

## ENGLPAK series

SELECT \* FROM teams

Data Output Explain Messages Notifications			
	<b>id</b> [PK] integer	<b>name</b> character varying (25)	<b>coach</b> character varying (50)
1		1 England	Chris Silverwood
2		2 Pakistan	Misbah ul-Haq




SELECT \* FROM venues

Data Output Explain Messages Notifications			
	<b>id</b> [PK] integer	<b>name</b> character varying (50)	<b>city</b> character varying (50)
1		1 Old Trafford	Manchester
2		2 The Ageas Bowl	Southampton




SELECT \* FROM umpires

Data Output Explain Messages Notifications			
	<b>id</b> [PK] integer	<b>name</b> character varying (100)	
1		1 Richard Illingworth	
2		2 Richard Kettleborough	
3		3 Michael Gough	
4		4 Alexander Wharf	
5		5 Michael Burns	
6		6 David Millns	
7		7 Martin Saggers	

SELECT \* FROM wickets






Data Output	Explain	Messages	Notifications
 id [PK] integer	 dismissal character varying (25)		
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

Data Output		Explain	Messages	Notifications
	<b>id</b> [PK] integer 	<b>role</b> character varying (25) 		
1		1 Batsman		
2		2 Bowler		
3		3 Wicket-keeper		
4		4 Captain		
5		5 All-rounder		

SELECT \* FROM players

(52 records)

Data Output		Explain	Messages	Notifications	
	id [PK] integer 	name character varying (50) 	role_id integer 	team_id integer 	
1	2001	Joe Root	4	1	
2	2002	James Anderson	2	1	
3	2003	Jofra Archer	2	1	
4	2004	Dom Bess	2	1	
5	2005	Stuart Broad	2	1	
6	2006	Rory Burns	1	1	
7	2007	Jos Buttler	3	1	
8	2008	Sam Curran	5	1	
9	2009	Zak Crawley	1	1	
10	2010	Ollie Pope	1	1	
11	2011	Dom Sibley	1	1	
12	2012	Ben Stokes	5	1	
13	2013	Chris Woakes	2	1	
14	2101	Eoin Morgan	4	1	
15	2102	Moeen Ali	5	1	
16	2103	Jonny Bairstow	3	1	
17	2104	Tom Banton	1	1	
18	2105	Sam Billings	1	1	
19	2106	Tom Curran	2	1	
20	2107	Joe Denly	1	1	
21	2108	Lewis Gregory	1	1	

SELECT \* FROM match

Data Output														Explain	Messages	Notifications
	id [PK] integer	start_date date	end_date date	format_id integer	venue_id integer	teama_id integer	teamb_id integer	umpire1_id integer	umpire2_id integer	winner integer	potm integer					
1	1001	2020-08-05	2020-08-08	1	1	1	2	1	2	1	2013					
2	1002	2020-08-13	2020-08-17	1	2	1	2	2	3	[null]	2209					
3	1003	2020-08-21	2020-08-25	1	2	1	2	1	3	[null]	2009					
4	1004	2020-08-28	2020-08-28	2	1	1	2	4	5	[null]	[null]					
5	1005	2020-08-30	2020-08-30	2	1	1	2	7	6	1	2101					
6	1006	2020-09-01	2020-09-01	2	1	1	2	5	6	2	2306					

SELECT \* FROM matchruns

(216 records)

Data Output		Explain	Messages	Notifications							
	match_id integer	team_id integer	innings integer	player_id integer	runs integer	balls integer	fours integer	sixes integer	bowler_id integer	wicket_id integer	notes character varying (100)
1	1001	2	1	2208	156	319	18	2	2005	3	[null]
2	1001	2	1	2205	16	37	2	0	2003	1	[null]
3	1001	2	1	2201	0	6	0	0	2013	3	[null]
4	1001	2	1	2206	69	106	11	0	2002	2	Caught by Joe Root
5	1001	2	1	2211	7	22	1	0	2005	2	Caught by Ben Stokes
6	1001	2	1	2209	9	41	0	0	2013	2	Caught by Jos Buttler
7	1001	2	1	2207	45	76	3	0	2004	2	Caught by Joe Root
8	1001	2	1	2210	5	25	0	0	2003	3	[null]
9	1001	2	1	2202	0	1	0	0	2003	2	Caught by Joe Root
10	1001	2	1	2203	9	18	2	0	[null]	6	[null]
11	1001	2	1	2212	0	8	0	0	2005	2	Caught by Jos Buttler
12	1001	2	1	[null]	10	[null]	[null]	[null]	[null]	[null]	[null]
13	1001	1	1	2006	4	4	1	0	2203	3	[null]
14	1001	1	1	2011	8	8	1	0	2202	3	[null]
15	1001	1	1	2001	14	58	2	0	2210	2	Caught by Mohammad Rizwan
16	1001	1	1	2012	0	7	0	0	2202	1	[null]
17	1001	1	1	2010	62	117	8	0	2212	2	Caught by Shadab Khan
18	1001	1	1	2007	38	108	5	0	2210	1	[null]
19	1001	1	1	2013	19	48	2	0	2210	1	[null]
20	1001	1	1	2004	1	12	0	0	2210	2	Caught by Asad Shafiq
21	1001	1	1	2003	16	33	1	0	2207	2	Caught by Mohammad Rizwan

## WHERE

--Number of runs scored in both innings of England vs Pakistan Series

SELECT match\_id, team\_id, innings, SUM(runs)

FROM matchruns

WHERE match\_id = 1001

GROUP BY match\_id, team\_id, innings

ORDER BY match\_id, innings

	Data Output	Explain	Messages	Notifications
	match_id integer	team_id integer	innings integer	sum bigint
1	1001	1	1	219
2	1001	2	1	326
3	1001	2	2	169
4	1001	1	2	277

--Matches that took place at Old Trafford

SELECT \* FROM match

JOIN venues

ON match.venue\_id = venues.id

WHERE name = 'Old Trafford'

Data Output															Explain	Messages	Notifications
id integer	start_date date	end_date date	format_id integer	venue_id integer	team_a_id integer	team_b_id integer	umpire1_id integer	umpire2_id integer	winner integer	potm integer	id integer	name character varying (50)	city character varying (50)				
1	1001	2020-08-05	2020-08-08	1	1	1	2	1	2	1	2013	1 Old Trafford	Manchester				
2	1004	2020-08-28	2020-08-28	2	1	1	2	4	5	[null]	[null]	1 Old Trafford	Manchester				
3	1005	2020-08-30	2020-08-30	2	1	1	2	7	6	1	2101	1 Old Trafford	Manchester				
4	1006	2020-09-01	2020-09-01	2	1	1	2	5	6	2	2306	1 Old Trafford	Manchester				

--Which players were out via Bowled

SELECT \* FROM matchruns

JOIN wickets

ON matchruns.wicket\_id = wickets.id













WHERE dismissal = 'Bowled'

Data Output													Explain		Messages		Notifications	
match_id integer	team_id integer	innings integer	player_id integer	runs integer	balls integer	fours integer	sixes integer	bowler_id integer	wicket_id integer	notes character varying (100)	id integer	dismissal character varying (25)						
1	1001	2	1	2205	16	37	2	0	2003	1 [null]		1 Bowled						
2	1001	1	1	2012	0	7	0	0	2202	1 [null]		1 Bowled						
3	1001	1	1	2007	38	108	5	0	2210	1 [null]		1 Bowled						
4	1001	1	1	2013	19	48	2	0	2210	1 [null]		1 Bowled						
5	1001	2	2	2212	4	3	1	0	2003	1 [null]		1 Bowled						
6	1003	1	1	2010	3	15	0	0	2210	1 [null]		1 Bowled						
7	1003	1	1	2005	15	18	0	2	2203	1 [null]		1 Bowled						
8	1006	2	1	2301	21	18	3	0	2106	1 [null]		1 Bowled						
9	1006	2	1	2313	1	3	0	0	2102	1 [null]		1 Bowled						
10	1006	2	1	2305	54	33	5	2	2109	1 [null]		1 Bowled						
11	1006	1	1	2103	0	3	0	0	2203	1 [null]		1 Bowled						
12	1006	1	1	2108	12	8	2	0	2203	1 [null]		1 Bowled						

