

## SQL 150 QUESTIONS IND VS SA 1<sup>ST</sup> T20 PROJECT

### SELECT

- 1) Find the top 5 Indian batsmen by runs

```
select player_name ,Score from india_bat ORDER BY Score DESC LIMIT 5;
```

Result Grid	Filter Rows:
player_name	Score
Samson	103
Tilak Varma	33
Suryakumar Yadav	21
Rinku Singh	11
Abhishek Sharma	7

- 2) Find the South African bowler with the best economy rate

```
SELECT player_name, Economy as Best_Economy from southafrica_bowl where Economy =  
(select min(Economy) from southafrica_bowl);
```

Result Grid	Filter Rows:
player_name	Best_economy
Marco Jansen	6

- 3) Find the total runs scored by India in each over of a specific match

```
select overs,Runs from innings_over_by_over where Innigs=1;
```

overs	Runs
1	2
2	10
3	12
4	10
5	15
6	7
7	5
8	14
9	15
10	9
11	12
12	13
13	18
14	20
15	5
16	8
17	7
18	3
19	13
20	4

- 5) Find the average runs scored by Indian batsmen

```
with AVG as (select avg(Score) as avgindia from india_bat group by Score)
select sum(avgindia) from AVG;
```

Result Grid	Filter
sum(avgindia)	
183.0000	

- 6) Find the matches played at a specific venue

```
select Match_venue from match_summary;
```

Result Grid	Filter
Match_venue	
Kingsmead Durban	

- 7) Find the highest individual score by a South African batsman

```
select Score ,player_name from southafrica_bat ORDER BY Score desc LIMIT 1;
```

Score	player_name
25	Heinrich Klaasen

- 8) Find the number of wickets taken by Indian bowlers in a specific match

```
select sum(Wickets) as wicketstaken from india_bowl;
```

wicketstaken
9

- 9) Find the players who scored a century in both teams

```
select Score,player_name from southafrica_bat where Score=100
INTERSECT
select Score,player_name from india_bat where Score=100;
```

Result Grid	Filter
Score	player_name

10) Find the total extras conceded in a match

```
SELECT SUM(Extrascore) from extrascores;
```

	extrascore
▶	14

## INSERT

11) Insert a new match summary

```
INSERT INTO match_summary values
('Tilak varma','India','2024-11-15 08:30:00','Wanderers stadium','India','opt to bat');
```

Result Grid

Filter Rows:

Export:

Wrap Cell Content:

	player_of_match	Toss	Match_date	Match_venue	Twinner	tchoosen
▶	Sanju Samson	South Africa	2024-11-08 08:30:00	Kingsmead Durban	South Africa	opt to bowl
	Tilak varma	India	2024-11-15 08:30:00	Wanderers stadium	India	opt to bat

12) Insert a new Indian batsman's performance

```
insert into india_bat values
(18,'RHB',99,45,8,7,200,'not out',null,'Virat kohli');
```

	Jno	Batsmen_style	Score	Balls	Fours	Sixes	Strike_rate	wicket_status	Wicketby	player_name
▶	2	LHB	5	4	1	0	125	not out	null	Arshdeep Singh
	4	LHB	7	8	1	0	87	out	Gerald Coetzee	Abhishek Sharma
	9	LHB	33	18	3	2	183	out	Maharaj	Tilak Varma
	14	RHB	103	50	7	10	214	out	Nqabayomzi Peter	Samson
	18	RHB	99	45	8	7	200	not out	NULL	Virat kohli
	20	LHB	7	7	1	0	100	out	Marco Jansen	Axar Patel
	33	RHB	2	6	0	0	33	out	Gerald Coetzee	Hardik Pandya
	35	LHB	11	10	2	0	110	out	Gerald Coetzee	Rinku Singh
	56	RHB	1	3	0	0	33	Run_out	Klaasen/Marco Jansen	Ravi Bishnoi
	63	RHB	21	17	2	1	123	out	Patrick Kruger	Suryakumar Yadav
•	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

13) Insert a new South African bowler's performance

```
INSERT INTO southafrica_bowl
values(4,0,58,1,14,'Lutho Sipamla',0,1);
```

	Overs	Maiden	Runs	Wickets	Economy	Jno	Player_name	NB	WD
▶	4	0	24	1	6	36	Marco Jansen	1	1
	1	0	10	0	10	94	Aiden Markram	0	0
	4	0	34	1	8	16	Keshav Maharaj	0	0
	4	0	37	3	9	5	Gerald Coetzee	0	0
	3	0	35	1	11	90	Nqabayomi Peter	0	0
	2	0	35	1	17	48	Patrick Kruger	2	3
	2	0	27	0	13	22	Andile Simelane	0	1
	4	0	58	1	14	20	Lutho Sipamla	0	1

14) Insert an extra run if the total runs of a team exceed a certain value

```
Insert into extrascores (Team,Extrascore,wides) select 'India',10,10 WHERE
(SELECT SUM(Score) from india_bat) > 180;
```

Team	Extrascore	wides	No_balls	Leg_bye
▶ India	6	6	0	0
Southafrica	8	5	3	0
India	10	10	NULL	NULL

15) Insert a new over-by-over record if a specific over has a high run rate

```
INSERT INTO innings_over_by_over (B1, B2, Runs, 4s, 6s,overs,wickets)
SELECT 4, 6, 10, 1, 1,21,5
WHERE (SELECT AVG(Runs) FROM innings_over_by_over) > 5;
```

16	1	0	1	48	6	6	0	NULL	15	0	2	0	Gerald Coetzee
17	1	48	48	1	0	2	99	0	6	0	0	1	Nqabayomi Peter
18	0	1	4	1	99	NULL	NULL	NULL	6	1	0	1	Nqabayomi Peter
21	4	6	NULL	NULL	NULL	NULL	NULL	NULL	10	1	1	5	NULL

16) Insert multiple Indian batsmen's performances in a single query

```
Insert into india_bat values(18,'RHB',99,45,10,6,200,'NOT OUT',NULL,'VIRAT KOHLI'),
(45,'RHB',99,56,12,4,200,'NOT OUT',NULL,'ROHIT SHARMA');
```

Result Grid										
		Filter Rows:		Edit:		Export/Import:		Wrap Cell Content:		
	Jno	Batsmen_style	Score	Balls	Fours	Sixes	Strike_rate	wicket_status	Wicketby	player_name
▶	2	LHB	5	4	1	0	125	not out	null	Arshdeep Singh
	4	LHB	7	8	1	0	87	out	Gerald Coetzee	Abhishek Sharma
	9	LHB	33	18	3	2	183	out	Maharaj	Tilak Varma
	14	RHB	103	50	7	10	214	out	Nqabayomi Peter	Samson
	18	RHB	99	45	10	6	200	NOT OUT	NULL	VIRAT KOHLI
	20	LHB	7	7	1	0	100	out	Marco Jansen	Axar Patel
	33	RHB	2	6	0	0	33	out	Gerald Coetzee	Hardik Pandya
	35	LHB	11	10	2	0	110	out	Gerald Coetzee	Rinku Singh
	45	RHB	99	56	12	4	200	NOT OUT	NULL	ROHIT SHARMA
	56	RHB	1	3	0	0	33	Run_out	Klaasen/Marco Jansen	Ravi Bishnoi
	63	RHB	21	17	2	1	123	out	Patrick Kruger	Suryakumar Yadav
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

17) Insert a new South African batsman's performance with default values for fours and sixes

```
Insert into southafrica_bat (Jno,Batsmen_style,Score,Balls,Strike_rate,wicket_status,wicketby,player_name)
VALUES (25,'RHB',3,4,75,'not out','null','Lutho Sipamla');
```

Result Grid										
		Filter Rows:		Edit:		Export/Import:		Wrap Cell Content:		
	Jno	Batsmen_style	Score	Balls	Fours	Sixes	Strike_rate	wicket_status	wicketby	player_name
▶	5	RHB	23	11	0	3	203	out	Suryakumar Yadav	Gerald Coetzee
	10	LHB	18	22	2	1	81	out	Varun Chakaravarthy	David Miller
	16	RHB	5	9	0	0	55	out	Avesh Khan	Keshav Maharaj
	22	RHB	6	4	0	1	150	out	Ravi Bishnoi	Andile Simelane
	25	RHB	3	4	0	0	75	not out	null	Lutho Sipamla

**INSERT with Subqueries:**

18) Insert a new extra run if the highest individual score of an Indian batsman is above a certain value:

```
INSERT INTO extrascores (Team,Extrascore) SELECT 'India' ,7 WHERE
```

```
(SELECT MAX(Score) from india_bat )>100;
```

	Team	Extrascore	wides	No_balls	Leg_bye
▶	India	6	6	0	0
	Southafrica	8	5	3	0
	India	7	NULL	NULL	NULL



## UPDATE

### 19) Updating Match Result

```
UPDATE match_summary SET Matchwinner='INDIA';
```

### 20) Correcting a Batsman's Score

```
UPDATE southafrica_bat SET Score=70 where Jno=45;
```

Jno	Batsmen_style	Score	Balls	Fours	Sixes	Strike_rate	wicket_status	wicketby	player_name
5	RHB	23	11	0	3	203	out	Suryakumar Yadav	Gerald Coetzee
10	LHB	18	22	2	1	81	out	Varun Chakaravarthy	David Miller
16	RHB	5	9	0	0	55	out	Avesh Khan	Keshav Maharaj
22	RHB	6	4	0	1	150	out	Ravi Bishnoi	Andile Simelane
30	RHB	11	11	0	1	100	out	Avesh Khan	Tristan Stubbs
36	RHB	12	8	1	1	150	out	Ravi Bishnoi	Marco Jansen
44	LHB	21	11	3	1	190	out	Varun Chakaravarthy	Ryan Rickelton
45	RHB	70	22	2	1	113	out	Varun Chakaravarthy	Heinrich Klaasen

### 21) Updating a Bowler's Economy Rate

```
UPDATE india_bowl SET Economy=5 where Player_name='Hardik Pandya';
```

	Overs	Maiden	Runs	Wickets	Economy	Player_name	Nb	Wd
3	0	25	1	8	Arshdeep Singh	0	3	
2	0	28	2	10	Avesh Khan	0	0	
3	0	27	0	5	Hardik Pandya	0	2	
4	0	25	3	6	Varun Chakaravarthy	0	1	
4	0	8	3	7	Ravi Bishnoi	0	0	
1	0	8	0	8	Axar patel	0	0	

### 22) Correcting a Ball-by-Ball Detail

```
UPDATE innings_over_by_over SET Extra_ball1=6 where overs=1 AND Innigs=1;
```

	overs	B1	B2	B3	B4	B5	B6	Extra_ball1	Extra_ball2	Runs	4s	6s	Wickets	Batsman1_name
►	1	1	0	0	1	0	0	6	NULL	2	0	0	0	sanju samson

### 23) Correcting a Ball-by-Ball Detail

```
UPDATE innings_over_by_over SET Extra_ball1=2 , B6=6 where overs=2 AND Innigs=1;
```

	overs	B1	B2	B3	B4	B5	B6	Extra_ball1	Extra_ball2	Runs	4s	6s	Wickets	Batsman1_name
▶	1	1	0	0	1	0	0	NULL	NULL	2	0	0	0	sanju samson
	2	4	1	0	4	1	6	2	NULL	10	2	0	0	sanju samson
	3	4	6	0	1	1	0	NULL	NULL	12	1	1	0	sanju samson

### 24) Updating Multiple Columns for a Specific Record

```
UPDATE innings_over_by_over SET Extra_ball1=null , B6=0 where overs=2 AND Innigs=1;
```

	overs	B1	B2	B3	B4	B5	B6	Extra_ball1	Extra_ball2	Runs	4s	6s	Wickets	Batsman1_name
▶	1	1	0	0	1	0	0	NULL	NULL	2	0	0	0	sanju samson
	2	4	1	0	4	1	0	NULL	NULL	10	2	0	0	sanju samson
	3	4	6	0	1	1	0	NULL	NULL	12	1	1	0	sanju samson
	4	99	0	0	4	0	6	NULL	NULL	10	1	1	1	sanju samson
	5	4	6	1	4	0	0	NULL	NULL	15	2	1	0	sanju samson

