4	Kane Williamson	58.36	14
5	Babar Azam	56.47	60
6	Daryl Mitchell	51.00	42
7	Faheem Ashraf	50.00	48
8	Ben Stokes	47.13	28
9	Mushfiqur Rahim	45.25	43
10	Ajinkya Rahane	44.68	29
11	Joe Root	44.55	29
12	Virat Kohli	44.06	14
13	Dimuth Karunaratne	43.64	25
14	Shubman Gill	43.17	35

MISCELLANEOUS
--StrikeRates for each player
```
SELECT p.name, (SUM(runs)/NULLIF(SUM(balls), 0.0)* 100) AS SR
FROM testruns m
JOIN players p
ON m.player_id = p.id
WHERE runs IS NOT NULL
AND runs != 0
GROUP BY p.name
ORDER BY SR DESC
```

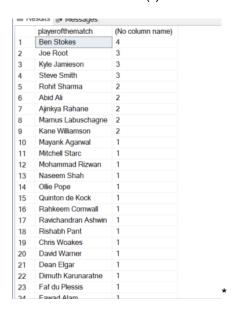|	name	SR
1	Umesh Yadav	110.144900
2	Dane Paterson	100.000000
3	Trent Boult	99.056600
4	Mohammed Shami	98.484800
5	Musa Khan	94.117600
6	Mark Wood	92.105200
7	Al-Amin Hossain	91.666600
8	Neil Wagner	91.390700
9	Mohammed Siraj	90.697600
10	Wanindu Hasaranga	88.953400
11	Miguel Cummins	86.363600
12	Stuart Broad	82.131600
13	Tamim Iqbal	80.459700
14	Ramesh Mendis	80.000000
15	Alzarri Joseph	77.844300
16	Dushmantha Chameera	75.862000
17	Sam Curran	73.282400
18	Prithvi Shaw	72.857100
19	Colin de Grandhomme	71.770300
20	Mitchell Starc	71.335500
21	Kyle Jamieson	70.625000
22	Daryl Mitchell	70.506900
23	Moeen Ali	69.736800
24	Kusal Perera	68.637500

```
SELECT p.name, (SUM(runs)/NULLIF(SUM(balls), 0.0)* 100) AS SR
FROM testruns t
JOIN players p
ON t.player_id = p.id
WHERE runs IS NOT NULL
AND runs != 0
GROUP BY match_id, p.name
ORDER BY SR DESC
```

name	SR
Umesh Yadav	310.000000
Umesh Yadav	250.000000
Tim Southee	240.000000
Trent Boult	200.000000
Mohammed Shami	200.000000
Alzarri Joseph	200.000000
Mark Wood	182.608600
Quinton de Kock	163.636300
Neil Wagner	160.000000
Trent Boult	158.333300
Neil Wagner	157.142800
Stuart Broad	151.724100
Alzarri Joseph	150.000000
Quinton de Kock	145.000000
William Somerville	140.000000
Stuart Broad	137.777700
Kyle Jamieson	136.363600
Dane Paterson	133.333300
Stuart Broad	133.333300
Naseem Shah	133.333300
Naseem Shah	133.333300
Nathan Lyon	133.333300
Wriddhiman Saha	131.250000

--Number of Player of the Match Awards
SELECT p.name playerofthematch, COUNT(*)
FROM match
JOIN players AS p
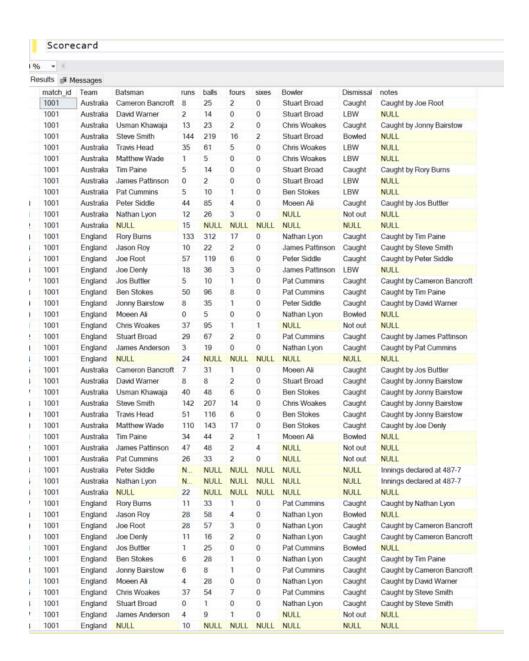ON match.potm = p.id
GROUP BY p.name
ORDER BY COUNT(*) DESC