--Number of stumps/catches made by Mohammad Rizwan

SELECT \* FROM matchruns

WHERE notes LIKE '%Rizwan%'

Data Output		Explain		Messages		Notifications						
 match_id integer	 team_id integer	 innings integer	 player_id integer	 runs integer	 balls integer	 fours integer	 sixes integer	 bowler_id integer	 wicket_id integer	 notes character varying (100)		
1	1001	1	1	2001	14	58	2	0	2210	2 Caught by Mohammad Rizwan		
2	1001	1	1	2003	16	33	1	0	2207	2 Caught by Mohammad Rizwan		
3	1001	1	2	2012	9	20	2	0	2210	2 Caught by Mohammad Rizwan		
4	1002	1	1	2011	32	95	3	0	2202	2 Caught by Mohammad Rizwan		
5	1003	1	1	2009	267	393	34	1	2211	5 Stumped by Mohammad Rizwan		
6	1003	1	1	2001	29	51	3	0	2212	2 Caught by Mohammad Rizwan		
7	1004	1	1	2102	8	7	1	0	2207	2 Caught by Mohammad Rizwan		
8	1004	1	1	2108	2	3	0	0	2312	5 Stumped by Mohammad Rizwan		

## AGGREGATE FUNCTIONS

### COUNT

-- Players with the most wickets in the whole series

```
SELECT p.name, COUNT(*) AS wickets
```

```
FROM matchruns
```

```
JOIN players AS p
```

```
ON matchruns.bowler_id = p.id
```

```
GROUP BY p.name
```

```
ORDER BY wickets DESC
```

(23 records)

	Data Output	Explain	Messages	Notifications
	 <b>name</b> character varying (50)	 <b>wickets</b> bigint		
1	Stuart Broad		13	
2	James Anderson		11	
3	Yasir Shah		11	
4	Shaheen Afridi		7	
5	Shadab Khan		7	
6	Chris Woakes		6	
7	Mohammad Abbas		5	
8	Jofra Archer		4	
9	Imad Wasim		3	
10	Haris Rauf		3	
11	Dom Bess		3	
12	Chris Jordan		3	
13	Naseem Shah		3	
14	Fawad Alam		2	
15	Adil Rashid		2	
16	Ben Stokes		2	
17	Wahab Riaz		2	
18	Tom Curran		2	
19	Sam Curran		1	
20	Iftikhar Ahmed		1	
21	Joe Root		1	

**-- Players with the most wickets in test matches**

```
SELECT p.name, COUNT(*) AS wickets
FROM matchruns
JOIN players AS p
ON matchruns.bowler_id = p.id
WHERE match_id BETWEEN 1001 AND 1003
GROUP BY p.name
ORDER BY wickets DESC
```

	Data Output	Explain	Messages	Notifications
	name character varying (50)	wickets bigint		
1	Stuart Broad	13		
2	James Anderson	11		
3	Yasir Shah	11		
4	Chris Woakes	6		
5	Mohammad Abbas	5		
6	Shaheen Afridi	5		
7	Jofra Archer	4		
8	Dom Bess	3		
9	Naseem Shah	3		
10	Fawad Alam	2		
11	Ben Stokes	2		
12	Shadab Khan	2		
13	Asad Shafiq	1		
14	Sam Curran	1		
15	Joe Root	1		

**-- Players with the most wickets in T20 matches**

```
SELECT p.name, COUNT(*) AS wickets
FROM matchruns
JOIN players AS p
ON matchruns.bowler_id = p.id
WHERE match_id BETWEEN 1004 AND 1006
GROUP BY p.name
ORDER BY wickets DESC
```

28 **TOTN** umpires AS u1

	name	wickets
	character varying (50)	bigint
1	Shadab Khan	5
2	Imad Wasim	3
3	Haris Rauf	3
4	Chris Jordan	3
5	Adil Rashid	2
6	Shaheen Afridi	2
7	Wahab Riaz	2
8	Tom Curran	2
9	Moeen Ali	1
10	Iftikhar Ahmed	1

-- Matches that were umpired by Richard Kettleborough

```
SELECT * FROM match
JOIN umpires AS u1
ON match.umpire1_id = u1.id
JOIN umpires AS u2
ON match.umpire2_id = u2.id
WHERE u1.name = 'Richard Kettleborough'
OR u2.name = 'Richard Kettleborough'
```

42 **Number of ducks made in a match**

id	start_date	end_date	format_id	venue_id	team_a_id	team_b_id	umpire1_id	umpire2_id	winner	potm	id	name	id	name
integer	date	date	integer	integer	integer	integer	integer	integer	integer	integer	integer	character varying (100)	integer	character varying (100)
1	1001 2020-08-05	2020-08-08		1	1	1	2	1	2	1	2013	1 Richard Illingworth	2	Richard Kettleborough
2	1002 2020-08-13	2020-08-17		1	2	1	2	2	3	[null]	2209	2 Richard Kettleborough	3	Michael Gough

--Number of innings played by each player during the series

```
SELECT p.name, COUNT(*) AS innings
FROM matchruns
JOIN players AS p
ON matchruns.player_id = p.id
GROUP BY p.name
```



ORDER BY innings DESC

(46 records)

	Data Output	Explain	Messages	Notifications
	<b>name</b> character varying (50)	<b>innings</b> bigint		
1	Babar Azam	9		
2	Shaheen Afridi	9		
3	Mohammad Rizwan	8		
4	Yasir Shah	6		
5	Chris Woakes	6		
6	Mohammad Abbas	6		
7	Shan Masood	6		
8	James Anderson	6		
9	Dom Sibley	6		
10	Naseem Shah	6		
11	Rory Burns	6		
12	Azhar Ali	6		
13	Abid Ali	6		
14	Stuart Broad	6		
15	Ollie Pope	6		
16	Joe Root	6		
17	Dom Bess	6		
18	Asad Shafiq	6		
19	Jos Buttler	6		
20	Shadab Khan	5		
21	Jofra Archer	4		

--Number of ducks made in a match

SELECT match\_id, p.name, innings, runs, COUNT(\*) AS ducks

FROM matchruns

JOIN players AS p

ON matchruns.player\_id = p.id

WHERE runs= 0

AND wicket\_id != 6

GROUP BY match\_id, innings, p.name, runs

ORDER BY match\_id, COUNT(\*) DESC

51

Data Output Explain Messages Notifications									
	match_id integer		name character varying (50)		innings integer		runs integer		ducks bigint
1	1001		Shan Masood		2		0		1
2	1001		Ben Stokes		1		0		1
3	1001		Azhar Ali		1		0		1
4	1001		Naseem Shah		1		0		1
5	1001		Mohammad Abbas		1		0		1
6	1002		Shaheen Afridi		1		0		1
7	1002		Rory Burns		1		0		1
8	1002		Fawad Alam		1		0		1
9	1003		Naseem Shah		1		0		1
10	1006		Jonny Bairstow		1		0		1

## SUM

-- Players with the most runs during the series

SELECT p.name, SUM(runs) AS total\_runs

FROM matchruns

JOIN players AS p

ON matchruns.player\_id = p.id

WHERE runs IS NOT NULL

GROUP BY p.name

ORDER BY total\_runs DESC

(40 records)

	name character varying (50)	total_runs bigint
1	Zak Crawley	320
2	Babar Azam	272
3	Jos Buttler	265
4	Azhar Ali	210
5	Shan Masood	179
6	Mohammad Rizwan	161
7	Mohammad Hafeez	155
8	Chris Woakes	143
9	Abid Ali	139
10	Tom Banton	137
11	Dom Sibley	98
12	Joe Root	94
13	Eoin Morgan	90
14	Dawid Malan	84
15	Ollie Pope	81
16	Shadab Khan	75
17	Moeen Ali	70
18	Asad Shafiq	67
19	Yasir Shah	63
20	Haider Ali	54
21	Stuart Broad	51

