FIFA WORLDCUP 2022

By Tejas Patil
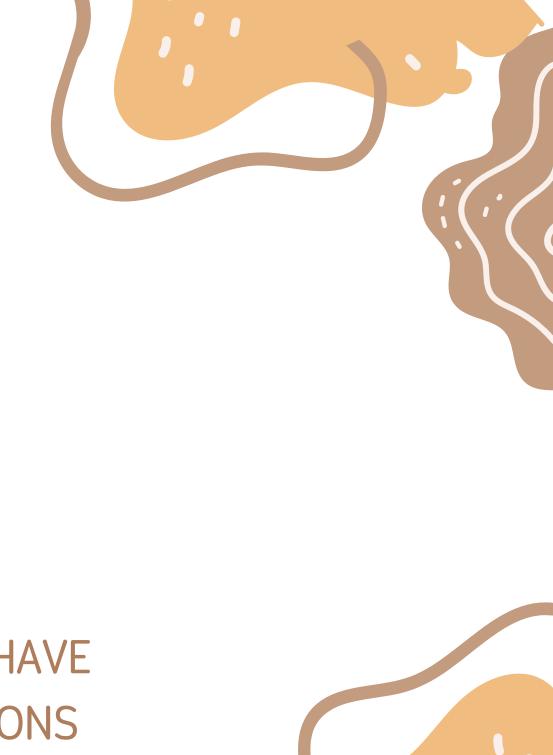
HELLO!
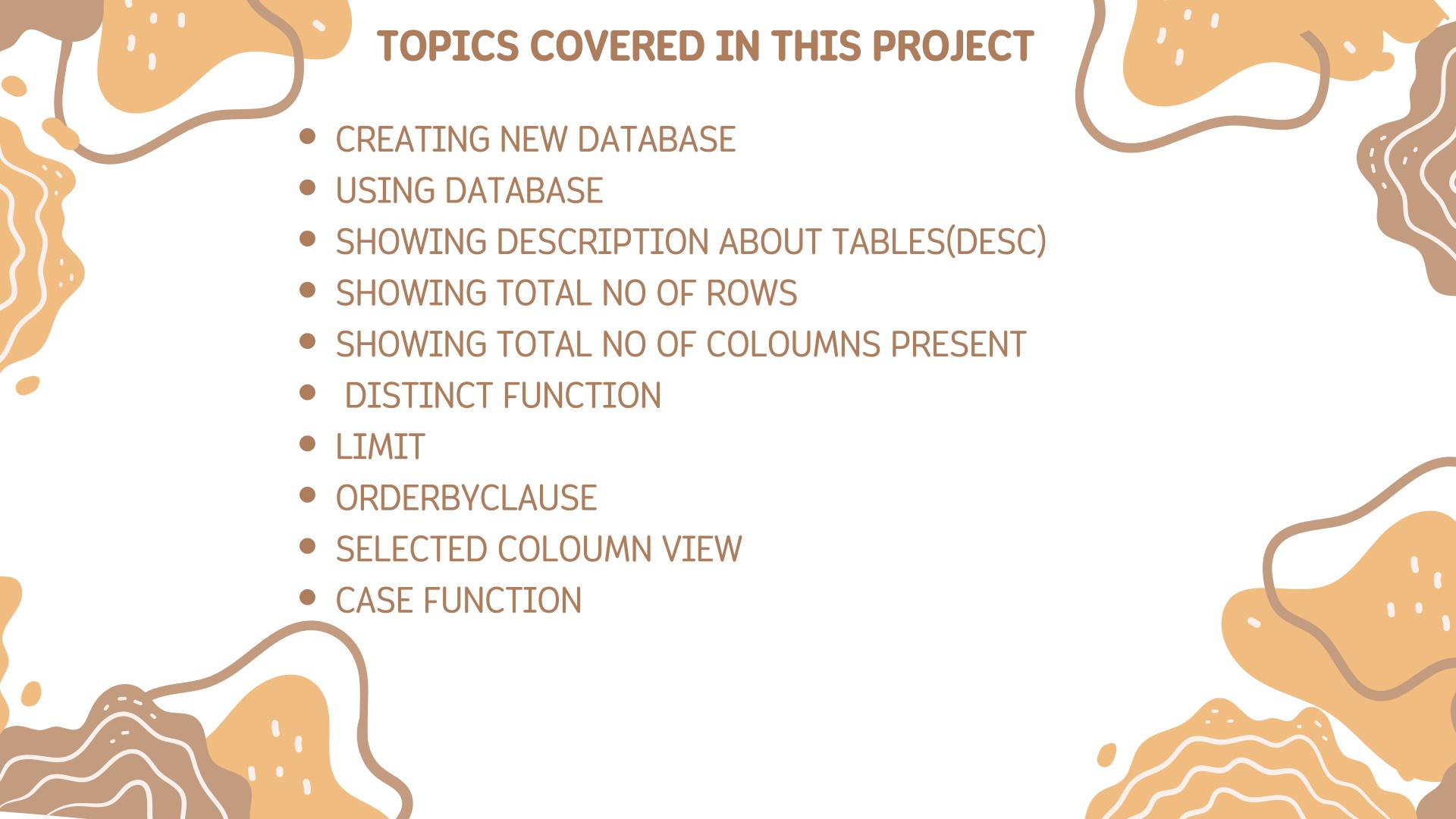
MYSELF TEJAS PATIL AND IN THIS PROJECT I HAVE UTILIZE ALL SQL QUERIES TO SOLVE QUESTIONS BASED ON "FIFA WORLDCUP"