	playerofthematch	(No column name)
1	Ben Stokes	4
2	Joe Root	3
3	Kyle Jamieson	3
4	Steve Smith	3
5	Rohit Sharma	2
6	Abid Ali	2
7	Ajinkya Rahane	2
8	Marnus Labuschagne	2
9	Kane Williamson	2
10	Mayank Agarwal	1
11	Mitchell Starc	1
12	Mohammad Rizwan	1
13	Naseem Shah	1
14	Ollie Pope	1
15	Quinton de Kock	1
16	Rahkeem Cornwall	1
17	Ravichandran Ashwin	1
18	Rishabh Pant	1
19	Chris Woakes	1
20	David Warner	1
21	Dean Elgar	1
22	Dimuth Karunaratne	1
23	Faf du Plessis	1
24	Fawad Alam	1

*

STORED PROCEDURES

Matchlist

Matchlist

19 %

Results | Messages

	id	start_date	end_date	venue	name	name	name	name	name	name
1	1001	2019-08-01	2019-08-05	Edgbaston	England	Australia	Aleem Dar	Joel Wilson	Australia	Steve Smith
2	1002	2019-08-14	2019-08-18	Lords	England	Australia	Aleem Dar	Chris Gaffaney	NULL	Ben Stokes
3	1003	2019-08-22	2019-08-26	Headingley	England	Australia	Joel Wilson	Chris Gaffaney	England	Ben Stokes
4	1004	2019-09-04	2019-09-08	Old Trafford	England	Australia	Kumar Dharmasena	Marais Erasmus	Australia	Steve Smith
5	1005	2019-09-12	2019-09-16	The Oval	England	Australia	Kumar Dharmasena	Marais Erasmus	England	Jofra Archer
6	1101	2019-08-14	2019-08-18	Gaile International Stadium	Sri Lanka	New Zealand	Richard Illingworth	Michael Gough	Sri Lanka	Dimuth Karunaratne
7	1102	2019-08-22	2019-08-26	Paikiasothy Saravanamuttu Stadium	Sri Lanka	New Zealand	Bruce Oxenford	Michael Gough	New Zealand	Tom Latham
8	1201	2019-08-22	2019-08-26	Sir Vivian Richards Stadium	West Indies	India	Rod Tucker	Richard Kettleborough	India	Ajinkya Rahane
9	1202	2019-08-30	2019-09-03	Sabina Park	West Indies	India	Paul Reiffel	Richard Kettleborough	India	Hanuma Vihari
10	1301	2019-10-02	2019-10-06	ACA-VDCA Stadium	India	South Africa	Richard Illingworth	Chris Gaffaney	India	Rohit Sharma
11	1302	2019-10-10	2019-10-13	MCA Stadium	India	South Africa	Chris Gaffaney	Nigel Llong	India	Virat Kohli
12	1303	2019-10-19	2019-10-23	JSCA International Stadium	India	South Africa	Richard Illingworth	Nigel Llong	India	Rohit Sharma
13	1401	2019-11-14	2019-11-18	Holkar Stadium	India	Bangladesh	Marais Erasmus	Rod Tucker	India	Mayank Agarwal
14	1402	2019-11-22	2019-11-26	Eden Gardens	India	Bangladesh	Marais Erasmus	Joel Wilson	India	Ishant Sharma
15	1501	2019-11-21	2019-11-25	The Gabba	Australia	Pakistan	Richard Illingworth	Richard Kettleborough	Australia	Marnus Labuschagne
16	1502	2019-11-29	2019-12-03	Adelaide Oval	Australia	Pakistan	Richard Illingworth	Michael Gough	Australia	David Warner
17	1601	2019-12-11	2019-12-15	Rawalpindi Stadium	Pakistan	Sri Lanka	Michael Gough	Richard Kettleborough	NULL	Abid Ali
18	1602	2019-12-19	2019-12-23	National Stadium	Pakistan	Sri Lanka	Bruce Oxenford	Joel Wilson	Pakistan	Abid Ali
19	1701	2019-12-12	2019-12-16	Optus Stadium	Australia	New Zealand	Aleem Dar	Nigel Llong	Australia	Mitchell Starc
20	1702	2019-12-25	2019-12-28	Melbourne Cricket Ground	Australia	New Zealand	Nigel Llong	Marais Erasmus	Australia	Travis Head
21	1703	2020-01-02	2020-01-05	Sydney Cricket Ground	Australia	New Zealand	Aleem Dar	Marais Erasmus	Australia	Marnus Labuschagne
22	1801	2019-10-26	2019-12-30	Centurion Park	South Africa	England	Paul Reiffel	Chris Gaffaney	South Africa	Quinton de Kock