### -- Players with the most runs during test

```

SELECT p.name, SUM(runs) AS total_runs
FROM matchruns
JOIN players AS p
ON matchruns.player_id = p.id
WHERE runs IS NOT NULL
AND match_id BETWEEN 1001 AND 1003
GROUP BY p.name
ORDER BY total_runs DESC

```

	Data Output	Explain	Messages	Notifications
	<div> <div></div> <div>name</div> <div>character varying (50)</div> </div>		<div> <div></div> <div>total_runs</div> <div>bigint</div> </div>	
1	Zak Crawley		320	
2	Jos Buttler		265	
3	Azhar Ali		210	
4	Babar Azam		195	
5	Shan Masood		179	
6	Mohammad Rizwan		161	
7	Chris Woakes		143	
8	Abid Ali		139	
9	Dom Sibley		98	
10	Joe Root		94	
11	Ollie Pope		81	
12	Asad Shafiq		67	
13	Yasir Shah		63	
14	Shadab Khan		60	
15	Stuart Broad		51	
16	Dom Bess		28	
17	Fawad Alam		21	
18	Rory Burns		20	
19	Jofra Archer		16	
20	Shaheen Afridi		14	
21	Ben Stokes		9	

### -- Players with the most runs during T20

```

SELECT p.name, SUM(runs) AS total_runs
FROM matchruns
JOIN players AS p
ON matchruns.player_id = p.id
WHERE runs IS NOT NULL
AND match_id BETWEEN 1004 AND 1006
GROUP BY p.name
ORDER BY total_runs DESC

```

	Data Output	Explain	Messages	Notification
	name character varying (50)		total_runs bigint	
1	Mohammad Hafeez		155	
2	Tom Banton		137	
3	Eoin Morgan		90	
4	Dawid Malan		84	
5	Babar Azam		77	
6	Moeen Ali		70	
7	Haider Ali		54	
8	Jonny Bairstow		46	
9	Sam Billings		39	
10	Fakhar Zaman		37	
11	Shadab Khan		15	
12	Shoaib Malik		14	
13	Lewis Gregory		14	
14	Tom Curran		8	
15	Iftikhar Ahmed		8	
16	Imad Wasim		6	
17	Chris Jordan		3	
18	Adil Rashid		3	

### -- Players with the most runs in an inning

```

SELECT match_id, p.name, SUM(runs) AS total_runs
FROM matchruns
JOIN players AS p
ON matchruns.player_id = p.id
WHERE runs IS NOT NULL
GROUP BY match_id, p.name
ORDER BY total_runs DESC

```

[a Output](#) [Explain](#) [Messages](#) [Notifications](#)

match_id	name	total_runs
integer	character varying (50)	bigint
1003	Zak Crawley	267
1003	Azhar Ali	172
1001	Shan Masood	156
1003	Jos Buttler	152
1001	Jos Buttler	113
1001	Chris Woakes	103
1006	Mohammad Hafeez	86
1003	Babar Azam	74
1001	Babar Azam	74
1002	Mohammad Rizwan	72
1004	Tom Banton	71
1001	Ollie Pope	69
1005	Mohammad Hafeez	69
1005	Eoin Morgan	66
1006	Moeen Ali	61
1002	Abid Ali	60
1001	Shadab Khan	60
1005	Babar Azam	56
1001	Joe Root	56
1005	Dawid Malan	54
1006	Haider Ali	54

**--Number of balls faced in descending order**

SELECT p.name, SUM(balls) AS total\_balls

FROM matchruns

JOIN players AS p

ON matchruns.player\_id = p.id

WHERE runs IS NOT NULL

GROUP BY p.name

ORDER BY total\_balls DESC

	name character varying (50)	total_balls bigint
1	Jos Buttler	533
2	Azhar Ali	531
3	Zak Crawley	492
4	Babar Azam	433
5	Shan Masood	411
5	Abid Ali	363
7	Mohammad Rizwan	336
3	Dom Sibley	264
9	Joe Root	228
0	Chris Woakes	222
1	Ollie Pope	166
2	Asad Shafiq	145
3	Shadab Khan	109
4	Yasir Shah	89
5	Tom Banton	89
6	Mohammad Hafeez	88
7	Fawad Alam	87
8	Dawid Malan	67
9	Shaheen Afridi	56
0	Stuart Broad	52
1	Rory Burns	49

### --Most Boundaries by a player in Test

```

SELECT p.name, SUM(fours + sixes) AS total_boundaries
FROM matchruns
JOIN players AS p
ON matchruns.player_id = p.id
WHERE runs IS NOT NULL
AND match_id BETWEEN 1001 AND 1003
GROUP BY p.name
ORDER BY total_boundaries DESC

```

Data Output Explain Messages Notifications

	<b>name</b> character varying (50)	<b>total_boundaries</b> bigint
1	Zak Crawley	42
2	Jos Buttler	28
3	Azhar Ali	27
4	Babar Azam	23
5	Shan Masood	22
6	Chris Woakes	17
7	Mohammad Rizwan	15
8	Abid Ali	14
9	Joe Root	12
10	Ollie Pope	10
11	Dom Sibley	9
12	Yasir Shah	9
13	Stuart Broad	8
14	Asad Shafiq	5
15	Shadab Khan	5
16	Dom Bess	3
17	Rory Burns	3
18	Shaheen Afridi	2
19	Ben Stokes	2
20	James Anderson	1
21	Jofra Archer	1

**--Most Boundaries by a player in T20**

```
SELECT p.name, SUM(fours + sixes) AS total_boundaries
FROM matchruns
JOIN players AS p
ON matchruns.player_id = p.id
WHERE runs IS NOT NULL
AND match_id BETWEEN 1004 AND 1006
GROUP BY p.name
ORDER BY total_boundaries DESC
```



	Data Output	Explain	Messages	Notifications
	name character varying (50)		total_boundaries bigint	
1	Mohammad Hafeez		19	
2	Tom Banton		18	
3	Eoin Morgan		13	
4	Babar Azam		10	
5	Dawid Malan		10	
6	Moeen Ali		9	
7	Haider Ali		7	
8	Jonny Bairstow		6	
9	Fakhar Zaman		6	
10	Sam Billings		5	
11	Lewis Gregory		2	
12	Shadab Khan		2	
13	Shoaib Malik		1	
14	Tom Curran		1	
15	Adil Rashid		0	
16	Chris Jordan		0	
17	Iftikhar Ahmed		0	
18	Imad Wasim		0	

## MAX

-- Most runs scored in an innings in the series

SELECT p.name, MAX(runs) AS maxruns

FROM matchruns AS m

JOIN players AS p

ON m.player\_id = p.id

WHERE runs IS NOT NULL

GROUP BY p.name

ORDER BY maxruns DESC

	name	maxruns
	character varying (50)	integer
1	Zak Crawley	267
2	Shan Masood	156
3	Jos Buttler	152
4	Azhar Ali	141
5	Mohammad Hafeez	86
6	Chris Woakes	84
7	Mohammad Rizwan	72
8	Tom Banton	71
9	Babar Azam	69
10	Eoin Morgan	66
11	Ollie Pope	62
12	Moeen Ali	61
13	Abid Ali	60
14	Dawid Malan	54
15	Haider Ali	54
16	Shadab Khan	45
17	Jonny Bairstow	44
18	Joe Root	42
19	Dom Sibley	36
20	Fakhar Zaman	36
21	Yasir Shah	33