### 25) Updating Records Using a Subquery:

```
UPDATE match_summary SET Matchwinner=(select Team from extrascores where  
Extrascore=(select min(Extrascore) from extrascores));
```

	player_of_match	Toss	Match_date	Match_venue	Twinner	tchoosen	Matchwinner
▶	Sanju Samson	South Africa	2024-11-08 08:30:00	Kingsmead Durban	South Africa	opt to bowl	India

## DELETE

### 26) Deleting a Specific Match Record

```
DELETE FROM southafrica_bat where Ino=25;
```

Result Grid										
Filter Rows:										
	Jno	Batsmen_style	Score	Balls	Fours	Sixes	Strike_rate	wicket_status	wicketby	player_name
▶	5	RHB	23	11	0	3	203	out	Suryakumar Yadav	Gerald Coetzee
	10	LHB	18	22	2	1	81	out	Varun Chakaravarthy	David Miller
	16	RHB	5	9	0	0	55	out	Avesh Khan	Keshav Maharaj
	22	RHB	6	4	0	1	150	out	Ravi Bishnoi	Andile Simelane
	30	RHB	11	11	0	1	100	out	Avesh Khan	Tristan Stubbs
	36	RHB	12	8	1	1	150	out	Ravi Bishnoi	Marco Jansen
	44	LHB	21	11	3	1	190	out	Varun Chakaravarthy	Ryan Rickelton
	45	RHB	70	22	2	1	113	out	Varun Chakaravarthy	Heinrich Klaasen
	48	RHB	1	2	0	0	50	out	Ravi Bishnoi	Patrick Kruger
	90	RHB	5	3	1	0	166	not out		Nqabayomi Peter
	94	RHB	8	4	2	0	200	out	Arshdeep Singh	Aiden Markram
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

## 27) Deleting All Records for a Particular Team's Batting Performance

```
truncate SA_BAT;
```

Result Grid										
Filter Rows:										
	jno	player_name	scored	balls	fours	sixes	strike_rate			

## 28) Deleting Records for a Specific Bowler

```
DELETE FROM india_bowl WHERE player_name='SHAMI';
```

BEFORE DELETION :

	Overs	Maiden	Runs	Wickets	Economy	Player_name	Nb	Wd
▶	3	0	25	1	8	Arshdeep Singh	0	3
	2	0	28	2	10	Avesh Khan	0	0
	3	0	27	0	8	Hardik Pandya	0	2
	4	0	25	3	6	Varun Chakaravarthy	0	1
	4	0	8	3	7	Ravi Bishnoi	0	0
	1	0	8	0	8	Axar patel	0	0
	3	1	23	2	4	SHAMI	0	0

AFTER DELETION :

Result Grid										
Filter Rows:										
	Overs	Maiden	Runs	Wickets	Economy	Player_name	Nb	Wd		
▶	3	0	25	1	8	Arshdeep Singh	0	3		
	2	0	28	2	10	Avesh Khan	0	0		
	3	0	27	0	8	Hardik Pandya	0	2		
	4	0	25	3	6	Varun Chakaravarthy	0	1		
	4	0	8	3	7	Ravi Bishnoi	0	0		
	1	0	8	0	8	Axar patel	0	0		



## 29) Deleting Records Based on a Condition:

```
DELETE FROM india_bat WHERE Score=0;
```

### BEFORE DELETION :

Result Grid		Filter Rows:		Edit:		Export/Import:		Wrap Cell Content:		
	Jno	Batsmen_style	Score	Balls	Fours	Sixes	Strike_rate	wicket_status	Wicketby	player_name
▶	2	LHB	5	4	1	0	125	not out	null	Arshdeep Singh
	4	LHB	7	8	1	0	87	out	Gerald Coetzee	Abhishek Sharma
	9	LHB	33	18	3	2	183	out	Maharaj	Tilak Varma
	14	RHB	103	50	7	10	214	out	Nqabayomzi Peter	Samson
	20	LHB	7	7	1	0	100	out	Marco Jansen	Axar Patel
	33	RHB	2	6	0	0	33	out	Gerald Coetzee	Hardik Pandya
	35	LHB	11	10	2	0	110	out	Gerald Coetzee	Rinku Singh
	45	RHB	0	1	0	0	0	not out	NULL	shami
	56	RHB	1	3	0	0	33	Run_out	Klaasen/Marco Jansen	Ravi Bishnoi
	63	RHB	21	17	2	1	123	out	Patrick Kruger	Suryakumar Yadav
●	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

### AFTER DELETION :

Result Grid		Filter Rows:		Edit:		Export/Import:		Wrap Cell Content:		
	Jno	Batsmen_style	Score	Balls	Fours	Sixes	Strike_rate	wicket_status	Wicketby	player_name
▶	2	LHB	5	4	1	0	125	not out	null	Arshdeep Singh
	4	LHB	7	8	1	0	87	out	Gerald Coetzee	Abhishek Sharma
	9	LHB	33	18	3	2	183	out	Maharaj	Tilak Varma
	14	RHB	103	50	7	10	214	out	Nqabayomzi Peter	Samson
	20	LHB	7	7	1	0	100	out	Marco Jansen	Axar Patel
	33	RHB	2	6	0	0	33	out	Gerald Coetzee	Hardik Pandya
	35	LHB	11	10	2	0	110	out	Gerald Coetzee	Rinku Singh
	56	RHB	1	3	0	0	33	Run_out	Klaasen/Marco Jansen	Ravi Bishnoi
	63	RHB	21	17	2	1	123	out	Patrick Kruger	Suryakumar Yadav
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

## 30) Deleting Records Using a Subquery:

```
DELETE from southafrica_bowl where player_name =
(select player_name where Jno=70);
```

Result Grid

Filter Rows:

Export:

Wrap Cell Content:

	Overs	Maiden	Runs	Wickets	Economy	Jno	Player_name	NB	WD
▶	4	0	24	1	6	36	Marco Jansen	1	1
	1	0	10	0	10	94	Aiden Markram	0	0
	4	0	34	1	8	16	Keshav Maharaj	0	0
	4	0	37	3	9	5	Gerald Coetzee	0	0
	3	0	35	1	11	90	Nqabayomzi Peter	0	0
	2	0	35	1	17	48	Patrick Kruger	2	3
	2	0	27	0	13	22	Andile Simelane	0	1
	3	1	10	2	5	70	david	0	0

## AFTER DELETION

	Overs	Maiden	Runs	Wickets	Economy	Jno	Player_name	NB	WD
▶	4	0	24	1	6	36	Marco Jansen	1	1
	1	0	10	0	10	94	Aiden Markram	0	0
	4	0	34	1	8	16	Keshav Maharaj	0	0
	4	0	37	3	9	5	Gerald Coetzee	0	0
	3	0	35	1	11	90	Nqabayomi Peter	0	0
	2	0	35	1	17	48	Patrick Kruger	2	3
	2	0	27	0	13	22	Andile Simelane	0	1

### 31) Deleting Records Using a JOIN

```
DELETE sb from sa_bat sb INNER JOIN southafrica_bat sab ON
sb.Jno=sb.Jno;
```

jno	player_name	scored	balls	fours	sixes	strike_rate
-----	-------------	--------	-------	-------	-------	-------------

## CREATE TABLE

### 32) CREATE TABLES USING NOT NULL , DEFAULT ,CHECK ,PRIMARY KEY, INDEX ,UNIQUE

```
create TABLE umpire( match_no INT PRIMARY KEY,
umpire1_name varchar(20) NOT NULL,
umpire2_name varchar(20) NOT NULL,
up_age1 INT CHECK(up_age1>30),
up_age2 INT CHECK(up_age2>30),
umpire1_position varchar(20) UNIQUE,
umpire2_position varchar(20) UNIQUE
);
```

match_no	umpire1_name	umpire2_name	up_age1	up_age2	umpire1_position	umpire2_position
• NULL	NULL	NULL	NULL	NULL	NULL	NULL

## ALTER TABLE

33) Adding a new column to extrascores.

```
ALTER TABLE extrascores ADD COLUMN overthrow varchar(20);
```

	Team	Extrascore	wides	No_balls	Leg_bye	overthrow
▶	India	6	6	0	0	NULL
	Southafrica	8	5	3	0	NULL
	India	7	NULL	NULL	NULL	NULL

34) Adding a column to india\_bat to store sixes

```
ALTER TABLE india_bat ADD COLUMN 6S INT ;
```

	Jno	Batsmen_style	Score	Balls	Fours	Sixes	Strike_rate	wicket_status	Wicketby	player_name	6S
▶	2	LHB	5	4	1	0	125	not out	null	Arshdeep Singh	NULL
	4	LHB	7	8	1	0	87	out	Gerald Coetzee	Abhishek Sharma	NULL
	9	LHB	33	18	3	2	183	out	Maharaj	Tilak Varma	NULL
	14	RHB	103	50	7	10	214	out	Nqabayomzi Peter	Samson	NULL
	20	LHB	7	7	1	0	100	out	Marco Jansen	Axar Patel	NULL
	33	RHB	2	6	0	0	33	out	Gerald Coetzee	Hardik Pandya	NULL
	35	LHB	11	10	2	0	110	out	Gerald Coetzee	Rinku Singh	NULL
	56	RHB	1	3	0	0	33	Run_out	Klaasen/Marco Jansen	Ravi Bishnoi	NULL
	63	RHB	21	17	2	1	123	out	Patrick Kruger	Suryakumar Yadav	NULL
•	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

35) Adding a column to southafrica\_bowl to store maiden overs

```
ALTER TABLE southafrica_bowl ADD COLUMN Maiden INT DEFAULT 0;
```

	Overs	Maiden	Runs	Wickets	Economy	Jno	Player_name	NB	WD
▶	4	0	24	1	6	36	Marco Jansen	1	1
	1	0	10	0	10	94	Aiden Markram	0	0
	4	0	34	1	8	16	Keshav Maharaj	0	0
	4	0	37	3	9	5	Gerald Coetzee	0	0
	3	0	35	1	11	90	Nqabayomzi Peter	0	0
	2	0	35	1	17	48	Patrick Kruger	2	3
	2	0	27	0	13	22	Andile Simelane	0	1

36) Adding a column to innings\_over\_by\_over to store wide runs

```
ALTER TABLE innings_over_by_over ADD COLUMN WideRun int ;
```

Runs	4s	6s	Wickets	Batsman1_name	Batsman2_name	Bowler_name	catch_by	Innigs	WideRun
2	0	0	0	sanju samson	abhishek sharma	Marco Jansen	NULL	1	NULL
10	2	0	0	sanju samson	abhishek sharma	Aiden Markram	NULL	1	NULL
12	1	1	0	sanju samson	abhishek sharma	Keshav Maharaj	NULL	1	NULL
10	1	1	1	sanju samson	Suryakumar Yadav	Gerald Coetzee	Markram	1	NULL
15	2	1	0	sanju samson	Suryakumar Yadav	Marco Jansen	NULL	1	NULL
7	0	1	0	sanju samson	Suryakumar Yadav	Gerald Coetzee	NULL	1	NULL
5	0	0	0	sanju samson	Suryakumar Yadav	Keshav Maharaj	NULL	1	NULL
14	0	2	0	sanju samson	Suryakumar Yadav	Nqabayomi Peter	NULL	1	NULL
15	1	0	1	sanju samson	Tilak Varma	Patrick Kruger	Simelane	1	NULL
9	0	1	0	sanju samson	Tilak Varma	Andile Simelane	NULL	1	NULL
12	1	1	0	sanju samson	Tilak Varma	Keshav Maharaj	NULL	1	NULL

37) Changing the column name in india\_bat

```
ALTER TABLE india_bat rename column Wicketby to Wicket_by;
```