23	1802	2020-01-03	2020-01-07	Newlands Cricket Ground	South Africa	England	Kumar Dharmasena	Paul Reiffel	England	Ben Stokes
24	1803	2020-01-16	2020-01-20	St George's Park	South Africa	England	Bruce Oxenford	Rod Tucker	England	Ollie Pope
25	1804	2020-01-24	2020-01-28	Wanderers Stadium	South Africa	England	Rod Tucker	Joel Wilson	England	Mark Wood
26	1901	2020-02-07	2020-02-11	Rawalpindi Stadium	Pakistan	Bangladesh	Nigel Llong	Chris Gaffaney	Pakistan	Naseem Shah
27	2001	2020-02-21	2020-02-25	Basin Reserve	New Zeala...	India	Richard Kettlebor...	Aleem Dar	New Zealand	Tim Southee
28	2002	2020-02-29	2020-03-04	Hagley Oval	New Zeala...	India	Richard Kettlebor...	Michael Gough	New Zealand	Kyle Jamieson
29	2101	2020-07-08	2020-07-12	The Ageas Bowl	England	West Indies	Richard Illingworth	Richard Kettleborough	West Indies	Shannon Gabriel
30	2102	2020-07-16	2020-07-20	Old Trafford	England	West Indies	Michael Gough	Richard Illingworth	England	Ben Stokes
31	2103	2020-07-24	2020-07-28	Old Trafford	England	West Indies	Michael Gough	Richard Kettleborough	England	Stuart Broad
32	2201	2020-08-05	2020-08-09	Old Trafford	England	Pakistan	Richard Illingworth	Richard Kettleborough	England	Chris Woakes
33	2202	2020-08-13	2020-08-17	The Ageas Bowl	England	Pakistan	Richard Kettlebor...	Michael Gough	NULL	Mohammad Rizwan
34	2203	2020-08-21	2020-08-25	The Ageas Bowl	England	Pakistan	Richard Illingworth	Michael Gough	NULL	Zak Crawley
35	2301	2020-12-03	2020-12-07	Seddon Park	New Zeala...	West Indies	Chris Gaffaney	Wayne Knights	New Zealand	Kane Williamson
36	2302	2020-12-11	2020-12-15	Basin Reserve	New Zeala...	West Indies	Chris Gaffaney	Chris Brown	New Zealand	Kyle Jamieson
37	2401	2020-12-17	2020-12-21	Adelaide Oval	Australia	India	Bruce Oxenford	Paul Reiffel	Australia	Tim Paine
38	2402	2020-12-26	2020-12-30	Melbourne Cricket Ground	Australia	India	Bruce Oxenford	Paul Reiffel	India	Ajinkya Rahane
39	2403	2021-01-07	2021-01-07	Sydney Cricket Ground	Australia	India	Paul Reiffel	Paul Wilson	NULL	Steve Smith
40	2404	2021-01-15	2021-01-19	The Gabba	Australia	India	Bruce Oxenford	Paul Wilson	India	Rishabh Pant
41	2501	2020-12-26	2021-12-30	Bay Oval	New Zeala...	Pakistan	Chris Gaffaney	Wayne Knights	New Zealand	Kane Williamson
42	2502	2021-01-03	2021-01-07	Hagley Oval	New Zeala...	Pakistan	Chris Gaffaney	Chris Brown	New Zealand	Kyle Jamieson
43	2601	2021-01-03	2020-12-30	Centurion Park	South Africa	Sri Lanka	Marais Erasmus	Adrian Holdstock	South Africa	Faf du Plessis
44	2602	2021-01-03	2021-01-07	Wanderers Stadium	South Africa	Sri Lanka	Marais Erasmus	Adrian Holdstock	South Africa	Dean Elgar
45	2701	2021-01-14	2021-01-18	Gaile International Stadium	Sri Lanka	England	Kumar Dharmasena	Ruchira Palliyaguruge	England	Joe Root
46	2702	2021-01-23	2021-01-27	Gaile International Stadium	Sri Lanka	England	Kumar Dharmasena	Ruchira Palliyaguruge	England	Joe Root
47	2801	2021-01-26	2021-01-30	Rawalpindi Stadium	Pakistan	South Africa	Aleem Dar	Ahsan Raza	Pakistan	Fawad Alam
48	2802	2021-02-04	2020-02-08	National Stadium	Pakistan	South Africa	Aleem Dar	Ahsan Raza	Pakistan	Hasan Ali