## JOINS

### --Scorecard

SELECT match\_id, t.name, innings, p1.name, runs, balls, fours, sixes, p2.name, w.dismissal, notes

FROM matchruns 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

(216 records)

match_id	name	innings	name	runs	balls	fours	sixes	name	dismissal	notes
integer	character varying (25)	integer	character varying (50)	integer	integer	integer	integer	character varying (50)	character varying (25)	character varying (100)
1001	Pakistan		1 Shan Masood	156	319	18	2	Stuart Broad	LBW	[null]
1001	Pakistan		1 Abid Ali	16	37	2	0	Jofra Archer	Bowled	[null]
1001	Pakistan		1 Azhar Ali	0	6	0	0	Chris Woakes	LBW	[null]
1001	Pakistan		1 Babar Azam	69	106	11	0	James Anderson	Caught	Caught by Joe Root
1001	Pakistan		1 Asad Shafiq	7	22	1	0	Stuart Broad	Caught	Caught by Ben Stokes
1001	Pakistan		1 Mohammad Rizwan	9	41	0	0	Chris Woakes	Caught	Caught by Jos Buttler
1001	Pakistan		1 Shadab Khan	45	76	3	0	Dom Bess	Caught	Caught by Joe Root
1001	Pakistan		1 Yasir Shah	5	25	0	0	Jofra Archer	LBW	[null]
1001	Pakistan		1 Mohammad Abbas	0	1	0	0	Jofra Archer	Caught	Caught by Joe Root
1001	Pakistan		1 Shaheen Afridi	9	18	2	0	[null]	Not out	[null]
1001	Pakistan		1 Naseem Shah	0	8	0	0	Stuart Broad	Caught	Caught by Jos Buttler
1001	Pakistan		1 [null]	10	[null]	[null]	[null]	[null]	[null]	[null]
1001	England		1 Rory Burns	4	4	1	0	Shaheen Afridi	LBW	[null]
1001	England		1 Dom Sibley	8	8	1	0	Mohammad Abbas	LBW	[null]
1001	England		1 Joe Root	14	58	2	0	Yasir Shah	Caught	Caught by Mohammad Rizwan
1001	England		1 Ben Stokes	0	7	0	0	Mohammad Abbas	Bowled	[null]
1001	England		1 Ollie Pope	62	117	8	0	Naseem Shah	Caught	Caught by Shadab Khan
1001	England		1 Jos Buttler	38	108	5	0	Yasir Shah	Bowled	[null]
1001	England		1 Chris Woakes	19	48	2	0	Yasir Shah	Bowled	[null]
1001	England		1 Dom Bess	1	12	0	0	Yasir Shah	Caught	Caught by Asad Shafiq
1001	England		1 Jofra Archer	16	33	1	0	Shadab Khan	Caught	Caught by Mohammad Rizwan

--Best bowling figures in an innings

SELECT match\_id, p.name, innings, COUNT(\*) AS wickets

FROM matchruns

JOIN players AS p

ON matchruns.bowler\_id = p.id

GROUP BY match\_id, innings, p.name

ORDER BY wickets DESC

Data Output	Explain	Messages	Notifications
match_id integer	name character varying (50)	innings integer	wickets bigint
1	1003 James Anderson	1	5
2	1001 Yasir Shah	2	4
3	1002 Stuart Broad	1	4
4	1001 Yasir Shah	1	4
5	1005 Shadab Khan	1	3
6	1001 Stuart Broad	2	3
7	1001 Jofra Archer	1	3
8	1001 Stuart Broad	1	3
9	1002 James Anderson	1	3
10	1005 Adil Rashid	1	2
11	1001 Ben Stokes	2	2
12	1003 Stuart Broad	1	2
13	1006 Wahab Riaz	1	2
14	1001 Chris Woakes	2	2
15	1004 Imad Wasim	1	2
16	1003 James Anderson	2	2
17	1003 Fawad Alam	1	2
18	1003 Shaheen Afridi	1	2
19	1001 Chris Woakes	1	2
20	1006 Shaheen Afridi	1	2
21	1003 Yasir Shah	1	2









## **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 matchruns

```

Data Output		Explain	Messages	Notifications											
	match_id integer		team_id integer		innings integer		player_id integer		runs integer		balls integer		outcome text		
1	1001		2		1		2208		156		319		Century		
2	1001		2		1		2205		16		37		Howzat!		
3	1001		2		1		2201		0		6		Duck!		
4	1001		2		1		2206		69		106		Half Century		
5	1001		2		1		2211		7		22		Howzat!		
6	1001		2		1		2209		9		41		Howzat!		
7	1001		2		1		2207		45		76		Howzat!		
8	1001		2		1		2210		5		25		Howzat!		
9	1001		2		1		2202		0		1		Duck!		
10	1001		2		1		2203		9		18		Howzat!		
11	1001		2		1		2212		0		8		Duck!		
12	1001		2		1		[null]		10		[null]		Howzat!		
13	1001		1		1		2006		4		4		Howzat!		
14	1001		1		1		2011		8		8		Howzat!		
15	1001		1		1		2001		14		58		Howzat!		
16	1001		1		1		2012		0		7		Duck!		
17	1001		1		1		2010		62		117		Half Century		
18	1001		1		1		2007		38		108		Howzat!		
19	1001		1		1		2013		19		48		Howzat!		
20	1001		1		1		2004		1		12		Howzat!		
21	1001		1		1		2003		16		33		Howzat!		

--Total number of runs made in the tournament so far

SELECT

CASE WHEN team\_id = 1 THEN 'England'

ELSE 'Pakistan'

END AS team,

SUM(runs) AS total\_runs

FROM matchruns

GROUP BY team

ORDER BY total\_runs DESC

28 `SELECT v.name subau`

	team	total_runs
	text	bigint
1	England	1704
2	Pakistan	1576

## SUBQUERIES

--Semi Scorecard for matches taken place at Old Trafford (Semi Join)

SELECT m.match\_id, innings, player\_id , runs, balls, bowler\_id, wicket\_id

FROM matchruns AS m

WHERE match\_id IN (SELECT id FROM match

WHERE venue\_id = 1)

ORDER BY m.match\_id








(120 records)

28 `WHERE p.name = 'Stuart Broad'`

	match_id	innings	player_id	runs	balls	bowler_id	wicket_id
	integer	integer	integer	integer	integer	integer	integer
1	1001	1	2208	156	319	2005	3
2	1001	1	2205	16	37	2003	1
3	1001	1	2201	0	6	2013	3
4	1001	1	2206	69	106	2002	2
5	1001	1	2211	7	22	2005	2
6	1001	1	2209	9	41	2013	2
7	1001	1	2207	45	76	2004	2
8	1001	1	2210	5	25	2003	3
9	1001	1	2202	0	1	2003	2
10	1001	1	2203	9	18	[null]	6
11	1001	1	2212	0	8	2005	2
12	1001	1	[null]	10	[null]	[null]	[null]
13	1001	1	2006	4	4	2203	3
14	1001	1	2011	8	8	2202	3
15	1001	1	2001	14	58	2210	2
16	1001	1	2012	0	7	2202	1
17	1001	1	2010	62	117	2212	2
18	1001	1	2007	38	108	2210	1
19	1001	1	2013	19	48	2210	1
20	1001	1	2004	1	12	2210	2
21	1001	1	2003	16	33	2207	2

**--Semi Scorecard for matches taken place with Richard Illingworth as the Umpire (Semi Join)**