Result Grid										
Filter Rows:			Edit:			Export/Import:			Wrap Cell Content:	
	Jno	Batsmen_style	Score	Balls	Fours	Sixes	Strike_rate	wicket_status	Wicket_by	player_name
▶	2	LHB	5	4	1	0	125	not out	null	Arshdeep Singh
	4	LHB	7	8	1	0	87	out	Gerald Coetzee	Abhishek Sharma
	9	LHB	33	18	3	2	183	out	Maharaj	Tilak Varma
	14	RHB	103	50	7	10	214	out	Nqabayomi Peter	Samson
	20	LHB	7	7	1	0	100	out	Marco Jansen	Axar Patel
	33	RHB	2	6	0	0	33	out	Gerald Coetzee	Hardik Pandya
	35	LHB	11	10	2	0	110	out	Gerald Coetzee	Rinku Singh
	56	RHB	1	3	0	0	33	Run_out	Klaasen/Marco Jansen	Ravi Bishnoi
	63	RHB	21	17	2	1	123	out	Patrick Kruger	Suryakumar Yadav
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

38) Changing the data type of a column in extrascores

```
ALTER TABLE extrascores Modify column Leg_bye CHAR(20) ;
```

Table: **extrascores**

Columns:

```
Team      varchar(20)
Extrascore int
wides     int
No_balls  int
Leg_bye   char(20)
overthrow varchar(20)
```

39) Dropping a column from innings\_over\_by\_over:

```
ALTER TABLE innings_over_by_over drop COLUMN WideRun;
```



**Table:**  
innings\_over\_by\_over

**Columns:**

overs	int
B1	int
B2	int
B3	int
B4	int
B5	int
B6	int
Extra_ball1	int
Extra_ball2	int
Runs	int
4s	int
6s	int
Wickets	int
Batsman1_name	varchar(30)
Batsman2_name	varchar(20)
Bowler_name	varchar(30)
catch_by	varchar(20)
Innings	int

## DROP TABLE

40) Dropping the extrascores table

```
DROP TABLE EXTRAScore;
```

**Table:** extrascore

**Columns:**

team	varchar(20)
Score	int
Wide	int

41) Dropping a column from match\_summary

```
ALTER TABLE match_summary DROP column Bestcatch;
```

**BEFORE DROP**

Result Grid

Filter Rows:

Export:

Wrap Cell Content:

	player_of_match	Toss	Match_date	Match_venue	Twinner	tchoosen	Matchwinner	Bestcatch
▶	Sanju Samson	South Africa	2024-11-08 08:30:00	Kingsmead Durban	South Africa	opt to bowl	India	NULL

**AFTER DROP**

player_of_match	Toss	Match_date	Match_venue	Twinner	tchoosen	Matchwinner
▶ Sanju Samson	South Africa	2024-11-08 08:30:00	Kingsmead Durban	South Africa	opt to bowl	India

42) Dropping a column from innings\_over\_by\_over

```
ALTER TABLE innings_over_by_over Drop column 2s;
```



Result Grid																		
Filter Rows:																		
Export: Wrap Cell Contents																		
	overs	B1	B2	B3	B4	B5	B6	Extra_ball1	Extra_ball2	Runs	4s	6s	Wickets	Batsman1_name	Batsman2_name	Bowler_name	catch_by	Innings
▶	1	1	0	0	1	0	0	NA	NA	2	0	0	0	sanju samson	abhishek sharma	Marco Jansen	NA	1
	2	4	1	0	4	1	0	NA	NA	10	2	0	0	sanju samson	abhishek sharma	Aiden Markram	NA	1
	3	4	6	0	1	1	0	NA	NA	12	1	1	0	sanju samson	abhishek sharma	Keshav Maharaj	NA	1
	4	99	0	0	4	0	6	NA	NA	10	1	1	1	sanju samson	Suryakumar Yadav	Gerald Coetzee	Markram	1
	5	4	6	1	4	0	0	NA	NA	15	2	1	0	sanju samson	Suryakumar Yadav	Marco Jansen	NA	1
	6	0	0	6	0	0	1	NA	NA	7	0	1	0	sanju samson	Suryakumar Yadav	Gerald Coetzee	NA	1
	7	0	1	1	1	1	1	NA	NA	5	0	0	0	sanju samson	Suryakumar Yadav	Keshav Maharaj	NA	1
	8	0	6	6	1	0	1	NA	NA	14	0	2	0	sanju samson	Suryakumar Yadav	Nqabayomi Peter	NA	1
	9	1	4	81	2	48	8	48	48	15	1	0	1	sanju samson	Tilak Varma	Patrick Kruger	Simelane	1
	10	1	0	0	1	1	6	NA	NA	9	0	1	0	sanju samson	Tilak Varma	Andile Simelane	NA	1
	11	0	6	1	1	0	4	NA	NA	12	1	1	0	sanju samson	Tilak Varma	Keshav Maharaj	NA	1
	12	4	1	6	1	0	1	NA	NA	13	1	1	0	sanju samson	Tilak Varma	Nqabayomi Peter	NA	1

## DROP DATABASE

43) Dropp a database

```
DROP DATABASE 1ST_T20;
```

## TRUNCATE TABLE

43) Truncating the extrascores table

```
TRUNCATE TABLE extrascore;
```

	TEAM	Score	wides	no_balls
▶	India	10	8	2
	Southafrica	12	10	2

Result Grid				
Filter Rows:				
	TEAM	Score	wides	no_balls

44) Truncating the southafrica\_bowl table

```
Truncate table sa_bow;
```

player_name	overs	runs	wickets	economy
-------------	-------	------	---------	---------

## CREATE INDEX

45) Index on match\_id in extrascores

```
CREATE INDEX team_idx ON extrascores (Team);
```

```
SHOW INDEX from extrascores;
```

Table	Non_unique	Key_name	Seq_in_index	Column_name	Collation	Cardinality	Sub_part	Packed	Null	Index_type	Comment	Index_comment	Visible	Expression
▶ extrascores	1	team_idx	1	Team	A	2	<a href="#">NULL</a>	<a href="#">NULL</a>	YES	BTREE			YES	<a href="#">NULL</a>

46) Index on batsman\_name and match\_id in india\_bat

```
CREATE INDEX IB_IDX ON india_bat(player_name,Jno);
```

Table	Non_unique	Key_name	Seq_in_index	Column_name	Collation	Cardinality	Sub_part	Packed	Null	Index_type	Comment	Index_comment	Visible	Expression
▶ india_bat	0	PRIMARY	1	Jno	A	9	<a href="#">NULL</a>	<a href="#">NULL</a>		BTREE			YES	<a href="#">NULL</a>
india_bat	1	IB_IDX	1	player_name	A	9	<a href="#">NULL</a>	<a href="#">NULL</a>		BTREE			YES	<a href="#">NULL</a>
india_bat	1	IB_IDX	2	Jno	A	9	<a href="#">NULL</a>	<a href="#">NULL</a>		BTREE			YES	<a href="#">NULL</a>

47) Index on bowler\_name and match\_id in india\_bowl

```
CREATE INDEX IB_IDX on india_bowl (player_name,Overs);
```

48) Index on match\_id, over\_num, and ball\_num in  
innings\_over\_by\_over:

```
CREATE INDEX ING_OR ON innings_over_by_over (overs,B1,B2,B3,B4,B5,B6,Innigs);
```

Table	Non_unique	Key_name	Seq_in_index	Column_name	Collation	Cardinality	Sub_part	Packed	Null	Index_type	Comment	Index_comment	Visible	Expression
▶ innings_over_by_over	1	ING_OR	1	overs	A	20	<a href="#">NULL</a>	<a href="#">NULL</a>		BTREE			YES	<a href="#">NULL</a>
innings_over_by_over	1	ING_OR	2	B1	A	32	<a href="#">NULL</a>	<a href="#">NULL</a>	YES	BTREE			YES	<a href="#">NULL</a>
innings_over_by_over	1	ING_OR	3	B2	A	38	<a href="#">NULL</a>	<a href="#">NULL</a>	YES	BTREE			YES	<a href="#">NULL</a>
innings_over_by_over	1	ING_OR	4	B3	A	38	<a href="#">NULL</a>	<a href="#">NULL</a>	YES	BTREE			YES	<a href="#">NULL</a>
innings_over_by_over	1	ING_OR	5	B4	A	38	<a href="#">NULL</a>	<a href="#">NULL</a>	YES	BTREE			YES	<a href="#">NULL</a>
innings_over_by_over	1	ING_OR	6	B5	A	38	<a href="#">NULL</a>	<a href="#">NULL</a>	YES	BTREE			YES	<a href="#">NULL</a>
innings_over_by_over	1	ING_OR	7	B6	A	38	<a href="#">NULL</a>	<a href="#">NULL</a>	YES	BTREE			YES	<a href="#">NULL</a>
innings_over_by_over	1	ING_OR	8	Innigs	A	38	<a href="#">NULL</a>	<a href="#">NULL</a>	YES	BTREE			YES	<a href="#">NULL</a>

49) Index on match\_id and batsman\_name in southafrica\_bat

```
create INDEX idx_sa_bat ON southafrica_bat (Jno,player_name);
```

Table	Non_unique	Key_name	Seq_in_index	Column_name	Collation	Cardinality	Sub_part	Packed	Null	Index_type	Comment	Index_comment	Visible	Expression
southafrica_bat	0	PRIMARY	1	Jno	A	11	NULL	NULL		BTREE			YES	NULL
southafrica_bat	1	idx_sa_bat	1	Jno	A	11	NULL	NULL		BTREE			YES	NULL
southafrica_bat	1	idx_sa_bat	2	player_name	A	11	NULL	NULL		BTREE			YES	NULL

## 50) Index on a calculated column in india\_bat

```
CREATE INDEX idx_strikerate_ind ON india_bat(((Score/Balls)*100));
```

Table	Non_unique	Key_name	Seq_in_index	Column_name	Collation	Cardinality	Sub_part	Packed	Null	Index_type	Comment	Index_comment	Visible	Expression
india_bat	0	PRIMARY	1	Jno	A	9	NULL	NULL		BTREE			YES	NULL
india_bat	1	ID_IDX	1	player_name	A	9	NULL	NULL		BTREE			YES	NULL
india_bat	1	ID_IDX	2	Jno	A	9	NULL	NULL		BTREE			YES	NULL
india_bat	1	idx_strikerate_ind	1	(((Score/Balls)*100))	A	8	NULL	NULL	YES	BTREE			YES	((('Score' / 'Balls') * 100))

## 51) Unique index on innings and over\_num and ball\_num in innings\_over\_by\_over

```
CREATE UNIQUE INDEX unq_idx_ing_over ON innings_over_by_over (overs,B1,B2,B3,Innigs);
```

Table	Non_unique	Key_name	Seq_in_index	Column_name	Collation	Cardinality	Sub_part	Packed	Null	Index_type	Comment	Index_comment	Visible	Expression
innings_over_by_over	0	unq_idx_ing_over	2	B1	A	32	NULL	NULL	YES	BTREE			YES	NULL
innings_over_by_over	0	unq_idx_ing_over	3	B2	A	38	NULL	NULL	YES	BTREE			YES	NULL
innings_over_by_over	0	unq_idx_ing_over	4	B3	A	38	NULL	NULL	YES	BTREE			YES	NULL
innings_over_by_over	0	unq_idx_ing_over	5	Innigs	A	38	NULL	NULL	YES	BTREE			YES	NULL
innings_over_by_over	1	ING_OR	1	overs	A	20	NULL	NULL		BTREE			YES	NULL
innings_over_by_over	1	ING_OR	2	B1	A	32	NULL	NULL	YES	BTREE			YES	NULL
innings_over_by_over	1	ING_OR	3	B2	A	38	NULL	NULL	YES	BTREE			YES	NULL
innings_over_by_over	1	ING_OR	4	B3	A	38	NULL	NULL	YES	BTREE			YES	NULL
innings_over_by_over	1	ING_OR	5	B4	A	38	NULL	NULL	YES	BTREE			YES	NULL
innings_over_by_over	1	ING_OR	6	B5	A	38	NULL	NULL	YES	BTREE			YES	NULL
innings_over_by_over	1	ING_OR	7	B6	A	38	NULL	NULL	YES	BTREE			YES	NULL
innings_over_by_over	1	ING_OR	8	Innigs	A	38	NULL	NULL	YES	BTREE			YES	NULL