PROJECT GOALS

- This project delves into the rich data of the world's most prestigious football tournament, leveraging the power of MySQL to analyze and extract insights from the matches and player statistics. By combining detailed match data with squad information, this project provides a comprehensive view of the tournament, allowing us to explore patterns, trends, and key metrics that define the essence of the FIFA World Cup.

TOPICS COVERED IN THIS PROJECT

- CREATING NEW DATABASE
- USING DATABASE
- SHOWING DESCRIPTION ABOUT TABLES(DESC)
- SHOWING TOTAL NO OF ROWS
- SHOWING TOTAL NO OF COLOUMNS PRESENT
- DISTINCT FUNCTION
- LIMIT
- ORDERBYCLAUSE
- SELECTED COLOUMN VIEW
- CASE FUNCTION

TOPICS COVERED IN THIS PROJECT

- DATA AGGREGATION
- LIKE / WILDCARD OPERATOR
- JOINS
- SUBQUERIES
- VIEWS

DATABASE CREATION AND DESCRIPTION OF FIFA WORLDCUP

```sql
create database Fifa_Worldcup;
use fifa_worldcup;
 select * from worldcups;


 -- SHOWING THE DESCRIPTION ABOUT THE DATA--
 DESC worldcups;
 DESC worldcup_groups;
 DESC worldcup_squads;
 DESC worldcup_matches;


 -- ANALYZING WITH PARTICULAR TABLE DATA--
 SELECT * FROM WORLDCUPS;
 SELECT * FROM worldcup_groups;
 SELECT * FROM worldcup_squads;
 SELECT * FROM worldcup_matches;
```
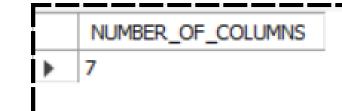
SHOWING TOTAL NUMBER OF ROWS & COLOUMNS

```sql
SELECT COUNT(*) AS TOTAL_NO_OF_ROWS FROM WORLDCUPS;
-- TOTAL NUMBER OF ROWS
SELECT COUNT(*) AS TOTAL_NO_OF_ROWS FROM worldcup_groups;
```
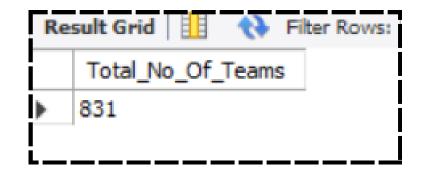
TOTAL_NO_OF_ROWS
32

```sql
SELECT COUNT(*) AS NUMBER_OF_COLUMNS
FROM INFORMATION_SCHEMA. COLUMNS
WHERE table_schema = 'fifa_worldcup' AND table_name = 'WORLDCUP_MATCHES';
```
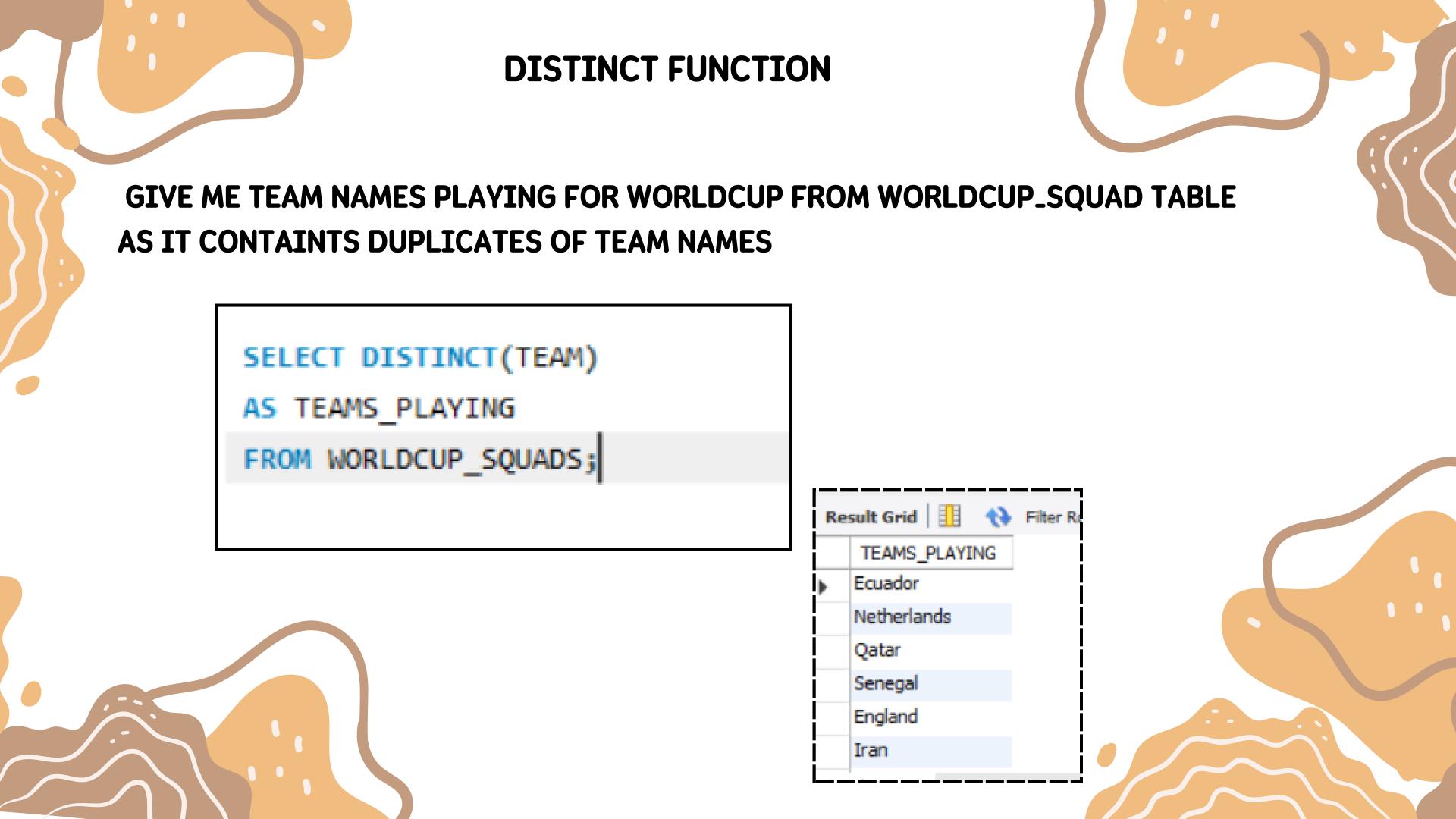
NUMBER_OF_COLUMNS
7

RETRIVE THE TOTAL NO OF TEAMS PLAYING FROM WORLDCUP_SQUADS TABLE

```sql
select count(team)
  as Total_No_Of_Teams
  from worldcup_squads;
```