```
SELECT m.match_id, innings, player_id , runs, balls, bowler_id, wicket_id
FROM matchruns AS m
WHERE match_id IN (SELECT id FROM match
WHERE umpire1_id = 1 OR umpire2_id = 1)
ORDER BY m.match_id
```

Data Output		Explain	Messages	Notifications				
	match_id integer	 innings integer	 player_id integer	 runs integer	 balls integer	 bowler_id integer	 wicket_id integer	
1	1001	1	2208	156	319	2005	3	
2	1001	1	2205	16	37	2003	1	
3	1001	1	2201	0	6	2013	3	
4	1001	1	2206	69	106	2002	2	
5	1001	1	2211	7	22	2005	2	
6	1001	1	2209	9	41	2013	2	
7	1001	1	2207	45	76	2004	2	
8	1001	1	2210	5	25	2003	3	
9	1001	1	2202	0	1	2003	2	
10	1001	1	2203	9	18	[null]	6	
11	1001	1	2212	0	8	2005	2	
12	1001	1	[null]	10	[null]	[null]	[null]	
13	1001	1	2006	4	4	2203	3	
14	1001	1	2011	8	8	2202	3	
15	1001	1	2001	14	58	2210	2	
16	1001	1	2012	0	7	2202	1	
17	1001	1	2010	62	117	2212	2	
18	1001	1	2007	38	108	2210	1	
19	1001	1	2013	19	48	2210	1	
20	1001	1	2004	1	12	2210	2	
21	1001	1	2003	16	33	2207	2	

**FROM**

**-- Number of wickets taken per venue (Stuart Broad)**

```
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 matchruns
JOIN players AS p
ON matchruns.bowler_id = p.id
WHERE p.name = 'Stuart Broad'
GROUP BY match_id, p.name) AS subquery
WHERE match.id = subquery.match_id

```

	name	wickets	
	character varying (50)	bigint	
1	Old Trafford	6	
2	The Ageas Bowl	4	
3	The Ageas Bowl	3	

### --Number of runs made per venue (Babar Azam)

```

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 matchruns
JOIN players AS p
ON matchruns.player_id = p.id
WHERE p.name = 'Babar Azam'
GROUP BY match_id, p.name) AS subquery
WHERE match.id = subquery.match_id

```



	name character varying (50)	total_runs bigint
1	Old Trafford	74
2	The Ageas Bowl	47
3	The Ageas Bowl	74
4	Old Trafford	[null]
5	Old Trafford	56
6	Old Trafford	21

### --Players who score more than 100 runs in the series

```
SELECT p.name, runs, balls, fours, sixes FROM
(SELECT * FROM matchruns WHERE runs > 100) a
LEFT JOIN players AS p
ON a.player_id = p.id
```

	name character varying (50)	runs integer	balls integer	fours integer	sixes integer
1	Jos Buttler	152	311	13	2
2	Zak Crawley	267	393	34	1
3	Azhar Ali	141	272	21	0
4	Shan Masood	156	319	18	2

### WHERE

#### -- Show all scores where Pakistan won

```
SELECT * FROM matchruns
WHERE match_id
IN (SELECT id FROM match WHERE winner = 2)
```

Data Output		Explain		Messages		Notifications													
match_id integer	team_id integer	innings integer	player_id integer	runs integer	balls integer	fours integer	sixes integer	bowler_id integer	wicket_id integer	notes character varying (100)									
	1006	2	1	2301	21	18	3	0	2106	1 [null]									
	1006	2	1	2313	1	3	0	0	2102	1 [null]									
	1006	2	1	2305	54	33	5	2	2109	1 [null]									
	1006	2	1	2306	86	52	4	6	[null]	6 [null]									
	1006	2	1	2207	15	11	2	0	2109	2 Caught by Tom Curran									
	1006	2	1	2312	6	4	0	0	[null]	6 [null]									
	1006	2	1	2308	[null]	[null]	[null]	[null]	[null]	[null] Innings close at 190-4									
	1006	2	1	2302	[null]	[null]	[null]	[null]	[null]	[null] Innings close at 190-4									
	1006	2	1	2309	[null]	[null]	[null]	[null]	[null]	[null] Innings close at 190-4									
	1006	2	1	2203	[null]	[null]	[null]	[null]	[null]	[null] Innings close at 190-4									
	1006	2	1	2310	[null]	[null]	[null]	[null]	[null]	[null] Innings close at 190-4									
	1006	2	1	[null]	7	[null]	[null]	[null]	[null]	[null] [null]									
	1006	1	1	2104	46	31	8	0	2310	3 [null]									
	1006	1	1	2103	0	3	0	0	2203	1 [null]									
	1006	1	1	2111	7	8	1	0	2312	2 Caught by Fakhar Zaman									
	1006	1	1	2101	10	5	0	1	[null]	4 [null]									
	1006	1	1	2102	61	33	4	4	2309	2 Caught by Wahab Riaz									
	1006	1	1	2105	26	24	2	1	2309	2 Caught by Imad Wasim									
	1006	1	1	2108	12	8	2	0	2203	1 [null]									
	1006	1	1	2109	1	2	0	0	[null]	4 [null]									
	1006	1	1	2106	8	5	0	1	[null]	6 [null]									

--Show all LBW dismissals

SELECT \* FROM matchruns

WHERE wicket\_id

IN (SELECT id FROM wickets WHERE dismissal = 'LBW')

Data Output		Explain		Messages		Notifications				
match_id integer	team_id integer	innings integer	player_id integer	runs integer	balls integer	fours integer	sixes integer	bowler_id integer	wicket_id integer	notes character varying (100)
1	1001	2	1	2208	156	319	18	2	2005	3 [null]
2	1001	2	1	2201	0	6	0	0	2013	3 [null]
3	1001	2	1	2210	5	25	0	0	2003	3 [null]
4	1001	1	1	2006	4	4	1	0	2203	3 [null]
5	1001	1	1	2011	8	8	1	0	2202	3 [null]
6	1001	1	1	2002	7	11	1	0	2207	3 [null]
7	1001	2	2	2201	18	54	3	0	2013	3 [null]
8	1001	2	2	2209	27	43	2	0	2012	3 [null]
9	1001	2	2	2207	15	22	2	0	2005	3 [null]
10	1001	1	2	2006	10	28	1	0	2202	3 [null]
11	1001	1	2	2007	75	101	7	1	2210	3 [null]
12	1001	1	2	2005	7	9	1	0	2210	3 [null]
13	1002	2	1	2208	1	5	0	0	2002	3 [null]
14	1002	2	1	2204	0	4	0	0	2013	3 [null]
15	1002	2	1	2202	2	20	0	0	2005	3 [null]
16	1002	1	1	2009	53	99	7	0	2202	3 [null]
17	1002	1	1	2010	9	16	1	0	2210	3 [null]
18	1003	1	1	2011	22	47	1	0	2210	3 [null]
19	1003	2	1	2208	4	10	0	0	2002	3 [null]
20	1003	2	1	2206	11	26	1	0	2002	3 [null]
21	1003	2	2	2208	18	66	2	0	2005	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')
```

Data Output		Explain		Messages		Notifications								
id	start_date	end_date	format_id	venue_id	teama_id	teamb_id	umpire1_id	umpire2_id	winner	potm				
[PK] integer	date	date	integer	integer	integer	integer	integer	integer	integer	integer	integer			
1	1001	2020-08-05	2020-08-08		1	1	1	2	1	2	1	2013		
2	1004	2020-08-28	2020-08-28		2	1	1	2	4	5	[null]	[null]		
3	1005	2020-08-30	2020-08-30		2	1	1	2	7	6	1	2101		
4	1006	2020-09-01	2020-09-01		2	1	1	2	5	6	2	2306		

### -- Total number of runs made by each team throughout

```
SELECT teams.name AS country,
```

```
(SELECT SUM(runs) FROM matchruns
```

```
WHERE teams.id = matchruns.team_id) AS runs
```

```
FROM teams
```

```
ORDER by runs DESC
```

	<b>country</b> character varying (25)	<b>runs</b> bigint
1	England	1704
2	Pakistan	1576

### --Runs made by each player compared to overall

```
SELECT p.name, f.format, SUM(runs) AS total_runs_per_test,
```

```
(SELECT SUM(runs) FROM matchruns) AS overall_AVG
```

```
FROM matchruns
```

```
JOIN players AS p
```

```
ON matchruns.player_id = p.id
```

```
JOIN match
```

```
ON matchruns.match_id = match.id
```