## DROP INDEX

### 52) Drop the index on match\_id in extrascores

```
ALTER TABLE extrascores DROP INDEX team_idx;
```

Table	Non_unique	Key_name	Seq_in_index	Column_name	Collation	Cardinality	Sub_part	Packed	Null	Index_type	Comment	Index_comment	Visible	Expression
-------	------------	----------	--------------	-------------	-----------	-------------	----------	--------	------	------------	---------	---------------	---------	------------

53) Drop the index on match\_id and batsman\_name in southafrica\_bat

```
ALTER TABLE southafrica_bat DROP INDEX idx_sa_bat ;
```

54) Drop the unique index on match\_id, over\_num, and ball\_num in innings\_over\_by\_over:

```
ALTER TABLE innings_over_by_over DROP INDEX unq_idx_ing_over ;
```

	Table	Non_unique	Key_name	Seq_in_index	Column_name	Collation	Cardinality	Sub_part	Packed	Null	Index_type	Comment	Index_comment	Visible	Expression
▶	innings_over_by_over	1	ING_OR	1	overs	A	20	<b>NULL</b>	<b>NULL</b>		BTREE			YES	<b>NULL</b>
	innings_over_by_over	1	ING_OR	2	B1	A	32	<b>NULL</b>	<b>NULL</b>	YES	BTREE			YES	<b>NULL</b>
	innings_over_by_over	1	ING_OR	3	B2	A	38	<b>NULL</b>	<b>NULL</b>	YES	BTREE			YES	<b>NULL</b>
	innings_over_by_over	1	ING_OR	4	B3	A	38	<b>NULL</b>	<b>NULL</b>	YES	BTREE			YES	<b>NULL</b>
	innings_over_by_over	1	ING_OR	5	B4	A	38	<b>NULL</b>	<b>NULL</b>	YES	BTREE			YES	<b>NULL</b>
	innings_over_by_over	1	ING_OR	6	B5	A	38	<b>NULL</b>	<b>NULL</b>	YES	BTREE			YES	<b>NULL</b>
	innings_over_by_over	1	ING_OR	7	B6	A	38	<b>NULL</b>	<b>NULL</b>	YES	BTREE			YES	<b>NULL</b>
	innings_over_by_over	1	ING_OR	8	Innigs	A	38	<b>NULL</b>	<b>NULL</b>	YES	BTREE			YES	<b>NULL</b>

## INNER JOIN

55) Joining extrascores and match\_summary

```
SELECT * from extrascore es INNER JOIN
match_summary ms ON es.Matchid=ms.Matchid;
```

Matchid	Team	Extrascore	Wides	No_balls	player_of_match	Toss	Match_date	Match_venue	Twiner	tchoosen	Matchwinner	Ind_total	Sa_total	run_rate	extrascore_status	Matchid
▶ 1	India	6	6	0	Sanju Samson	South Africa	2024-11-08 08:30:00	Kingsmead Durban	South Africa	opt to bowl	India__	202	141	1.10526	WITHIN LIMIT	1
1	southafrica	8	5	3	Sanju Samson	South Africa	2024-11-08 08:30:00	Kingsmead Durban	South Africa	opt to bowl	India__	202	141	1.10526	WITHIN LIMIT	1

56) Joining multiple tables to get detailed match information:

```
SELECT ibo.player_name , ibo.Runs ,ms.Matchwinner , ms.Ind_total ,ms.Sa_total FROM india_bowl ibo
INNER JOIN
match_summary ms ON ibo.Matchid=ms.Matchid;
```

	player_name	Runs	Matchwinner	Ind_total	Sa_total
▶	Arshdeep Singh	25	India__	202	141
	Avesh Khan	28	India__	202	141
	Hardik Pandya	27	India__	202	141
	Varun Chakaravarthy	25	India__	202	141
	Ravi Bishnoi	8	India__	202	141
	Axar Patel	8	India__	202	141

57) Joining tables to analyze team performance over time:

```
SELECT ms.Matchid , ms.Match_date ,ms.Matchwinner ,
       ib.player_name ,ib.Score,
       sb.player_name , sb.Wickets
FROM match_summary ms
INNER JOIN india_bat ib ON ms.Matchid=ib.Matchid
INNER JOIN southafrica_bowl sb ON ms.Matchid=sb.Matchid;
```

Result Grid   Filter Rows:   Export:   Wrap Cell Content:							
	Matchid	Match_date	Matchwinner	player_name	Score	player_name	Wickets
▶	1	2024-11-08 08:30:00	India__	Arshdeep Singh	5	Andile Simelane	0
	1	2024-11-08 08:30:00	India__	Arshdeep Singh	5	Patrick Kruger	1
	1	2024-11-08 08:30:00	India__	Arshdeep Singh	5	Nqabayomi Peter	1
	1	2024-11-08 08:30:00	India__	Arshdeep Singh	5	Gerald Coetzee	3
	1	2024-11-08 08:30:00	India__	Arshdeep Singh	5	Keshav Maharaj	1
	1	2024-11-08 08:30:00	India__	Arshdeep Singh	5	Aiden Markram	0
	1	2024-11-08 08:30:00	India__	Arshdeep Singh	5	Marco Jansen	1
	1	2024-11-08 08:30:00	India__	Abhishek Sharma	7	Andile Simelane	0

58) Joining tables to analyze match outcomes based on specific conditions



```

SELECT ms.Match_date ,
       SUM( CASE
              WHEN i.Innigs=1 THEN i.Runs
              ELSE 0
            END ) as india_total ,
       SUM(CASE
              WHEN i.Innigs=2 THEN i.Runs
              ELSE 0
            END ) as sa_total
  from match_summary ms
 INNER JOIN innings_over_by_over i ON ms.Matchid = i.Matchid
 group by
  ms.Match_date;

```

	Match_date	india_total	sa_total
▶	2024-11-08 08:30:00	202	161

## LEFT JOIN

59) Joining extrascores with match\_summary

60) Joining Extrascore with match\_summary

```

select e.Team,m.Matchwinner FROM extrascore e
LEFT JOIN match_summary m ON e.Matchid=m.Matchid;

```

	Team	Matchwinner
▶	India	India__
	southafrica	India__

61) Joining india\_bat with match\_summary

```
select ib.player_name,ib.Score, ib.Sixes,ib.Fours ,ms.Matchwinner from india_bat ib
LEFT JOIN match_summary ms ON ib.Matchid=ms.Matchid;
```

	player_name	Score	Sixes	Fours	Matchwinner
▶	Arshdeep Singh	5	0	1	India__
	Abhishek Sharma	7	0	1	India__
	Tilak Varma	33	2	3	India__
	Samson	103	10	7	India__
	Axar Patel	7	0	1	India__
	shashi	33	33	33	India__
	Hardik Pandya	2	0	0	India__
	Rinku Singh	11	0	2	India__
	Ravi Bishnoi	1	0	0	India__
	Suryakumar Yadav	21	1	2	India__

62) Joining multiple tables to get detailed match information:

```
SELECT
ms.Matchid,ms.Match_date,ms.Match_venue ,es.Team,es.Extrascore
FROM match_summary ms
LEFT JOIN extrascore es ON ms.Matchid=es.Matchid;
```

	Matchid	Match_date	Match_venue	Team	Extrascore
▶	1	2024-11-08 08:30:00	Kingsmead Durban	southafrica	8
	1	2024-11-08 08:30:00	Kingsmead Durban	India	6

63) Finding matches where India's highest scorer scored more than 100 runs:

64) Finding matches where India's economy rate was better than South Africa's:

## RIGHT JOIN

65) All South Africa bowlers and their corresponding match details:

```
SELECT sb.player_name , ms.Match_date ,ms.Match_venue
FROM southafrica_bowl sb
RIGHT JOIN match_summary ms ON sb.Matchid=ms.Matchid ;
```

	player_name	Match_date	Match_venue
▶	Aiden Markram	2024-11-08 08:30:00	Kingsmead Durban
	Andile Simelane	2024-11-08 08:30:00	Kingsmead Durban
	Gerald Coetzee	2024-11-08 08:30:00	Kingsmead Durban
	Keshav Maharaj	2024-11-08 08:30:00	Kingsmead Durban
	Marco Jansen	2024-11-08 08:30:00	Kingsmead Durban
	Nqabayomi Peter	2024-11-08 08:30:00	Kingsmead Durban
	Patrick Kruger	2024-11-08 08:30:00	Kingsmead Durban

66) All matches and their corresponding India and South Africa bowling details:

```
-- 66
select * from innings_over_by_over;
select iob.overs,iob.Runs,ms.Match_venue from
innings_over_by_over iob
RIGHT JOIN match_summary ms ON iob.matchid=ms.matchid ORDER BY RUNS LIMIT 5;
```

	overs	Runs	Match_venue
▶	11	1	Kingsmead Durban
	10	2	Kingsmead Durban
	1	2	Kingsmead Durban
	5	3	Kingsmead Durban
	18	3	Kingsmead Durban

## FULL OUTER JOIN

67) Compare Indian and South African batsman performances for a specific match:

68) Combine batting, bowling, and match summary data:

```
SELECT ib.batsman_name, ib.runs_scored, ib.balls_faced,
       ibw.wickets_taken, ibw.economy_rate,
       ms.match_result
FROM india_bat ib
```

FULL OUTER JOIN india\_bowl ibw ON ib.match\_id = ibw.match\_id AND  
 ib.batsman\_name = ibw.bowler\_name  
 FULL OUTER JOIN match\_summary ms ON ib.match\_id = ms.match\_id;

## UNION

71) Combining Indian and South African Batsmen

```
select player_name from india_bat
UNION
select player_name from southafrica_bat ;
```

player_name	
Abhishek Sharma	
Arshdeep Singh	
Axar Patel	
Hardik Pandya	
Ravi Bishnoi	
Rinku Singh	
Samson	
Suryakumar Yadav	
Tilak Varma	
Gerald Coetzee	
David Miller	
Keshav Maharaj	
Andile Simelane	
Tristan Stubbs	
	Marco Jansen
	Ryan Rickelton
	Heinrich Klaasen
	Patrick Kruger
	Nqabayomi Peter
	Aiden Markram

72) Combining over-by-over runs with total match runs:

```
SELECT overs,Runs as over_runs from innings_over_by_over
UNION
SELECT Ind_total,Sa_total from match_summary;
```

	overs	over_runs		overs	over_runs
	1	2		18	3
►	2	10		19	13
	3	12		20	4
	4	10		1	9
	5	15		2	9
	6	7		3	9
	7	5		4	13
	8	14		5	3
	9	15		6	5
	10	9		7	9
	11	12		8	10
	12	13		9	8
	13	18		10	2
	14	20		11	1
	15	5		12	8
	16	8		13	6
	17	7		14	8
	18	3		15	13
	19	13		16	15
	20	4		17	6
	1	9		18	6
				202	141

## UNION ALL

73Combining Batting Records of Both Teams

```
select player_name,Score from india_bat
UNION ALL
select player_name,Score from southafrica_bat ORDER BY Score desc;
```



player_name	Score		
Samson	103		
Heinrich Klaasen	70		
Tilak Varma	33		
Gerald Coetzee	23		
Suryakumar Yadav	21		
Ryan Rickelton	21		
David Miller	18		Andile Simelane 6
Marco Jansen	12		Arshdeep Singh 5
Rinku Singh	11		Keshav Maharaj 5
Tristan Stubbs	11		Nqabayomi Peter 5
Aiden Markram	8		Hardik Pandya 2
Abhishek Sharma	7		Ravi Bishnoi 1
Axar Patel	7		Patrick Kruger 1