Result Grid	Filter Rows:
Total_No_Of_Teams
831

DISTINCT FUNCTION

GIVE ME TEAM NAMES PLAYING FOR WORLDCUP FROM WORLDCUP_SQUAD TABLE
AS IT CONTAINTS DUPLICATES OF TEAM NAMES

```
SELECT DISTINCT(TEAM)
AS TEAMS_PLAYING
FROM WORLDCUP_SQUADS;
```

| Result Grid | | | Filter R |

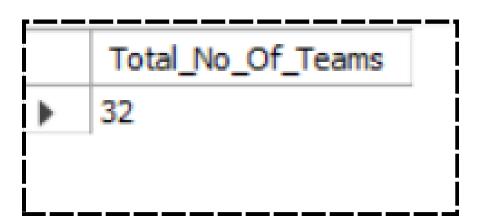| TEAMS_PLAYING |
| --- |
| Ecuador |
| Netherlands |
| Qatar |
| Senegal |
| England |
| Iran |

DISTINCT FUNCTION

AS BELOW QUERY GIVES THE TOTAL NO OF TEAMS PLAYING WITHOUT DUPLICATES
TO OVERCOME

```sql
select count(DISTINCT(TEAM))
as Total_No_Of_Teams
 from worldcup_squads;
```

Total_No_Of_Teams
32

LIMIT & ORDERBY CLAUSE

TO SEE THE FIRST 10 RECORDS OF WORLDCUP TABLE

```sql
SELECT * FROM worldcups  LIMIT 10;
```

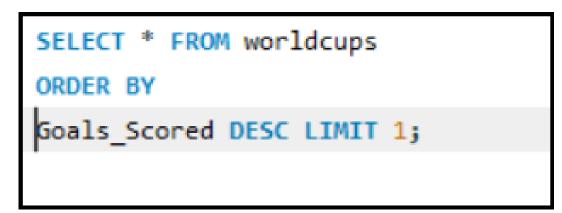| Year	Host_Country	Winner	Runners_Up	Third	Fourth	Goals_Scored	Qualified_Teams	Matches_Played
1930	Uruguay	Uruguay	Argentina	USA	Yugoslavia	70	13	18
1934	Italy	Italy	Czechoslovakia	Germany	Austria	70	16	17
1938	France	Italy	Hungary	Brazil	Sweden	84	15	18
1950	Brazil	Uruguay	Brazil	Sweden	Spain	88	13	22
1954	Switzerland	Germany FR	Hungary	Austria	Uruguay	140	16	26
1958	Sweden	Brazil	Sweden	France	Germany FR	126	16	35
1962	Chile	Brazil	Czechoslovakia	Chile	Yugoslavia	89	16	32

TO SEE THE LAST 5 RECORDS OF WORLDCUP TABLE

```sql
SELECT * FROM WORLDCUPS ORDER BY YEAR DESC LIMIT 5;
```

Year	Host_Country	Winner	Runners_Up	Third	Fourth	Goals_Scored	Qualified_Teams	Matches_Played
2018	Russia	France	Croatia	Belgium	England	169	32	64
2014	Brazil	Germany	Argentina	Netherlands	Brazil	171	32	64
2010	South Africa	Spain	Netherlands	Germany	Uruguay	145	32	64
2006	Germany	Italy	France	Germany	Portugal	147	32	64
2002	Korea/Japan	Brazil	Germany	Turkey	Korea Republic	161	32	64

LIMIT & ORDERBY CLAUSE

GIVE ME THE TOP 1ST COUNTRY DETAILS WITH MAX GOALS SCORED

```sql
SELECT * FROM worldcups
ORDER BY
Goals_Scored DESC LIMIT 1;
```

Year	Host_Country	Winner	Runners_Up	Third	Fourth	Goals_Scored	Qualified_Teams	Matches_Played
1998	France	France	Brazil	Croatia	Netherlands	171	32	64

GIVE ME THE 2ND TOP COUNTRY WITH FIFA RANKING

```sql
SELECT * FROM worldcup_groups
order by fifa_ranking
desc limit 1,1;
```