JOIN formats AS F





ON match.format\_id = f.id

WHERE runs IS NOT NULL

GROUP BY p.name, f.format

ORDER BY total\_runs\_per\_test DESC

[Data Output](#) [Explain](#) [Messages](#) [Notifications](#)

	 name character varying (50)	 format character varying (10)	 total_runs_per_test bigint	 overall_avg bigint
1	Zak Crawley	Test	320	3280
2	Jos Buttler	Test	265	3280
3	Azhar Ali	Test	210	3280
4	Babar Azam	Test	195	3280
5	Shan Masood	Test	179	3280
6	Mohammad Rizwan	Test	161	3280
7	Mohammad Hafeez	T20	155	3280
8	Chris Woakes	Test	143	3280
9	Abid Ali	Test	139	3280
10	Tom Banton	T20	137	3280
11	Dom Sibley	Test	98	3280
12	Joe Root	Test	94	3280
13	Eoin Morgan	T20	90	3280
14	Dawid Malan	T20	84	3280
15	Ollie Pope	Test	81	3280
16	Babar Azam	T20	77	3280
17	Moeen Ali	T20	70	3280
18	Asad Shafiq	Test	67	3280
19	Yasir Shah	Test	63	3280
20	Shadab Khan	Test	60	3280
21	Haider Ali	T20	54	3280

**-- Run AVG from each stadium compared to overall**

SELECT v.name AS venue, f.format AS format, ROUND(AVG(runs),2) AS Test\_AVG,  
(SELECT ROUND(AVG(runs), 2) FROM matchruns) AS overall\_AVG

FROM matchruns

JOIN match AS m

ON matchruns.match\_id = m.id

JOIN match

ON matchruns.match\_id = match.id

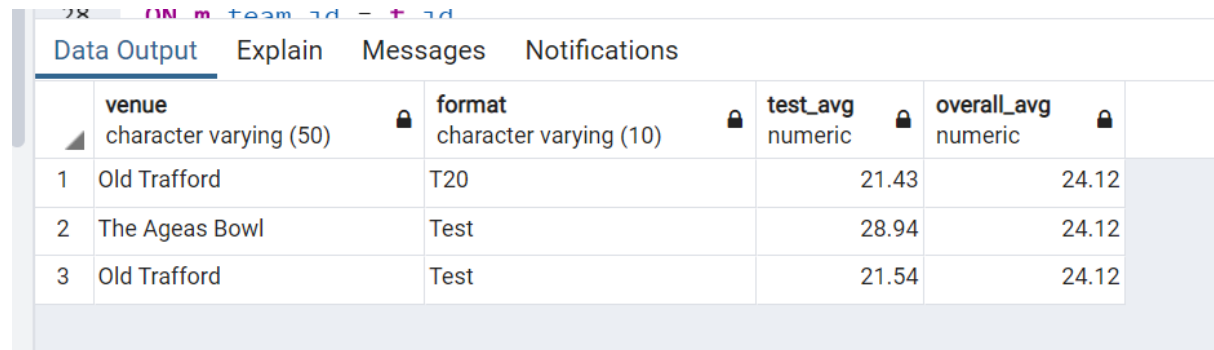
JOIN formats AS f

ON match.format\_id = f.id

JOIN venues AS v

ON m.venue\_id = v.id

GROUP BY v.name, f.format



The screenshot shows a SQL query editor with a query window at the top and a results window below. The query window contains the following SQL code:

```
28 SELECT v.name AS venue, f.format, SUM(runs) AS test_avg, SUM(runs) AS overall_avg
FROM matchruns AS m
JOIN match AS m1 ON m1.id = m.match_id
JOIN formats AS f ON m1.format_id = f.id
JOIN venues AS v ON m1.venue_id = v.id
GROUP BY v.name, f.format
```

The results window shows the following table:

	venue character varying (50)	format character varying (10)	test_avg numeric	overall_avg numeric
1	Old Trafford	T20	21.43	24.12
2	The Ageas Bowl	Test	28.94	24.12
3	Old Trafford	Test	21.54	24.12

**-- Number of runs scored by each team specifically via match and innings**

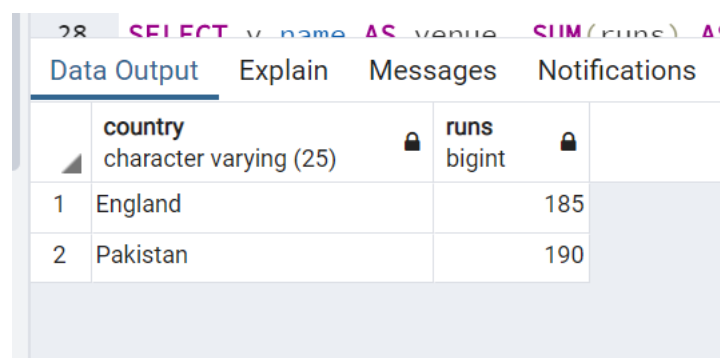
SELECT teams.name AS country,

(SELECT SUM(runs) FROM matchruns AS m

WHERE teams.id = m.team\_id AND match\_id= 1006 AND innings= 1) AS runs

FROM teams

ORDER by runs



The screenshot shows a SQL query editor with a query window at the top and a results window below. The query window contains the following SQL code:

```
28 SELECT t.name AS country, SUM(runs) AS runs
FROM matchruns AS m
JOIN teams AS t ON m.team_id = t.id
WHERE m.match_id = 1006 AND m.innings = 1
GROUP BY t.name
```

The results window shows the following table:

	country character varying (25)	runs bigint
1	England	185
2	Pakistan	190

**--Number of runs made by each team vs overall**

SELECT t.name AS country, SUM(runs) AS team\_runs,

(SELECT SUM(runs) FROM matchruns) AS runs

FROM matchruns AS m

```

JOIN teams AS t
ON m.team_id = t.id
GROUP BY t.name
ORDER by team_runs DESC

```

	Data Output	Explain	Messages	Notifications
	country character varying (25)	team_runs bigint	runs bigint	
1	England	1704	3280	
2	Pakistan	1576	3280	

### -- Number of runs made by each stadium

```

SELECT v.name,
(SELECT SUM(runs) FROM matchruns
WHERE m.id = matchruns.match_id) AS total_runs
FROM match AS m
JOIN venues AS v
ON m.venue_id = v.id
ORDER BY total_runs DESC

```

	Data Output	Explain	Messages	Notification
	name character varying (50)	total_runs bigint		
1	The Ageas Bowl	1043		
2	Old Trafford	991		
3	Old Trafford	394		
4	Old Trafford	375		
5	The Ageas Bowl	346		
6	Old Trafford	131		

### OR

```

SELECT v.name AS venue, SUM(runs) AS runs
FROM matchruns m

```

```

LEFT JOIN match
ON m.match_id = match.id
LEFT JOIN venues v
ON match.venue_id = v.id
GROUP BY v.name
ORDER BY runs DESC

```

	venue	runs
	character varying (50)	bigint
1	Old Trafford	1891
2	The Ageas Bowl	1389

## **COMMON TABLE EXPRESSIONS**

**--Number of players who reach half-centuries in each venue**

```

WITH hc AS(
SELECT match_id,
FROM matchruns WHERE runs >= 50)
SELECT v.name, COUNT(h.match_id) AS half_century
FROM match AS m
LEFT JOIN venues AS v
ON m.venue_id = v.id
JOIN hc AS h
ON h.match_id = m.id
GROUP BY v.name
ORDER BY half_century