74)Combining Bowling Records of Both Teams:

```
select player_name,Wickets from india_bowl
UNION ALL
SELECT player_name ,Wickets from southafrica_bowl order by Wickets DESC;
```

player_name	Wickets
Varun Chakaravarthy	3
Ravi Bishnoi	3
Gerald Coetzee	3
Avesh Khan	2
Arshdeep Singh	1
Marco Jansen	1
Keshav Maharaj	1
Nqabayomi Peter	1
Patrick Kruger	1
Hardik Pandya	0
Axar patel	0
Aiden Markram	0
Andile Simelane	0

75)combining Player Names from Both Teams:

```
select player_name from india_bat
UNION ALL
select player_name from southafrica_bat ORDER BY player_name;
```

player_name	
▶ Abhishek Sharma	
Aiden Markram	
Andile Simelane	
Arshdeep Singh	
Axar Patel	
David Miller	
Gerald Coetzee	Ravi Bishnoi
Hardik Pandya	Rinku Singh
Heinrich Klaasen	Ryan Rickelton
Keshav Maharaj	Samson
Marco Jansen	Suryakumar Yadav
Nqabayomi Peter	Tilak Varma
Patrick Kruger	Tristan Stubbs

#### 76) Combining Batting and Bowling Records for a Specific Player

```
select player_name ,Score as 'score/wick' from india_bat ibat
UNION ALL
select player_name ,Wickets from india_bowl ibowl;
```

player_name	score/wick
▶ Arshdeep Singh	5
Abhishek Sharma	7
Tilak Varma	33
Samson	103
Axar Patel	7
Hardik Pandya	2
Rinku Singh	11
Ravi Bishnoi	1
Suryakumar Yadav	21
Arshdeep Singh	1
Avesh Khan	2
Hardik Pandya	0
Varun Chakaravar...	3
Ravi Bishnoi	3
Axar patel	0

#### 77) Combining Data from Multiple Tables with Different Column Names:

```

select player_name from india_bat
UNION ALL
select player_name from southafrica_bat
UNION ALL
select Match_venue from match_summary;

```

player_name	
Abhishek Sharma	
Arshdeep Singh	
Axar Patel	
Hardik Pandya	
Ravi Bishnoi	
Rinku Singh	
Samson	
Suryakumar Yadav	
Tilak Varma	
Gerald Coetzee	
David Miller	
Keshav Maharaj	
Andile Simelane	Heinrich Klaasen
Tristan Stubbs	Patrick Kruger
Marco Jansen	Nqabayomi Peter
Ryan Rickelton	Aiden Markram
Heinrich Klaasen	Kingsmead Durban

## DISTINCT

78) Unique Batsmen for India:

```

select DISTINCT player_name from india_bat;

```

player_name
Abhishek Sharma
Arshdeep Singh
Axar Patel
Hardik Pandya
Ravi Bishnoi
Rinku Singh
Samson
Suryakumar Yadav
Tilak Varma

79) Unique Bowlers for South Africa:

```
select DISTINCT player_name from southafrica_bowl;
```

80)Unique Toss Winners:

```
select DISTINCT TWINNER FROM match_summary;
```

	TWINNER
▶	South Africa

## WHERE

81)Find Indian batsmen who scored more than 100 runs in a match:

```
select player_name,Score from india_bat where Score>100;
```

	player_name	Score
▶	Samson	103

82)Find South African bowlers who took more than 5 wickets in a match:

	player_name	Wickets
▶	Gerald Coetzee	3

```
SELECT player_name,Wickets from southafrica_bowl where Wickets>2;
```

83) Find balls that resulted in a six:

```
select B1,B2,B3,B4,B5,B6 FROM innings_over_by_over where B1=6 OR B2=6 OR B3=6 OR B4=6 OR B5=6 OR B6=6;
```

	B1	B2	B3	B4	B5	B6
▶	0	1	0	0	48	6
	4	6	0	1	1	0
	0	2	99	1	4	6
	99	0	0	4	0	6
	4	6	1	4	0	0
	0	0	6	0	0	1
	0	6	6	1	0	1
	1	6	0	1	1	1
	1	0	0	1	1	6
	0	6	1	1	0	4
	1	6	99	1	99	0
	4	1	6	1	0	1
	1	4	4	6	48	1
	99	6	0	0	99	0
	2	4	6	1	6	1
	6	1	0	6	0	99
	1	0	1	48	6	6
	1	1	6	99	0	0

84) Find Indian batsmen who scored a century and had a strike rate greater than 100:

```
Select player_name,Score,Strike_rate from india_bat where Score>=100 AND Strike_rate>100;
```

	player_name	Score	Strike_rate
▶	Samson	103	214

85) Find South African bowlers who took a 5-wicket haul and had an economy rate less than 4:

```
SELECT player_name,Wickets,Economy from southafrica_bowl where Wickets=5 AND Economy<4;
```

	player_name	Wickets	Economy
--	-------------	---------	---------

86) Find balls that were either a wide or a no-ball:

```
select B1,B2,B3,B4,B5,B6 FROM innings_over_by_over where B1=48 OR B1=8 OR
B2=48 OR B2=8 OR
B3=48 OR B3=8 OR
B4=48 OR B4=8 OR
B5=48 OR B5=8 OR
B6=48 or B6=8 ;
```



	B1	B2	B3	B4	B5	B6
	0	1	0	0	48	6
	0	1	48	1	0	0
	0	99	0	4	0	48
	1	4	81	2	48	8
	1	4	4	6	48	1
	1	0	1	48	6	6
	1	48	48	1	0	2
▶	48	99	0	1	8	0

## ORDER BY

87) Order extrascores by match\_date in descending order:

```
select Extrascore,Team from extrascores ORDER BY Extrascore DESC;
```

	Extrascore	Team
▶	8	Southafrica
	6	India

88) Order india\_bat by runs\_scored in ascending order:

```
SELECT player_name ,Score from india_bat order by Score;
```

	player_name	Score
▶	Ravi Bishnoi	1
	Hardik Pandya	2
	Arshdeep Singh	5
	Abhishek Sharma	7
	Axar Patel	7
	Rinku Singh	11
	Suryakumar Yadav	21
	Tilak Varma	33
	Samson	103

89) Order southafrica\_bowl by wickets\_taken in descending order:

```
SELECT player_name,Wickets from southafrica_bowl ORDER BY Wickets DESC;
```

	player_name	Wickets
▶	Gerald Coetzee	3
	Marco Jansen	1
	Keshav Maharaj	1
	Nqabayomi Peter	1
	Patrick Kruger	1
	Aiden Markram	0
	Andile Simelane	0

- 90) Order india\_bat by runs\_scored in descending order, and then by strike\_rate in ascending order:

```
SELECT player_name,Score,Strike_rate from india_bat ORDER BY Score DESC, Strike_rate ASC;
```

- 91) Get the 6th to 10th highest wicket-takers from southafrica\_bowl:

	Player_name	Wickets
▶	Marco Jansen	1
	Keshav Maharaj	1
	Nqabayomi Peter	1
	Patrick Kruger	1

- 92) Order match\_summary by match result, prioritizing 'India won' first:

```
SELECT * FROM match_summary ORDER BY CASE
WHEN Matchwinner='India' THEN 1
ELSE 2
END;
```

	player_of_match	Toss	Match_date	Match_venue	Twinner	tchosen	Matchwinner	Ind_total	Sa_total
▶	Sanju Samson	South Africa	2024-11-08 08:30:00	Kingsmead Durban	South Africa	opt to bowl	India	202	141

## GROUP BY

- 93) Group Indian batsmen by their average runs per innings in india\_bat

```
SELECT AVG(Score) as avg_scr from india_bat GROUP BY Score;
```

	avg_scr
▶	5.0000
	7.0000
	33.0000
	103.0000
	2.0000
	11.0000
	1.0000
	21.0000

94) Group South African bowlers by the number of wickets taken in southafrica\_bowl:

```
SELECT Wickets ,player_name from southafrica_bowl where Wickets =1 group by Wickets ,player_name ;
```

	Wickets	player_name
▶	1	Marco Jansen
	1	Keshav Maharaj
	1	Nqabayomi Peter
	1	Patrick Kruger

95) Group Indian batsmen by their average runs and strike rate in india\_bat:

HAVING

96) Find bowlers who took more than 2 wickets in a match:

```
select player_name,Wickets from india_bowl HAVING Wickets>2;
```

	player_name	Wickets
▶	Varun Chakaravathy	3
	Ravi Bishnoi	3

97) Find the bowlers with the best economy rate in each match

COUNT

98) Count the number of Indian batsmen who scored more than 50 runs in a match:

```
select count(Score) from india_bat where Score>50;
```

	count(Score)
▶	1

99) Count the total number of balls bowled in a specific match:

```
SELECT COUNT(B1) + COUNT(B2) + COUNT(B3)+COUNT(B4) +COUNT(B5)+COUNT(B6)+
COUNT(Extra_ball1) +COUNT(Extra_ball2) as total_balls
from innings_over_by_over WHERE
B1 IS NOT NULL
OR B2 IS NOT NULL
OR B3 IS NOT NULL
OR B4 IS NOT NULL
OR B5 IS NOT NULL
OR B6 IS NOT NULL
OR Extra_ball1 IS NOT NULL
OR Extra_ball2 IS NOT NULL ;
```

	total_balls
▶	238

100) Count the number of sixes hit by each Indian batsman:

```
SELECT player_name ,Sixes from india_bat ORDER BY Sixes desc;
```

	player_name	Sixes
▶	Samson	10
	Tilak Varma	2
	Suryakumar Yadav	1
	Arshdeep Singh	0
	Abhishek Sharma	0
	Axar Patel	0
	Hardik Pandya	0
	Rinku Singh	0
	Ravi Bishnoi	0

## SUM

101) Total runs scored by India:

```
select sum(Runs) as total_score from innings_over_by_over where Innings=1 ;
```

	total_score
▶	202

102) Total wickets taken by South Africa:

```
select sum(Wickets) as total_sa_wks from innings_over_by_over where Innings=1;
```

	total_sa_wks
▶	8

103) Total runs scored by each Indian batsman in a match:

```
select player_name,Score from india_bat order by Score DESC;
```

	player_name	Score
▶	Samson	103
	Tilak Varma	33
	Suryakumar Yadav	21
	Rinku Singh	11
	Abhishek Sharma	7
	Axar Patel	7
	Arshdeep Singh	5
	Hardik Pandya	2
	Ravi Bishnoi	1

104) Total wickets taken by each South African bowler in a series:

```
select Wickets ,player_name from southafrica_bowl order by Wickets desc;
```

	Wickets	player_name
▶	3	Gerald Coetzee
	1	Marco Jansen
	1	Keshav Maharaj
	1	Nqabayomi Peter
	1	Patrick Kruger
	0	Aiden Markram
	0	Andile Simelane