Group	Team	FIFA_Ranking
C	Saudi Arabia	51

LIKE / WILDCARD OPERATOR

FIND THE PLAYER FROM WORLDCUP_SQUADS WHERE POSTION OF PLAYER IS GOALKEEPER AND PLAYER NAME STARTS WITH A

```sql
SELECT COUNT(DISTINCT(PLAYER))
FROM worldcup_squads
WHERE POSITION ='GOALKEEPER'AND PLAYER LIKE '%A';
```

Result Grid	Filter Rows:
COUNT(DISTINCT(PLAYER))	
15	

CASE FUNCTION

CATEGORIZE COLOUMN GOALS_SCORED FROM WORLDCUPS TABLE BASED ON NO OF GOALS SCORES USING CASE FUNCTION

```sql
SELECT YEAR,HOST_COUNTRY,WINNER,GOALS_SCORED,
CASE
WHEN  Goals_Scored < 100 THEN 'Low Scoring'
        WHEN Goals_Scored BETWEEN 100 AND 150 THEN 'Moderate Scoring'
        WHEN Goals_Scored > 150 THEN 'High Scoring'
        ELSE 'Unknown Category'
    END AS Scoring_Category
FROM worldcups;
```
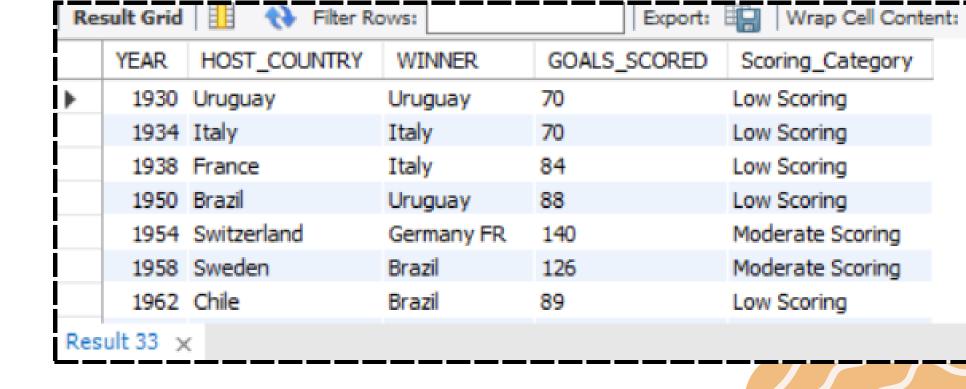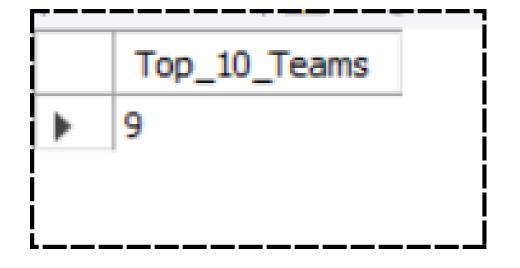
Result Grid	Filter Rows:		Export:	Wrap Cell Content:
YEAR	HOST_COUNTRY	WINNER	GOALS_SCORED	Scoring_Category
1930	Uruguay	Uruguay	70	Low Scoring
1934	Italy	Italy	70	Low Scoring
1938	France	Italy	84	Low Scoring
1950	Brazil	Uruguay	88	Low Scoring
1954	Switzerland	Germany FR	140	Moderate Scoring
1958	Sweden	Brazil	126	Moderate Scoring
1962	Chile	Brazil	89	Low Scoring

Result 33 ✕

DATA AGGREGATION

LIST THE NO OF TEAMS IN FIFAWORLDCUP 2022 WITH OR HAD FIFA RANKING WITH 10 OR LESS

```sql
SELECT COUNT(*) AS Top_10_Teams

FROM worldcup_groups

WHERE FIFA_Ranking <= 10;
```

Top_10_Teams
9

DATA AGGREGATION

WHICH WORLDCUP HAD THE HIGHEST NUMBER OF MATCHES PLAYED

```sql
SELECT YEAR,MATCHES_PLAYED
FROM worldcups
WHERE MATCHES_PLAYED = (SELECT MAX(MATCHES_PLAYED)FROM WORLDCUPS);
```