```

	name	half_century
	character varying (50)	bigint
1	The Ageas Bowl	8
2	Old Trafford	13

```

WITH hc AS(
SELECT match_id
FROM matchruns WHERE runs >= 100)
SELECT v.name, COUNT(h.match_id) AS century
FROM match AS m
LEFT JOIN venues AS v
ON m.venue_id = v.id
JOIN hc AS h
ON h.match_id = m.id
GROUP BY v.name
ORDER BY century

```

	Data Output	Explain	Messages	Notification
	name character varying (50)		century bigint	
1	Old Trafford		1	
2	The Ageas Bowl		3	

## WINDOW FUNCTIONS

### **RANKINGS**

**--Rankings of Players scored the most runs in the Championship**

```

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

```



	player character varying (50)	sum bigint	total_runs bigint
1	Zak Crawley	320	1
2	Babar Azam	272	2
3	Jos Buttler	265	3
4	Azhar Ali	210	4
5	Shan Masood	179	5
6	[null]	168	6
7	Mohammad Rizwan	161	7
8	Mohammad Hafeez	155	8
9	Chris Woakes	143	9
10	Abid Ali	139	10
11	Tom Banton	137	11
12	Dom Sibley	98	12
13	Joe Root	94	13
14	Eoin Morgan	90	14
15	Dawid Malan	84	15
16	Ollie Pope	81	16
17	Shadab Khan	75	17
18	Moeen Ali	70	18
19	Asad Shafiq	67	19
20	Yasir Shah	63	20
21	Haider Ali	54	21

### --Number of balls bowled by each venue

```

SELECT v.name, SUM(balls) AS total_balls,
RANK() OVER(ORDER BY SUM(balls)DESC)
FROM matchruns AS m
LEFT JOIN match
ON m.match_id = match.id
LEFT JOIN venues AS v
ON match.venue_id = v.id
GROUP BY v.name

```

	Data Output	Explain	Messages	Notifications
	name character varying (50)	total_balls bigint	rank bigint	
1	The Ageas Bowl	2805	1	
2	Old Trafford	2450	2	

### --Number of balls bowled by each venue and format

```

SELECT v.name, f.format, SUM(balls) AS total_balls,
RANK() OVER(ORDER BY SUM(balls)DESC)
FROM matchruns AS m
LEFT JOIN match
ON m.match_id = match.id
LEFT JOIN venues AS v
ON match.venue_id = v.id
LEFT JOIN formats AS f
ON match.format_id = f.id
GROUP BY v.name, f.format

```

	Data Output	Explain	Messages	Notifications
	name character varying (50)	format character varying (10)	total_balls bigint	rank bigint
	The Ageas Bowl	Test	2805	1
	Old Trafford	Test	1872	2
	Old Trafford	T20	578	3

### SLIDING FUNCTIONS

#### --Running total of runs

```

SELECT match_id, t.name AS team, p.name AS players, runs, innings,
SUM(runs) OVER(ORDER BY match_id ROWS BETWEEN UNBOUNDED PRECEDING
AND CURRENT ROW) AS running_total
FROM matchruns AS m
LEFT JOIN teams AS t
ON m.team_id = t.id
LEFT JOIN players AS p

```

ON m.player\_id = p.id

	match_id integer	team character varying (25)	players character varying (50)	runs integer	innings integer	running_total bigint
1	1001	Pakistan	Shan Masood	156	1	156
2	1001	Pakistan	Abid Ali	16	1	172
3	1001	Pakistan	Azhar Ali	0	1	172
4	1001	Pakistan	Babar Azam	69	1	241
5	1001	Pakistan	Asad Shafiq	7	1	248
6	1001	Pakistan	Mohammad Rizwan	9	1	257
7	1001	Pakistan	Shadab Khan	45	1	302
8	1001	Pakistan	Yasir Shah	5	1	307
9	1001	Pakistan	Mohammad Abbas	0	1	307
10	1001	Pakistan	Shaheen Afridi	9	1	316
11	1001	Pakistan	Naseem Shah	0	1	316
12	1001	Pakistan	[null]	10	1	326
13	1001	England	Rory Burns	4	1	330
14	1001	England	Dom Sibley	8	1	338
15	1001	England	Joe Root	14	1	352
16	1001	England	Ben Stokes	0	1	352
17	1001	England	Ollie Pope	62	1	414
18	1001	England	Jos Buttler	38	1	452
19	1001	England	Chris Woakes	19	1	471
20	1001	England	Dom Bess	1	1	472
21	1001	England	Jofra Archer	16	1	488

### Running average of runs

SELECT match\_id, t.name AS team, p.name AS players, runs, innings,

AVG(runs) OVER(ORDER BY match\_id ROWS BETWEEN UNBOUNDED PRECEDING  
AND CURRENT ROW) AS running\_avg







FROM matchruns AS m

LEFT JOIN teams AS t

ON m.team\_id = t.id

LEFT JOIN players AS p

ON m.player\_id = p.id

ta Output		Explain	Messages	Notifications		
	match_id integer	 team character varying (25)	 players character varying (50)	 runs integer	 innings integer	 running_avg numeric
	1001	Pakistan	Shan Masood	156	1	156.0000000000000000
	1001	Pakistan	Abid Ali	16	1	86.0000000000000000
	1001	Pakistan	Azhar Ali	0	1	57.3333333333333333
	1001	Pakistan	Babar Azam	69	1	60.2500000000000000
	1001	Pakistan	Asad Shafiq	7	1	49.6000000000000000
	1001	Pakistan	Mohammad Rizwan	9	1	42.8333333333333333
	1001	Pakistan	Shadab Khan	45	1	43.1428571428571429
	1001	Pakistan	Yasir Shah	5	1	38.3750000000000000
	1001	Pakistan	Mohammad Abbas	0	1	34.1111111111111111
)	1001	Pakistan	Shaheen Afridi	9	1	31.6000000000000000
	1001	Pakistan	Naseem Shah	0	1	28.7272727272727273
2	1001	Pakistan	[null]	10	1	27.1666666666666667
}	1001	England	Rory Burns	4	1	25.3846153846153846
!	1001	England	Dom Sibley	8	1	24.1428571428571429
5	1001	England	Joe Root	14	1	23.4666666666666667
}	1001	England	Ben Stokes	0	1	22.0000000000000000
'	1001	England	Ollie Pope	62	1	24.3529411764705882
}	1001	England	Jos Buttler	38	1	25.1111111111111111
}	1001	England	Chris Woakes	19	1	24.7894736842105263
)	1001	England	Dom Bess	1	1	23.6000000000000000
	1001	England	Jofra Archer	16	1	23.2380952380952381

### --Number of Overs played in a game

```

SELECT match_id, p.name AS player, runs, balls, SUM(balls/6.0) AS OVERS
FROM matchruns
JOIN players AS p
ON matchruns.player_id = p.id
WHERE runs IS NOT NULL
GROUP BY match_id, p.name, runs, balls
ORDER BY SUM(runs/6.0) DESC

```

	match_id integer	player character varying (50)	runs integer	balls integer	overs numeric
1	1003	Zak Crawley	267	393	65.5000000000000000
2	1001	Shan Masood	156	319	53.1666666666666667
3	1003	Jos Buttler	152	311	51.8333333333333333
4	1003	Azhar Ali	141	272	45.3333333333333333
5	1006	Mohammad Hafeez	86	52	8.6666666666666667
6	1001	Chris Woakes	84	120	20.0000000000000000
7	1001	Jos Buttler	75	101	16.8333333333333333
8	1002	Mohammad Rizwan	72	139	23.1666666666666667
9	1004	Tom Banton	71	42	7.0000000000000000
10	1001	Babar Azam	69	106	17.6666666666666667
11	1005	Mohammad Hafeez	69	36	6.0000000000000000
12	1005	Eoin Morgan	66	33	5.5000000000000000
13	1003	Babar Azam	63	92	15.3333333333333333
14	1001	Ollie Pope	62	117	19.5000000000000000
15	1006	Moeen Ali	61	33	5.5000000000000000
16	1002	Abid Ali	60	111	18.5000000000000000
17	1005	Babar Azam	56	44	7.3333333333333333
18	1006	Haider Ali	54	33	5.5000000000000000
19	1005	Dawid Malan	54	36	6.0000000000000000
20	1003	Mohammad Rizwan	53	113	18.8333333333333333
21	1002	Zak Crawley	53	99	16.5000000000000000