Scorecard

match_id	Team	Batsman	runs	balls	fours	sixes	Bowler	Dismissal	notes
1001	Australia	Cameron Bancroft	8	25	2	0	Stuart Broad	Caught	Caught by Joe Root
1001	Australia	David Warner	2	14	0	0	Stuart Broad	LBW	NULL
1001	Australia	Usman Khawaja	13	23	2	0	Chris Woakes	Caught	Caught by Jonny Bairstow
1001	Australia	Steve Smith	144	219	16	2	Stuart Broad	Bowled	NULL
1001	Australia	Travis Head	35	61	5	0	Chris Woakes	LBW	NULL
1001	Australia	Matthew Wade	1	5	0	0	Chris Woakes	LBW	NULL
1001	Australia	Tim Paine	5	14	0	0	Stuart Broad	Caught	Caught by Rory Burns
1001	Australia	James Pattinson	0	2	0	0	Stuart Broad	LBW	NULL
1001	Australia	Pat Cummins	5	10	1	0	Ben Stokes	LBW	NULL
1001	Australia	Peter Siddle	44	85	4	0	Moeen Ali	Caught	Caught by Jos Buttler
1001	Australia	Nathan Lyon	12	26	3	0	NULL	Not out	NULL
1001	Australia	NULL	15	NULL	NULL	NULL	NULL	NULL	NULL
1001	England	Rory Burns	133	312	17	0	Nathan Lyon	Caught	Caught by Tim Paine
1001	England	Jason Roy	10	22	2	0	James Pattinson	Caught	Caught by Steve Smith
1001	England	Joe Root	57	119	6	0	Peter Siddle	Caught	Caught by Peter Siddle
1001	England	Joe Denly	18	36	3	0	James Pattinson	LBW	NULL
1001	England	Jos Buttler	5	10	1	0	Pat Cummins	Caught	Caught by Cameron Bancroft
1001	England	Ben Stokes	50	96	8	0	Pat Cummins	Caught	Caught by Tim Paine
1001	England	Jonny Bairstow	8	35	1	0	Peter Siddle	Caught	Caught by David Warner
1001	England	Moeen Ali	0	5	0	0	Nathan Lyon	Bowled	NULL
1001	England	Chris Woakes	37	95	1	1	NULL	Not out	NULL
1001	England	Stuart Broad	29	67	2	0	Pat Cummins	Caught	Caught by James Pattinson
1001	England	James Anderson	3	19	0	0	Nathan Lyon	Caught	Caught by Pat Cummins
1001	England	NULL	24	NULL	NULL	NULL	NULL	NULL	NULL
1001	Australia	Cameron Bancroft	7	31	1	0	Moeen Ali	Caught	Caught by Jos Buttler
1001	Australia	David Warner	8	8	2	0	Stuart Broad	Caught	Caught by Jonny Bairstow
1001	Australia	Usman Khawaja	40	48	6	0	Ben Stokes	Caught	Caught by Jonny Bairstow
1001	Australia	Steve Smith	142	207	14	0	Chris Woakes	Caught	Caught by Jonny Bairstow
1001	Australia	Travis Head	51	116	6	0	Ben Stokes	Caught	Caught by Jonny Bairstow
1001	Australia	Matthew Wade	110	143	17	0	Ben Stokes	Caught	Caught by Joe Denly
1001	Australia	Tim Paine	34	44	2	1	Moeen Ali	Bowled	NULL
1001	Australia	James Pattinson	47	48	2	4	NULL	Not out	NULL
1001	Australia	Pat Cummins	26	33	2	0	NULL	Not out	NULL
1001	Australia	Peter Siddle	N...	NULL	NULL	NULL	NULL	NULL	Innings declared at 487-7
1001	Australia	Nathan Lyon	N...	NULL	NULL	NULL	NULL	NULL	Innings declared at 487-7
1001	Australia	NULL	22	NULL	NULL	NULL	NULL	NULL	NULL
1001	England	Rory Burns	11	33	1	0	Pat Cummins	Caught	Caught by Nathan Lyon
1001	England	Jason Roy	28	58	4	0	Nathan Lyon	Bowled	NULL
1001	England	Joe Root	28	57	3	0	Nathan Lyon	Caught	Caught by Cameron Bancroft
1001	England	Joe Denly	11	16	2	0	Nathan Lyon	Caught	Caught by Cameron Bancroft
1001	England	Jos Buttler	1	25	0	0	Pat Cummins	Bowled	NULL
1001	England	Ben Stokes	6	28	1	0	Nathan Lyon	Caught	Caught by Tim Paine
1001	England	Jonny Bairstow	6	8	1	0	Pat Cummins	Caught	Caught by Cameron Bancroft
1001	England	Moeen Ali	4	28	0	0	Nathan Lyon	Caught	Caught by David Warner
1001	England	Chris Woakes	37	54	7	0	Pat Cummins	Caught	Caught by Steve Smith
1001	England	Stuart Broad	0	1	0	0	Nathan Lyon	Caught	Caught by Steve Smith
1001	England	James Anderson	4	9	1	0	NULL	Not out	NULL
1001	England	NULL	10	NULL	NULL	NULL	NULL	NULL	NULL