YEAR	MATCHES_PLAYED
1998	64
2002	64
2006	64
2010	64
2014	64
2018	64

DATA AGGREGATION

TOTAL NUMBER OF MATCHES PLAYED ACROSS ALL THE WORLDCUPS

```sql
SELECT SUM(MATCHES_PLAYED) AS TOTAL_MATCHES
FROM WORLDCUPS;
```

	TOTAL_MATCHES
▶	900

DATA AGGREGATION

ACQUIRE THE ROUND OF AVERAGE OF QUALIFIED TEAMS FROM TABLE

```sql
SELECT
    ROUND(AVG(QUALIFIED_TEAMS)) AS AVERAGE_QUALIFIED_TEAMS
FROM
    worldCUPS;
```

AVERAGE_QUALIFIED_TEAMS
22

DATA AGGREGATION

WHICH HOME_TEAM LIES IN THE NOV 2022

```sql
SELECT YEAR,DATE,HOME_TEAM
FROM worldcup_matches
WHERE EXTRACT(MONTH FROM DATE)=11;
```

YEAR	DATE	HOME_TEAM
2022	2022-11-20	Qatar
2022	2022-11-21	Senegal
2022	2022-11-21	England
2022	2022-11-21	United States
2022	2022-11-22	France
2022	2022-11-22	Denmark
2022	2022-11-22	Mexico

worldcup_matches 38

DATA AGGREGATION

LIST ALL TEAMS THAT EITHER WON THE WORLD CUP OR WERE PART OF THE 2022 WORLD CUP GROUPS

```
SELECT
    Winner AS Team
FROM
    worldcups
UNION
SELECT Team
FROM worldcup_groups;
```

Team
Uruguay
Italy
Germany FR
Brazil
England
Argentina
France

Result 39 ×

DATA AGGREGATION

LIST ALL YEAR OF WHERE WORLDCUP WAS HOSTED OR WON BY BRAZIL

```sql
SELECT Year
FROM worldcups
WHERE Host_Country = 'Brazil'
UNION
SELECT Year
FROM worldcups
WHERE
    Winner = 'Brazil';
```

Result Grid	
	Year
▶	1950
	2014
	1958
	1962
	1970
	1994
	2002

Result 40 ✕

JOINS

INNER JOIN

FIND THE FIFA RANKING OF WINNING TEAM OF EACH WORLDCUP

```sql
SELECT
    wc.Year,
    wc.Winner,
    g.FIFA_Ranking
FROM
    worldcups wc
INNER JOIN
    worldcup_groups g ON wc.Winner = g.Team;
```

Year	Winner	FIFA_Ranking
1966	England	5
1986	Argentina	3
1978	Argentina	3
2018	France	4
1998	France	4
2010	Spain	7
2014	Germany	11

JOINS

LEFT JOIN

RETRIEVE ALL MATCHES ALONG WITH ANY CORRESPONDING SQUAD INFORMATION, INCLUDING MATCHES THAT MIGHT NOT HAVE ANY SQUADS.

```sql
SELECT
    m.ID,
    m.Date,
    m.Stage,
    m.Home_Team,
    m.Away_Team,
    s.Team,
    s.Position,
    s.Player,
    s.Club
FROM
    worldcup_matches AS m
LEFT JOIN
    worldcup_squads AS s
ON
    m.ID = s.ID;
```

ID	Date	Stage	Home_Team	Away_Team	Team	Position	Player	Club
1	2022-11-20	Group stage	Qatar	Ecuador	Ecuador	Goalkeeper	Hernán Galíndez	Aucas
2	2022-11-21	Group stage	Senegal	Netherlands	Ecuador	Defender	Félix Torres	Santos Laguna
3	2022-11-21	Group stage	England	Iran	Ecuador	Defender	Piero Hincapié	Bayer Leverkusen
4	2022-11-21	Group stage	United States	Wales	Ecuador	Defender	Robert Arboleda	São Paulo
5	2022-11-22	Group stage	France	Australia	Ecuador	Midfielder	José Cifuentes	Los Angeles FC