### --Run ranges by a player (Mohammad Rizwan)

WITH bins AS (

SELECT generate\_series(0, 90, 10) AS lower,

generate\_series(10, 100, 10) AS upper),

runs AS (SELECT player\_id, runs FROM matchruns)

SELECT lower, upper, count(runs)

FROM bins

JOIN runs

ON runs >= lower

AND runs < upper





WHERE player\_id = 2209

GROUP BY lower, upper

ORDER BY lower

### -- Number of balls within a range

```
WITH bins AS (  
  SELECT generate_series (0, 600, 50) AS lower,  
         generate_series (50, 650, 50) AS upper,  
         balls AS (  
           SELECT balls FROM matchruns)  
         SELECT lower, upper, COUNT(*)  
         FROM bins  
         JOIN balls  
         ON balls >= lower  
         AND balls < upper  
         GROUP BY lower, upper  
         ORDER BY lower
```

	Data Output	Explain	Messages	Notificatic
	 lower integer	 upper integer	 count bigint	
1	0	10	1	
2	20	30	1	
3	50	60	1	
4	70	80	1	

### --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 median_runs  
FROM matchruns  
LEFT JOIN match AS m  
ON matchruns.match_id = m.id  
LEFT JOIN venues AS v  
ON m.venue_id = v.id
```

GROUP BY v.name

ORDER BY mean

20 SELECT p.name AS player, ROUND(AVG(runs), 2)

	venue	mean	median_runs
	character varying (50)	numeric	integer
1	Old Trafford	21.49	10
2	The Ageas Bowl	28.94	13

**-- Mean and Median of runs made per player**

SELECT p.name AS player, ROUND(AVG(runs), 2) AS mean, percentile\_disc(0.5)

WITHIN GROUP (ORDER BY runs) AS median\_runs

FROM matchruns AS m

LEFT JOIN players AS p

ON m.player\_id = p.id

WHERE runs IS NOT NULL

GROUP BY p.name

ORDER BY mean

	Data Output	Explain	Messages	Notifications
	player character varying (50)	mean numeric	median_runs integer	
1	Naseem Shah	1.25	0	
2	Mohammad Abbas	1.50	1	
3	Chris Jordan	1.50	1	
4	Adil Rashid	3.00	3	
5	Shaheen Afridi	3.50	2	
6	Ben Stokes	4.50	0	
7	Lewis Gregory	4.67	2	
8	Rory Burns	5.00	4	
9	Imad Wasim	6.00	6	
10	James Anderson	7.00	7	
11	Fawad Alam	7.00	0	
12	Tom Curran	8.00	8	
13	Iftikhar Ahmed	8.00	8	
14	Dom Bess	9.33	1	
15	[null]	12.00	11	
16	Sam Billings	13.00	10	
17	Asad Shafiq	13.40	7	
18	Shoaib Malik	14.00	14	
19	Jonny Bairstow	15.33	2	
20	Yasir Shah	15.75	5	
21	Jofra Archer	16.00	16	

### -- Mean and Median of fours made per player

```

SELECT p.name AS player, ROUND(AVG(fours), 2) AS mean, percentile_disc(0.5)
WITHIN GROUP (ORDER BY fours) AS median_runs
FROM matchruns AS m
LEFT JOIN players AS p
ON m.player_id = p.id
WHERE fours IS NOT NULL
GROUP BY p.name
ORDER BY mean DESC

```



	player character varying (50)	mean numeric	median_runs integer
1	Zak Crawley	20.50	7
2	Jos Buttler	6.25	5
3	Chris Woakes	5.67	5
4	Azhar Ali	5.40	2
5	Haider Ali	5.00	5
6	Babar Azam	4.71	3
7	Mohammad Hafeez	4.50	4
8	Shan Masood	4.00	0
9	Tom Banton	4.00	4
10	Mohammad Rizwan	3.50	2
11	Dawid Malan	3.00	2
12	Joe Root	3.00	2
13	Abid Ali	2.80	2
14	Fakhar Zaman	2.50	0
15	Ollie Pope	2.50	1
16	Eoin Morgan	2.33	1
17	Dom Sibley	2.25	1
18	Yasir Shah	2.00	1
19	Shadab Khan	1.75	2
20	Moeen Ali	1.67	1
21	Stuart Broad	1.67	1

## **MISCELLANEOUS**

### **--StrikeRates for each player**

```
SELECT match_id, team_id, player_id, runs, balls, (runs/NULLIF(balls, 0.0)*100) AS SR
FROM matchruns
```

	match_id integer	team_id integer	player_id integer	runs integer	balls integer	sr numeric
1	1001	2	2208	156	319	48.90282131661442006300
2	1001	2	2205	16	37	43.24324324324324324300
3	1001	2	2201	0	6	0.00000000000000000000
4	1001	2	2206	69	106	65.09433962264150943400
5	1001	2	2211	7	22	31.81818181818181818200
6	1001	2	2209	9	41	21.95121951219512195100
7	1001	2	2207	45	76	59.21052631578947368400
8	1001	2	2210	5	25	20.00000000000000000000
9	1001	2	2202	0	1	0.00000000000000000000
10	1001	2	2203	9	18	50.00000000000000000000
11	1001	2	2212	0	8	0.00000000000000000000
12	1001	2	[null]	10	[null]	[null]
13	1001	1	2006	4	4	100.00000000000000000000
14	1001	1	2011	8	8	100.00000000000000000000
15	1001	1	2001	14	58	24.13793103448275862100
16	1001	1	2012	0	7	0.00000000000000000000
17	1001	1	2010	62	117	52.99145299145299145300
18	1001	1	2007	38	108	35.18518518518518518500
19	1001	1	2013	19	48	39.58333333333333333300
20	1001	1	2004	1	12	8.33333333333333333300
21	1001	1	2003	16	33	48.48484848484848484800

### --StrikeRates for each player

```

SELECT p.name, (SUM(runs)/NULLIF(SUM(balls), 0.0)* 100) AS SR
FROM matchruns 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

```

Data Output Explain Messages Notifications

	name character varying (50)	sr numeric
1	Eoin Morgan	187.5000000000000000
2	Mohammad Hafeez	176.1363636363636400
3	Moeen Ali	166.6666666666666700
4	Jonny Bairstow	164.2857142857142900
5	Haider Ali	163.6363636363636400
6	Tom Curran	160.0000000000000000
7	Tom Banton	153.9325842696629200
8	Imad Wasim	150.0000000000000000
9	Fakhar Zaman	148.0000000000000000
10	Shoaib Malik	127.2727272727272700
11	Lewis Gregory	127.2727272727272700
12	Dawid Malan	125.3731343283582100
13	Sam Billings	114.7058823529411800
14	Adil Rashid	100.0000000000000000
15	Stuart Broad	98.07692307692307692300
16	Iftikhar Ahmed	88.8888888888888888900
17	Yasir Shah	70.78651685393258427000
18	Shadab Khan	68.80733944954128440400
19	Dom Bess	66.6666666666666666700
20	Zak Crawley	65.04065040650406504100
21	Chris Woakes	64.41441441441441441400




### --Number of Player of the Match Awards

```

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

```

[Data Output](#) [Explain](#) [Messages](#) [Notifica](#)

	 <b>playerofthematch</b> character varying (50) 	<b>count</b> bigint 	
1	Zak Crawley	1	
2	Mohammad Hafeez	1	
3	Eoin Morgan	1	
4	Mohammad Rizwan	1	
5	Chris Woakes	1	