105) Batsmen who scored more than 100 runs in a match:

```
SELECT player_name , sum(Score) from india_bat where Score >=100 GROUP BY player_name;
```

	player_name	sum(Score)
▶	Samson	103



## AVG

106) Average runs scored by Indian batsmen in a match:

```
SELECT AVG(Score) as avg_ind_score from india_bat ;
```

	avg_ind_score
▶	21.1111

107) Average economy rate of South African bowlers:

```
select AVG(Economy ) as sa_bowleco_avg from southafrica_bowl;
```

	sa_bowleco_avg
▶	10.5714

108) Average runs scored per over in an innings:

```
SELECT AVG(Runs) as avg_run_inng from innings_over_by_over where Innigs=1;
```

	avg_run_inng
▶	10.1000

109) Find batsmen with an average score greater than 50

```
select player_name ,AVG(Score) as avg_score from india_bat GROUP BY player_name HAVING avg_score>50 ;
```

	player_name	avg_score
▶	Samson	103.0000

110) Find bowlers with an average economy rate less than 8:

```
SELECT player_name ,avg(Economy) as avg_bw_eco from india_bowl GROUP BY player_name HAVING avg_bw_eco <8;
```

	player_name	avg_bw_eco
▶	Ravi Bishnoi	7.0000
	Varun Chakaravarthy	6.0000

## MIN

111) Find the minimum runs scored by an Indian batsman in a match

```
SELECT player_name , Min(Score) as min_score from india_bat group by player_name ORDER BY min_score LIMIT 1;
```

	player_name	min_score
▶	Ravi Bishnoi	1

- 112) Find the minimum economy rate of a South African bowler in a match:

```
select player_name ,MIN(Economy) as min_eco from southafrica_bowl group by player_name Order by min_eco LIMIT 1;
```

	player_name	min_eco
▶	Marco Jansen	6

- 113) Find the minimum number of balls bowled in an over:

- 114) Find the batsmen who scored less than 10 runs in all their innings

```
SELECT player_name ,min(Score) from southafrica_bat where Score<=10 GROUP BY player_name ;
```

- 115) Find the minimum runs scored by the batsman with the highest strike rate

## MAX

- 116) Maximum number of runs scored in an over:

```
select max(Runs) from innings_over_by_over ;
```

	max(Runs)
▶	20

- 117) Maximum runs scored by each Indian batsman:

```
select max(Score) ,player_name from india_bat group by player_name ;
```

	max(Score)	player_name
▶	7	Abhishek Sharma
	5	Arshdeep Singh
	7	Axar Patel
	2	Hardik Pandya
	1	Ravi Bishnoi
	11	Rinku Singh
	103	Samson
	21	Suryakumar Yadav
	33	Tilak Varma

118) Bowlers with more than 5 wickets in a match:

```
select player_name,max(wickets) as mx_wk from india_bowl group by player_name having mx_wk order by mx_wk desc limit 2;
```

	player_name	mx_wk
▶	Ravi Bishnoi	3
	Varun Chakaravathy	3

## BETWEEN

119) Batsmen who scored between 50 and 100 runs:

```
select player_name ,Score from india_bat where Score between 30 and 105;
```

	player_name	Score
▶	Tilak Varma	33
	Samson	103

120) Bowlers who took between 2 and 3 wickets

```
select player_name,Wickets from india_bowl where Wickets between 2 and 3;
```

	player_name	Wickets
▶	Avesh Khan	2
	Varun Chakaravathy	3
	Ravi Bishnoi	3

121) Overs with runs scored between 10 and 15

```
select overs,Runs from innings_over_by_over where Runs between 10 and 15;
```

	overs	Runs
▶	2	10
	3	12
	4	10
	5	15
	8	14
	9	15
	11	12
	12	13
	19	13
	4	13
	8	10
	15	13
	16	15

## LIKE

### 122) Player Name Search:

- Find all players whose names start with the letter 'S' in any of the batting or bowling tables.

```
select player_name from india_bat where player_name LIKE 's%';
```

	player_name
▶	Samson
	Suryakumar Yadav

### 123) Wicket Kind Search:

- Find all wickets taken by bowlers where the wicket kind is 'catchby' and starts with "T".

	catch_by
▶	Tristan Stubbs
	Tristan Stubbs
	Tilak Varma

```
select catch_by from innings_over_by_over where catch_by LIKE 'T%';
```

### 124) Batsman Name Search:

- Find all innings where the batsman's name ends with 'Sharma'.

```
select Batsman2_name from innings_over_by_over where Batsman2_name Like '%sharma';
```

	Batsman2_name
▶	abhishek sharma
	abhishek sharma
	abhishek sharma

## 125) Bowler Name Search:

- Find all bowlers whose names start with 'A' and end with 'h'.

```
select Bowler_name from innings_over_by_over where Bowler_name like 'A%h';
```

	Bowler_name
▶	Arshdeep Singh

## IN

### 126) Identify overs where India scored 15 or more runs in the innings\_over\_by\_over table:

```
select overs from innings_over_by_over where Innigs IN (1) AND Runs in (15,16,17,18,19,20);
```

	overs
▶	5
	9
	13
	14

### 127) List bowlers from South Africa who took 2 or more wickets in a match:

```
select player_name from southafrica_bowl where Wickets IN (2,3,4);
```

	player_name
▶	Gerald Coetzee

## NOT

### 128) Find all Indian batsmen who did NOT score a century

```
select player_name,Score from india_bat where NOT Score>100;
```



	player_name	Score
▶	Arshdeep Singh	5
	Abhishek Sharma	7
	Tilak Varma	33
	Axar Patel	7
	Hardik Pandya	2
	Rinku Singh	11
	Ravi Bishnoi	1
	Suryakumar Yadav	21

129) Find all Indian bowlers who did NOT take a wicket in the match

```
select player_name,Wickets from india_bowl where Not Wickets >=1;
```

	player_name	Wickets
▶	Hardik Pandya	0
	Axar patel	0

130) Find all South African bowlers who did NOT bowl a maiden over

```
select player_name,Maiden from southafrica_bowl where NOT Maiden>1;
```

	player_name	Maiden
▶	Marco Jansen	0
	Aiden Markram	0
	Keshav Maharaj	0
	Gerald Coetzee	0
	Nqabayomi Peter	0
	Patrick Kruger	0
	Andile Simelane	0

## IS NULL

131) Check for incomplete innings data

```
select * from innings_over_by_over where catch_by AND Extra_ball1 OR Extra_ball2 IS NULL;
```

	overs	B1	B2	B3	B4	B5	B6	Extra_ball1	Extra_ball2	Runs	4s	6s	Wickets	Batsman1_name	Batsman2_name	Bowler_name	catch_by	Innings
▶	1	1	0	0	1	0	0	NULL	NULL	2	0	0	0	sanju samson	abhishek sharma	Marco Jansen	NULL	1
	2	4	1	0	4	1	0	NULL	NULL	10	2	0	0	sanju samson	abhishek sharma	Aiden Markram	NULL	1
	3	4	6	0	1	1	0	NULL	NULL	12	1	1	0	sanju samson	abhishek sharma	Keshav Maharaj	NULL	1
	4	99	0	0	4	0	6	NULL	NULL	10	1	1	1	sanju samson	Suryakumar Yadav	Gerald Coetzee	Markram	1
	5	4	6	1	4	0	0	NULL	NULL	15	2	1	0	sanju samson	Suryakumar Yadav	Marco Jansen	NULL	1
	6	0	0	6	0	0	1	NULL	NULL	7	0	1	0	sanju samson	Suryakumar Yadav	Gerald Coetzee	NULL	1
	7	0	1	1	1	1	1	NULL	NULL	5	0	0	0	sanju samson	Suryakumar Yadav	Keshav Maharaj	NULL	1
	8	0	6	6	1	0	1	NULL	NULL	14	0	2	0	sanju samson	Suryakumar Yadav	Nqabayomi Peter	NULL	1

132) Find Indian bowlers with no wickets taken in a specific match

```
select player_name , Wickets from india_bowl where Wickets IS NULL;
```

player_name	Wickets
-------------	---------

## IS NOT NULL

133) Find Indian Batsmen with Non-Zero Scores

```
SELECT * FROM india_bat where Score IS NOT NULL;
```

	Jno	Batsmen_style	Score	Balls	Fours	Sixes	Strike_rate	wicket_status	Wicket_by	player_name
▶	2	LHB	5	4	1	0	125	not out	null	Arshdeep Singh
	4	LHB	7	8	1	0	87	out	Gerald Coetzee	Abhishek Sharma
	9	LHB	33	18	3	2	183	out	Maharaj	Tilak Varma
	14	RHB	103	50	7	10	214	out	Nqabayomi Peter	Samson
	20	LHB	7	7	1	0	100	out	Marco Jansen	Axar Patel
	33	RHB	2	6	0	0	33	out	Gerald Coetzee	Hardik Pandya
	35	LHB	11	10	2	0	110	out	Gerald Coetzee	Rinku Singh
	56	RHB	1	3	0	0	33	Run_out	Klaasen/Marco Jansen	Ravi Bishnoi
	63	RHB	21	17	2	1	123	out	Patrick Kruger	Suryakumar Yadav
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

134) List South African Bowlers with an Economy Rate Less Than 9 and Non-Zero Overs Bowled:

```
select player_name from southafrica_bowl where Economy < 9 AND Overs IS NOT NULL;
```

player_name
▶ Marco Jansen
Keshav Maharaj

## CASE

135) identify players with exceptional performances:

```
-- 135
select * from india_bat;

SELECT player_name,
CASE
    WHEN Score>100 THEN 'Century'
    when Score > 50 THEN 'Half-century'
    ELSE 'Normal Innings'
END AS performance_category
from india_bat
UNION ALL
select player_name ,
CASE
    WHEN Wickets>5 THEN 'Five-wickets haul'
    WHEN Wickets>3 THEN 'Three-wickets haul'
    ELSE 'Normal bowling'
END AS performance_category
FROM india_bowl;
```

Result Grid			Filter Rows:
	player_name	performance_category	
▶	Arshdeep Singh	Normal Innings	
	Abhishek Sharma	Normal Innings	
	Tilak Varma	Normal Innings	
	Samson	Century	
	Axar Patel	Normal Innings	
	Hardik Pandya	Normal Innings	
	Rinku Singh	Normal Innings	
	Ravi Bishnoi	Normal Innings	
	Suryakumar Yadav	Normal Innings	
	Arshdeep Singh	Normal bowling	
	Avesh Khan	Normal bowling	
	Hardik Pandya	Normal bowling	
	Varun Chakaravar...	Normal bowling	
	Ravi Bishnoi	Normal bowling	
	Axar patel	Normal bowling	

136) Classify overs based on runs scored:

```
-- 136
select * from innings_over_by_over;

select overs ,
CASE
    WHEN Runs>10 THEN 'Productive over'
    WHEN Runs<5 THEN 'Economical over'
    ELSE 'Normal over'
END AS over_category
from Innings_over_by_over where innigs=1;
```

	overs	over_category
▶	1	Economical over
	2	Normal over
	3	Productive over
	4	Normal over
	5	Productive over
	6	Normal over
	7	Normal over
	8	Productive over
	9	Productive over
	10	Normal over
	11	Productive over
	12	Productive over
	13	Productive over
	14	Productive over
	15	Normal over
	16	Normal over
	17	Normal over
	18	Economical over
	19	Productive over
	20	Economical over

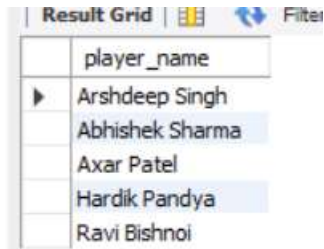
## EXISTS

137) Are there any matches where India had a bowler who took a 5-wicket haul and South Africa had a batsman who scored a century?