Create Record

```
EXECUTE dbo.createrecord 3101, 5009, 1, 8902, 55, 78, 3, 0, 8110, 1, NULL
```

23...	3101	5009	1	8902	55	78	3	0	8110	1	NULL

TRIGGERS

--Players for insert

```sql
INSERT INTO players (id, name, role_id, team_id) VALUES (8326, 'Peter Ly', 1, 5003);
SELECT * FROM playersAudit
```

Results | Messages

id	audit_data
NULL	New player added with id = 8322 is added at Jan 29 2021 10:46PM
8322	New player added with id = 8322 is added at Jan 29 2021 10:49PM
NULL	NULL
8322	An existing employee with ID = 8322 is deleted at Jan 29 2021 11:36PM
NULL	NULL
8322	New player added with id = 8322 is added at Jan 29 2021 11:57PM
8322	Player with id = 8322changed
8322	
8322	Player with id = 8322changed NAME from Reece Topley to Tom Banton Role_ID from 2 to 1
8322	Player with id = 8322changed NAME from Tom Banton to Kenton Jennings Role_ID from 1 to 5
8322	Player with id = 8322 changed NAME from Kenton Jennings to Ben Foakes Role_ID from 5 to 2
8121	New player added with id = 8121 is added at Feb 2 2021 12:07AM
8121	Player with id = 8121 changed NAME from Peter to Thomas Tuchel Role_ID from 2 to 3
8121	Player with id = 8121 changed NAME from Thomas Tuchel to Michael Williams Role_ID from 3 to 5 Team_I
8121	Player with id = 8121 changed NAME from Michael Williams to Joseph Williams Role_ID from 5 to 1 Team
8326	New player added with id = 8326 is added at Feb 22 2021 4:41PM

--Players for update

```sql
UPDATE players SET name = 'Mason Mount' WHERE id = 8326
SELECT * FROM playersAudit
```

Results | Messages

id	audit_data
NULL	New player added with id = 8322 is added at Jan 29 2021 10:46PM
8322	New player added with id = 8322 is added at Jan 29 2021 10:49PM
NULL	NULL
8322	An existing employee with ID = 8322 is deleted at Jan 29 2021 11:36PM
NULL	NULL
8322	New player added with id = 8322 is added at Jan 29 2021 11:57PM
8322	Player with id = 8322changed
8322	
8322	Player with id = 8322changed NAME from Reece Topley to Tom Banton Role_ID from 2 to 1
8322	Player with id = 8322changed NAME from Tom Banton to Kenton Jennings Role_ID from 1 to 5
8322	Player with id = 8322 changed NAME from Kenton Jennings to Ben Foakes Role_ID from 5 to 2
8121	New player added with id = 8121 is added at Feb 2 2021 12:07AM
8121	Player with id = 8121 changed NAME from Peter to Thomas Tuchel Role_ID from 2 to 3
8121	Player with id = 8121 changed NAME from Thomas Tuchel to Michael Williams Role_ID from 3 to 5 Team_I
8121	Player with id = 8121 changed NAME from Michael Williams to Joseph Williams Role_ID from 5 to 1 Team
8326	New player added with id = 8326 is added at Feb 22 2021 4:41PM
8326	Player with id = 8326 changed
8326	Player with id = 8326 changed NAME from Mason Mount to Reece James
8326	Player with id = 8326 changed NAME from Reece James to Peter Ly
8326	Player with id = 8326 changed NAME from Peter Ly to Mason Mount

Functions

--Total Runs

```sql
SELECT dbo.fnGetTotalRunsByPlayer (8303) AS Joe_Root_Runs
```

119 %

Results | Messages

	Joe_Root_Runs
1	1589

--Total Wickets

```sql
SELECT dbo.GetTotalWicketsByBowler(8609) AS Shaheen_Afridi_Total_Wickets
```

119 %

Results | Messages

	Shaheen_Afridi_Total_Wickets
1	36