

CRUD OPERATION AND AGGREGATE FUNCTION

```
mysql> use mydatabase;
```

```
Database changed
```

```
MYSQL> SELECT * FROM FOOTBALL_PLAYERS;
```

player_id	match_id	player_name	country	total_matches	total_goals	debut_year
last_match_year						
pid01	mid01 2020	Lionel Messi	Argentina	100	35	2010
pid02	mid02 2021	Cristiano Ronaldo	Portugal	80	20	2012
pid03	mid03 2019	Neymar Jr	Brazil	120	50	2009
pid04	mid04 2021	Kylian Mbappe	France	60	10	2015
pid05	mid05 2020	Mohamed Salah	Egypt	90	40	2011
pid06	mid06 2022	Robert Lewandowski	Poland	110	45	2010
pid07	mid07 2020	Kevin De Bruyne	Belgium	70	15	2014
pid08	mid08 2019	Sergio Ramos	Spain	95	35	2011
pid09	mid09 2021	Paul Pogba	France	85	25	2013
pid10	mid10 2018	Gareth Bale	Wales	130	60	2008
pid11	mid11 2020	Antoine Griezmann	France	75	22	2013
pid12	mid12 2021	Luka Modric	Croatia	50	10	2016
pid13	mid13 2019	Kane Harry	England	65	18	2014
pid14	mid14 2020	Luis Suarez	Uruguay	105	42	2011
pid15	pid15 2021	Zlatan Ibrahimovic	Sweden	115	48	2010

```
15 rows in set (0.00 sec)
```

CRUD OPERATION

MYSQL> -- CREATE A NEW RECORD

```
mysql> INSERT INTO football_players (player_id, match_id, player_name, country,
total_matches, total_goals, debut_year, last_match_year)
```

```
-> VALUES ('pid16', 'mid16', 'Eden Hazard', 'Belgium', 55, 12, 2016, 2021);
```

Query OK, 1 row affected (0.00 sec)

mysql>

MYSQL> -- READ A RECORD

```
mysql> SELECT * FROM football_players
```

```
-> WHERE player_id = 'pid01';
```

player_id	match_id	player_name	country	total_matches	total_goals	debut_year	last_match_year
pid01	mid01	Lionel Messi	Argentina	100	35	2010	2020

1 row in set (0.00 sec)

mysql>

MYSQL> -- UPDATE A RECORD

```
mysql> UPDATE football_players
```

```
-> SET total_goals = 35
```

```
-> WHERE player_id = 'pid01';
```

Query OK, 0 rows affected (0.00 sec)

Rows matched: 1 Changed: 0 Warnings: 0

mysql>

MYSQL> -- DELETE A RECORD

```
mysql> DELETE FROM football_players
```

```
-> WHERE player_id = 'pid16';
```

Query OK, 1 row affected (0.00 sec)

AGGREGATE FUNCTION

mysql>

MYSQL> -- COUNT THE TOTAL NUMBER OF PLAYERS

mysql> SELECT COUNT(*) AS total_players

-> FROM football_players;

+-----+

| total_players |

+-----+

| 15 |

+-----+

1 row in set (0.00 sec)

MYSQL> -- SUM OF TOTAL MATCHES

mysql> SELECT SUM(total_matches) AS total_matches

-> FROM football_players;

+-----+

| total_matches |

+-----+

| 1350 |

+-----+

1 row in set (0.00 sec)

mysql>

MYSQL> -- AVERAGE NUMBER OF GOALS

mysql> SELECT AVG(total_goals) AS average_goals

-> FROM football_players;

+-----+

| average_goals |

+-----+

```
|          31.6667 |
```

```
+-----+
```

```
1 row in set (0.00 sec)
```

```
mysql>
```

```
mysql> -- Minimum number of matches played
```

```
mysql> SELECT MIN(total_matches) AS min_matches
```

```
    -> FROM football_players;
```

```
+-----+
```

```
| min_matches |
```

```
+-----+
```

```
|          50 |
```

```
+-----+
```

```
1 row in set (0.00 sec)
```

```
mysql>
```

```
MYSQL> -- MAXIMUM NUMBER OF GOALS SCORED
```

```
mysql> SELECT MAX(total_goals) AS max_goals
```

```
    -> FROM football_players;
```

```
+-----+
```

```
| max_goals |
```

```
+-----+
```

```
|          60 |
```

```
+-----+
```

```
1 row in set (0.00 sec)
```

```
MYSQL> -- TOTAL GOALS BY COUNTRY
```

```
mysql> SELECT country, SUM(total_goals) AS total_goals
```

```
    -> FROM football_players
```

```
    -> GROUP BY country;
```

```
+-----+-----+
```

```
| country  | total_goals |
```

```
+-----+-----+
```

```
| Argentina |          35 |
```

```
| Portugal  |          20 |
```

Brazil		50	
France		57	
Egypt		40	
Poland		45	
Belgium		15	
Spain		35	
Wales		60	
Croatia		10	
England		18	
Uruguay		42	
Sweden		48	

+-----+-----+

MYSQL> -- AVERAGE GOALS BY DEBUT YEAR

mysql> SELECT debut_year, AVG(total_goals) AS average_goals

-> FROM football_players

-> GROUP BY debut_year;

+-----+-----+

debut_year		average_goals	
------------	--	---------------	--

+-----+-----+

	2010		42.6667	
--	------	--	---------	--

	2012		20.0000	
--	------	--	---------	--

	2009		50.0000	
--	------	--	---------	--

	2015		10.0000	
--	------	--	---------	--

	2011		39.0000	
--	------	--	---------	--

	2014		16.5000	
--	------	--	---------	--

	2013		23.5000	
--	------	--	---------	--

	2008		60.0000	
--	------	--	---------	--

	2016		10.0000	
--	------	--	---------	--

+-----+-----+