## ANY/SOME

138) identify matches where any Indian bowler took more wickets than the highest wicket-taker for South Africa

```
select * from india_bat;  
select * from india_bowl;  
select player_name from india_bat where player_name=ANY (select player_name from india_bat where Score<10 );
```



The screenshot shows a 'Result Grid' window with a 'Filter' button. It displays a list of player names from a database query. The names are: Arshdeep Singh, Abhishek Sharma, Axar Patel, Hardik Pandya, and Ravi Bishnoi. The first four names are highlighted with a blue background, while Ravi Bishnoi is not.

player_name
Arshdeep Singh
Abhishek Sharma
Axar Patel
Hardik Pandya
Ravi Bishnoi

139) Identify matches where any Indian bowler had a better economy rate than the best South African bowler

## REVOKE

140) Revoke SELECT Privilege:

141) Revoke DELETE Privilege:

## TRIGGERS

142) Trigger Creation and Modification:

- **Question:** How can I create a new trigger on the match\_summary table to automatically update the match\_winner column based on the final scores?



```

delimiter $$
CREATE TRIGGER update_score AFTER UPDATE ON innings_over_by_over
FOR EACH ROW
BEGIN
DECLARE var_indscore INT ;
declare var_sascore INT;
SELECT SUM(Runs) INTO var_indscore from innings_over_by_over where Innigs=1;
SELECT SUM(Runs) INTO var_sascore from innings_over_by_over where Innigs=2;
IF var_indscore > var_sascore THEN
UPDATE match_summary set Matchwinner='India__' WHERE Toss='South Africa' ;
ELSE
UPDATE match_summary set Matchwinner='Southafrica' WHERE Toss='South Africa';

END IF;
END
Delimiter $;

```

```

update innings_over_by_over set Runs=70 where overs=18 AND Innigs=2;

```

	Matchwinner
▶	Southafrica

- Question: How can I modify an existing trigger on the india\_bat table to also log the time of the update in a separate audit table?

```
-- -- -- TRIGGER 142
DELIMITER $$
CREATE TRIGGER audit_inbat AFTER INSERT ON india_bat
  for each ROW
  BEGIN
    DECLARE VAR_TIME DATETIME;
    DECLARE VAR_COL VARCHAR(20);
    SELECT NOW() INTO VAR_TIME ;
    SELECT min(player_name) INTO VAR_COL FROM india_bat ;
    insert into audit_table_indbat VALUES(1 , VAR_TIME, VAR_COL);
  END;

delimiter;

INSERT INTO india_bat VALUES(22,'rhn',33,33,33,33,33,'not out',null,'shashi');

select * from audit_table_indbat;
```

	sno	Time_of_up	updated_col
▶	1	21:34:52	Abhishek Sharma

### 143) Trigger Functionality and Logic:

- Question: How can I write a trigger on the `innings_over_by_over` table to calculate the current run rate after each over and update the `current_run_rate` column?

```
DELIMITER $$
```

```
CREATE TRIGGER RUN_CALC AFTER INSERT ON innings_over_by_over  
FOR EACH ROW
```

```
) BEGIN
```

```
    DECLARE var_total_run INT;  
    DECLARE var_total_over INT;  
    DECLARE var_total_rate FLOAT;
```

```
    SELECT MAX(overs) INTO var_total_over  
    FROM innings_over_by_over  
    WHERE Innigs = 2;
```

```
    SELECT Runs INTO var_total_run  
    FROM innings_over_by_over  
    WHERE Innigs = 2 AND overs = var_total_over;
```

```
    SET var_total_rate = var_total_run / var_total_over;
```

```
    UPDATE match_summary  
    SET run_rate = var_total_rate  
    WHERE Toss='South Africa';
```

```
~ END$$
```

```
DELIMITER ;
```

```
12 • INSERT INTO innings_over_by_over values (19,1,2,3,4,5,6,null,null,21,2,2,0,'ram','sita','sirii',null,2,null);
```

```
13
```

```
14 • select * from match_summary;
```

```
15
```

result Grid

Filter Rows:

Export:

Wrap Cell Content:

player_of_match	Toss	Match_date	Match_venue	Twiner	tchoosen	Matchwinner	Ind_total	Sa_total	run_rate
Sanju Samson	South Africa	2024-11-08 08:30:00	Kingsmead Durban	South Africa	opt to bowl	India__	202	141	1.10526

- Question: How can I create a trigger on the extrascores table to ensure that the total extra runs do not exceed a certain limit and throw an error if it does?

```
-- 143-b
Delimiter $$
create TRIGGER xtra_score_limit AFTER INSERT ON
extrascores FOR EACH ROW
BEGIN
DECLARE VAR_ind_extrascore INT;
DECLARE VAR_sa_extrascore INT;
SELECT Extrascore INTO VAR_ind_extrascore FROM extrascore where Team='India';
SELECT Extrascore INTO VAR_sa_extrascore FROM extrascore where Teaam='Southafrica';
CASE
WHEN Var_ind_extrascore >10 THEN
update match_summary SET extrascore_status='INDIA ESCORE MAX';

WHEN Var_sa_extrascore >10 THEN
update match_summary SET extrascore_status='SA ESCORE MAX';
WHEN Var_ind_extrascore <10 OR Var_sa_extrascore <10 THEN
update match_summary SET extrascore_status='WITHIN LIMIT';
ELSE
update match_summary SET extrascore_status='NO CHANGE';

END CASE;
END $$
```

DELIMITER \$

Result Grid									
Filter Rows:		Export:		Wrap Cell Content:					
Match_date	Match_venue	Twinner	tchoosen	Matchwinner	Ind_total	Sa_total	run_rate	extrascore_status	
4-11-08 08:30:00	Kingsmead Durban	South Africa	opt to bowl	India__	202	141	1.10526	WITHIN LIMIT	

## STORED PROCEDURES

144) Calculate Total Runs Scored by India in a Match:

- Input: Innings
- Output: Total runs scored by India

The screenshot shows a MySQL GUI window titled "Call stored procedure 1stt20.India\_Runs". The window has a text area for parameters and two buttons: "Execute" and "Cancel". The parameter "innings" is set to "1". Below the window, the SQL code for the stored procedure is displayed. The code is as follows:

```
1 CREATE DEFINER='root'@'localhost' PROCEDURE `India_Runs` (innings INT )
2 BEGIN
3     DECLARE EXIT HANDLER for sqlexception
4     BEGIN
5         SELECT 'SOMTHING WENT WRONG!!!' as Msg;
6     END;
7     IF innings=2 then
8     SELECT SUM(Runs) from innings_over_by_over where Innigs=innings;
9     ELSE
10    SELECT 'SOMTHING WENT WRONG!!!' as Msg;
11    end if;
12 END
```

Below the SQL code, a table with the result of the procedure is shown:

SUM(Runs)
202

145) Find the Highest Individual Score by a South African Batsman:

- Input: Matchid
- Output: Highest individual score and the batsman's name



The screenshot shows a database application window titled "Call stored procedure 1stt20.High\_SA\_INDI\_SCR". The dialog prompts the user to "Enter values for parameters of your procedure and click <Execute> to create an SQL editor and run the call:". A parameter "Matchid" is entered with the value "1" and a data type of "[IN] INT". Below the dialog, the SQL code for the stored procedure is displayed in an editor:

```

1 • CREATE DEFINER=`root`@`localhost` PROCEDURE `High_SA_INDI_SCR` (Matchid INT)
2 BEGIN
3 DECLARE EXIT handler for sqlexception
4 begin
5 select 'something is wrong!!';
6 END;
7 IF Matchid=1 THEN
8     select player_name ,Score from southafrica_bat where Score=
9     (select max(Score) from southafrica_bat);
10 ELSE
11     select 'wrong !! match id';
12 END IF;
13 END

```

At the bottom, a result table is shown with the following data:

	player_name	Score
▶	Gerald Coetzee	23

146) Find the Over-Wise Run-Rate of a Specific Innings:

- Input: Innings ID
- Output: Run-rate for each over of the innings

```
1 • CREATE DEFINER='root'@'localhost' PROCEDURE `RunRate_over`(innings INT)
2 BEGIN
3     DECLARE CONTINUE HANDLER FOR sqlexception
4     BEGIN
5         SELECT " ERROR OCCORED AND CONTINUED" ;
6     END;
7 CASE
8     WHEN innings=1 THEN
9         select overs, Runs/overs AS current_rr from innings_over_by_over where innigs=innings;
10    WHEN innings=2 THEN
11        select overs, Runs/overs AS current_rr from innings_over_by_over where innigs=innings;
12    ELSE
13        SELECT 'SOMthing went wrong!!';
14    END CASE;
15 END
```

Call stored procedure 1stt20.RunRate\_over

Enter values for parameters of your procedure and click <Execute> to create an SQL editor and run the call:

innings  [IN] INT


Execute Cancel

Result Grid		Filter Rows:
	overs	current_rr
▶ 1	2.0000	
2	5.0000	
3	4.0000	
4	2.5000	
5	3.0000	
6	1.1667	
7	0.7143	
8	1.7500	
9	1.6667	
10	0.9000	
11	1.0909	
12	1.0833	
13	1.3846	
14	1.4286	
15	0.3333	
16	0.5000	
17	0.4118	
18	0.1667	
19	0.6842	
20	0.2000	

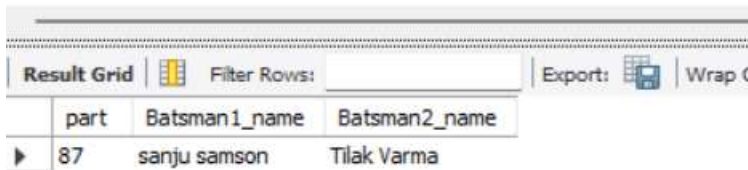
147) Find the Highest Partnership in a Match:

- **Input:** Match ID
- **Output:** Highest partnership and the names of the batsmen involved

```
1 • CREATE DEFINER='root'@'localhost' PROCEDURE `highestpartnership`( Inning INT)
2 BEGIN
3     declare part1 INT;
4     declare part2 INT;
5     declare part3 INT;
6     declare part4 INT;
7     declare part5 INT;
8     declare part1_sa INT;
9     declare part2_sa INT;
10    declare part3_sa INT;
11    declare part4_sa INT;
12    declare part5_sa INT;
13
14
15    select sum(Runs) INTO part1 from   innings_over_by_over where Batsman1_name='sanju samson' AND Batsman2_name='abhishek sharma';
16    -- part2
17    select sum(Runs) INTO part2 from   innings_over_by_over where Batsman1_name='sanju samson' AND Batsman2_name='Suryakumar Yadav';
18    -- part3
19    select sum(Runs) INTO part3 from   innings_over_by_over where Batsman1_name='sanju samson' AND Batsman2_name='Tilak Varma';
20    -- part4
21    select sum(Runs) INTO part4 from   innings_over_by_over where Batsman1_name='sanju samson' AND Batsman2_name='Hardik Pandya';
22    -- part5
23    select sum(Runs) INTO part5 from   innings_over_by_over where Batsman1_name='Rinku Singh' AND Batsman2_name='Hardik Pandya';
24
25
26
27    select sum(Runs) into part1_sa from   innings_over_by_over where Batsman1_name='Triston Stubbs ' AND Batsman2_name='Ryan Rickelton';
28    -- part2 13
29    select sum(Runs) into part2_sa from   innings_over_by_over where Batsman1_name='Heinrich Klaasen ' AND Batsman2_name='Ryan Rickelton';
30    -- part3
31    select sum(Runs) into part3_sa from   innings_over_by_over where Batsman1_name='Heinrich Klaasen ' AND Batsman2_name='David Miller';
32    -- part 4 14
33    select sum(Runs) into part4_sa from   innings_over_by_over where Batsman1_name='Gerald Coetzee' AND Batsman2_name='Marco Jansen ';
34    -- part5 28
35    select sum(Runs) into part5_sa from   innings_over_by_over where Batsman1_name='Gerald Coetzee' AND Batsman2_name='Keshav Maharaj';
36
37    CASE
38    WHEN Inning = 1 THEN
39
40        SELECT part,Batsman1_name,Batsman2_name  from max_part_ind where part=(SELECT max(part) from max_part_ind);
41    when Inning = 2 THEN
42
43
44        SELECT part,Batsman1_name,Batsman2_name  from max_part_sa where part=(SELECT max(part) from max_part_sa);
45    ELSE
46        select 'something went wrong!!!';
47
48    END CASE;
49    END
```



```
1 • call 1stt20.highestpartnership(1);
2
```



	part	Batsman1_name	Batsman2_name
▶	87	sanju samson	Tilak Varma

## FUNCTIONS

### 148) Aggregate Functions:

- What is the total number of runs scored by India in all matches?
- What is the average economy rate of South African bowlers?
- What is the highest individual score by an Indian batsman?
- What is the lowest individual score by a South African batsman?

### 149) Mathematical Functions:

- Calculate the run rate for each Indian innings.
- Calculate the strike rate for each South African batsman.
- Calculate the percentage of extras in each match.

150) Ranking Functions:

- a) Rank the Indian batsmen by their total runs scored in descending order.
- b) Rank the South African bowlers by their economy rate in ascending order.

```
-- 150 A
```

```
SELECT * FROM india_bat;
```

```
SELECT player_name ,  
       RANK() OVER (order by Score desc) as player_rank  
       from india_bat ORDER BY player_rank;
```

	player_name	player_rank
▶	Samson	1
	Tilak Varma	2
	shashi	2
	Suryakumar Yadav	4
	Rinku Singh	5
	Abhishek Sharma	6
	Axar Patel	6
	Arshdeep Singh	8
	Hardik Pandya	9
	Ravi Bishnoi	10

```
-- 150 b
```

```
SELECT * FROM southafrica_bowl;
```




```
SELECT player_name ,  
       RANK() OVER (order by Economy asc) as player_rank  
       from southafrica_bowl ORDER BY player_rank;
```

	player_name	player_rank
▶	Marco Jansen	1
	Keshav Maharaj	2
	Gerald Coetzee	3
	Aiden Markram	4
	Nqabayomi Peter	5
	Andile Simelane	6
	Patrick Kruger	7



## DATABASES : 1stt20



### TABLES : INNINGS\_OVER\_BY\_OVER

Result Grid  Filter Rows: <input type="text"/> Export:  Wrap Cell Content: 																			
	overs	B1	B2	B3	B4	B5	B6	Extra_ball1	Extra_ball2	Runs	4s	6s	Wickets	Batsman1_name	Batsman2_name	Bowler_name	catch_by	Innings	
▶	1	1	0	0	1	0	0	NULL	NULL	2	0	0	0	sanju samson	abhishek sharma	Marco Jansen	NULL	1	
	2	4	1	0	4	1	0	NULL	NULL	10	2	0	0	sanju samson	abhishek sharma	Aiden Markram	NULL	1	
	3	4	6	0	1	1	0	NULL	NULL	12	1	1	0	sanju samson	abhishek sharma	Keshav Maharaj	NULL	1	
	4	99	0	0	4	0	6	NULL	NULL	10	1	1	1	sanju samson	Suryakumar Yadav	Gerald Coetzee	Markram	1	
	5	4	6	1	4	0	0	NULL	NULL	15	2	1	0	sanju samson	Suryakumar Yadav	Marco Jansen	NULL	1	
	6	0	0	6	0	0	1	NULL	NULL	7	0	1	0	sanju samson	Suryakumar Yadav	Gerald Coetzee	NULL	1	
	7	0	1	1	1	1	1	NULL	NULL	5	0	0	0	sanju samson	Suryakumar Yadav	Keshav Maharaj	NULL	1	
	8	0	6	6	1	0	1	NULL	NULL	14	0	2	0	sanju samson	Suryakumar Yadav	Nqabayomi Peter	NULL	1	
	9	1	4	81	2	48	8	48	48	15	1	0	1	sanju samson	Tilak Varma	Patrick Kruger	Simelane	1	
	10	1	0	0	1	1	6	NULL	NULL	9	0	1	0	sanju samson	Tilak Varma	Andile Simelane	NULL	1	
	11	0	6	1	1	0	4	NULL	NULL	12	1	1	0	sanju samson	Tilak Varma	Keshav Maharaj	NULL	1	
	12	4	1	6	1	0	1	NULL	NULL	13	1	1	0	sanju samson	Tilak Varma	Nqabayomi Peter	NULL	1	
	13	1	4	4	6	48	1	1	NULL	18	2	1	0	sanju samson	Tilak Varma	Andile Simelane	NULL	1	
	14	2	4	6	1	6	1	NULL	NULL	20	1	2	0	sanju samson	Tilak Varma	Patrick Kruger	NULL	1	
	15	1	4	0	99	0	1	NULL	NULL	5	1	0	1	sanju samson	Hardik Pandya	Keshav Maharaj	Marco J...	1	
	16	1	1	6	99	0	0	NULL	NULL	8	0	1	1	Rinku Singh	Hardik Pandya	Nqabayomi Peter	Tristan ...	1	
	17	1	4	1	0	99	1	NULL	NULL	7	1	0	1	Rinku Singh	Axar Patel	Gerald Coetzee	Marco J...	1	
	18	0	0	1	0	2	0	NULL	NULL	3	0	0	0	Rinku Singh	Axar Patel	Marco Jansen	NULL	1	
	19	4	1	0	4	99	4	NULL	NULL	13	3	0	1	Arshdeep Singh	Axar Patel	Gerald Coetzee	Klaasen	1	
	20	48	99	0	1	8	0	1	99	4	0	0	2	Ravi Bishnoi	Arshdeep Singh	Marco Jansen	Tristan ...	1	
	1	0	4	4	99	1	0	NULL	NULL	9	2	0	0	Tristan Stubbs	Ryan Rickelton	Arshdeep Singh	Samson	2	
	2	0	4	4	1	0	0	NULL	NULL	9	2	0	0	Tristan Stubbs	Ryan Rickelton	Avesh Khan	NULL	2	
	3	0	1	0	0	48	6	1	NULL	9	0	1	0	Tristan Stubbs	Ryan Rickelton	Arshdeep Singh	NULL	2	
	4	0	2	99	1	4	6	NULL	NULL	13	1	1	1	Heinrich Klaasen	Ryan Rickelton	Avesh Khan	Suryaku...	2	
	5	0	1	48	1	0	0	0	NULL	3	0	0	0	Heinrich Klaasen	Ryan Rickelton	Hardik Pandya	NULL	2	
	6	0	99	0	4	0	48	0	NULL	5	1	0	0	Heinrich Klaasen	David Miller	Varun Chakarava...	Tilak Var...	2	
	7	1	1	2	4	0	1	NULL	NULL	9	1	0	0	Heinrich Klaasen	David Miller	Hardik Pandya	NULL	2	
	8	1	6	0	1	1	1	NULL	NULL	10	0	1	0	Heinrich Klaasen	David Miller	Varun Chakarava...	NULL	2	
	9	1	1	1	4	1	0	NULL	NULL	8	1	0	0	Heinrich Klaasen	David Miller	Ravi Bishnoi	NULL	2	
innings_over_by_over7 x																			
	10	0	1	0	1	0	0	NULL	NULL	2	0	0	0	Heinrich Klaasen	David Miller	Varun Chakarava...	NULL	2	
	11	0	0	0	0	0	1	NULL	NULL	1	0	0	0	Heinrich Klaasen	David Miller	Ravi Bishnoi	NULL	2	
	12	1	6	99	1	99	0	NULL	NULL	8	0	1	2	Patrick Kruger	Marco Jansen	Varun Chakarava...	Avesh K...	2	
	13	99	6	0	0	99	0	NULL	NULL	6	0	1	2	Gerald Coetzee	Marco Jansen	Ravi Bishnoi	Hardik P...	2	
	14	1	1	4	1	0	1	NULL	NULL	8	1	0	0	Gerald Coetzee	Marco Jansen	Axar Patel	NULL	2	
	15	6	1	0	6	0	99	NULL	NULL	13	0	2	1	Gerald Coetzee	Keshav Maharaj	Ravi Bishnoi	Hardik ...	2	
	16	1	0	1	48	6	6	0	NULL	15	0	2	0	Gerald Coetzee	Keshav Maharaj	Hardik Pandya	NULL	2	
	17	1	48	48	1	0	2	99	0	6	0	0	1	Nqabayomi Peter	Keshav Maharaj	Arshdeep Singh	NULL	2	
	18	0	1	4	1	99	NULL	NULL	NULL	6	1	0	1	Nqabayomi Peter	Nqabayomi Peter	Avesh Khan	NULL	2	








## MATCH SUMMARY

	player_of_match	Toss	Match_date	Match_venue	Twinner	tchoosen
▶	Sanju Samson	South Africa	2024-11-08 08:30:00	Kingsmead Durban	South Africa	opt to bowl

## Extra score

Result Grid  Filter Rows: <input type="text"/> Export: 					
	Team	Extrascore	wides	No_balls	Leg_bye
▶	India	6	6	0	0
	Southafrika	8	5	3	0









## INDIA\_BAT

Result Grid  Filter Rows: <input type="text"/> Edit:    Export/Import:   Wrap Cell Content: 										
	Jno	Batsmen_style	Score	Balls	Fours	Sixes	Strike_rate	wicket_status	Wicketby	player_name
▶	2	LHB	5	4	1	0	125	not out	null	Arshdeep Singh
	4	LHB	7	8	1	0	87	out	Gerald Coetzee	Abhishek Sharma
	9	LHB	33	18	3	2	183	out	Maharaj	Tilak Varma
	14	RHB	103	50	7	10	214	out	Nqabayomzi Peter	Samson
	20	LHB	7	7	1	0	100	out	Marco Jansen	Axar Patel
	33	RHB	2	6	0	0	33	out	Gerald Coetzee	Hardik Pandya
	35	LHB	11	10	2	0	110	out	Gerald Coetzee	Rinku Singh
	56	RHB	1	3	0	0	33	Run_out	Klaasen/Marco Jansen	Ravi Bishnoi
	63	RHB	21	17	2	1	123	out	Patrick Kruger	Suryakumar Yadav
•	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

## INDIA\_BOWL

Result Grid   Filter Rows: <input type="text"/>   Export:    Wrap Cell Content: 								
	Overs	Maiden	Runs	Wickets	Economy	Player_name	Nb	Wd
▶	3	0	25	1	8	Arshdeep Singh	0	3
	2	0	28	2	10	Avesh Khan	0	0
	3	0	27	0	9	Hardik Pandya	0	2
	4	0	25	3	6	Varun Chakaravathy	0	1
	4	0	8	0	7	Ravi Bishnoi	0	0
	1	2	8	0	8	Ravi Bishnoi	0	0

SOUTHAFRICA\_BAT

Result Grid   Filter Rows: <input type="text"/>   Edit:      Export/Import:     Wrap Cell Content: 										
	Jno	Batsmen_style	Score	Balls	Fours	Sixes	Strike_rate	wicket_status	wicketby	player_name
▶	5	RHB	23	11	0	3	203	out	Suryakumar Yadav	Gerald Coetzee
	10	LHB	18	22	2	1	81	out	Varun Chakaravathy	David Miller
	16	RHB	5	9	0	0	55	out	Avesh Khan	Keshav Maharaj
	22	RHB	6	4	0	1	150	out	Ravi Bishnoi	Andile Simelane
	30	RHB	11	11	0	1	100	out	Avesh Khan	Tristan Stubbs
	36	RHB	12	8	1	1	150	out	Ravi Bishnoi	Marco Jansen
	44	LHB	21	11	3	1	190	out	Varun Chakaravathy	Ryan Rickelton
	45	RHB	25	22	2	1	113	out	Varun Chakaravathy	Heinrich Klaasen
	48	RHB	1	2	0	0	50	out	Ravi Bishnoi	Patrick Kruger
	90	RHB	5	3	1	0	166	not out		Nqabayomzi Peter
	94	RHB	8	4	2	0	200	out	Arshdeep Singh	Aiden Markram
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

SOUTHAFRICA\_BOWL

<div> <div>Result Grid</div> <div>   Filter Rows: </div> <div> Export:  </div> <div> Wrap Cell Content:  </div> </div>									
	Overs	Maiden	Runs	Wickets	Economy	Jno	Player_name	NB	WD
▶	4	0	24	1	6	36	Marco Jansen	1	1
	1	0	10	0	10	94	Aiden Markram	0	0
	4	0	34	1	8	16	Keshav Maharaj	0	0
	4	0	37	3	9	5	Gerald Coetzee	0	0
	3	0	35	1	11	90	Nqabayomi Peter	0	0
	2	0	35	1	17	48	Patrick Kruger	2	3
	2	0	27	0	13	22	Andile Simelane	0	1