Result 47 ×

JOINS

RIGHT JOIN

RETRIEVE ALL SQUADS AND THE CORRESPONDING MATCH DETAILS, INCLUDING SQUADS THAT MIGHT NOT BE LINKED TO ANY MATCH

```
SELECT
    s.ID,
    s.Team,
    s.Player,
    s.Position,
    s.Club,
    m.Date,
    m.Stage,
    m.Home_Team,
    m.Away_Team
FROM
    worldcup_squads AS s
RIGHT JOIN
    worldcup_matches AS m
ON
    s.ID = m.ID;
```

ID	Team	Player	Position	Club	Date	Stage	Home_Team	Away_Team
1	Ecuador	Hernán Galíndez	Goalkeeper	Aucas	2022-11-20	Group stage	Qatar	Ecuador
2	Ecuador	Félix Torres	Defender	Santos Laguna	2022-11-21	Group stage	Senegal	Netherlands
3	Ecuador	Piero Hincapié	Defender	Bayer Leverkusen	2022-11-21	Group stage	England	Iran
4	Ecuador	Robert Arboleda	Defender	São Paulo	2022-11-21	Group stage	United States	Wales
5	Ecuador	José Cifuentes	Midfielder	Los Angeles FC	2022-11-22	Group stage	France	Australia

Result 48 ×

JOINS

FULL OUTER JOIN

LIST ALL MATCHES AND THEIR SQUADS, INCLUDING MATCHES WITHOUT ANY SQUADS AND SQUADS WITHOUT ANY MATCHES

```sql
SELECT
    m.ID,
    m.Date,
    m.Stage,
    m.Home_Team,
    m.Away_Team,
    s.Team,
    s.Player,
    s.Position,
    s.Club
FROM
    worldcup_matches AS m
LEFT JOIN
    worldcup_squads AS s
ON
    m.ID = s.ID
```

```sql
UNION

SELECT
    m.ID,
    m.Date,
    m.Stage,
    m.Home_Team,
    m.Away_Team,
    s.Team,
    s.Player,
    s.Position,
    s.Club
FROM
    worldcup_squads AS s
RIGHT JOIN
    worldcup_matches AS m
ON
    s.ID = m.ID;
```

ID	Date	Stage	Home_Team	Away_Team	Team	Player	Position	Club
1	2022-11-20	Group stage	Qatar	Ecuador	Ecuador	Hernán Galíndez	Goalkeeper	Aucas
2	2022-11-21	Group stage	Senegal	Netherlands	Ecuador	Félix Torres	Defender	Santos Laguna
3	2022-11-21	Group stage	England	Iran	Ecuador	Piero Hincapié	Defender	Bayer Leverkusen
4	2022-11-21	Group stage	United States	Wales	Ecuador	Robert Arboleda	Defender	São Paulo
5	2022-11-22	Group stage	France	Australia	Ecuador	José Cifuentes	Midfielder	Los Angeles FC
6	2022-11-22	Group stage	Denmark	Tunisia	Ecuador	William Pacho	Defender	Antwerp
7	2022-11-22	Group stage	Mexico	Poland	Ecuador	Pervis Estupiñán	Defender	Brighton & Hove Albion
8	2022-11-22	Group stage	Argentina	Saudi Arabia	Ecuador	Carlos Gruezo	Midfielder	FC Augsburg
9	2022-11-23	Group stage	Belgium	Canada	Ecuador	Ayrton Preciado	Midfielder	Santos Laguna

VIEWS

CREATING VIEW TO JOIN WORLDCP_MATCHES WITH WORLD_CUPSQUADS

```sql
CREATE VIEW match_squad_views1
SELECT
    ID,
    Date,
    Stage,
    Home_Team,
    Away_Team,
    Team,
    Position,
    Player,
    Age,
    League,
    Club
FROM
    worldcup_matches
JOIN
    worldcup_squads
    USING(ID);
```

```sql
-- TO VIEW THW CREATED VIEW

SELECT * FROM MATCH_SQUAD_VIEWS1;
```

ID	Date	Stage	Home_Team	Away_Team	Team	Position	Player	Age	League	Club
1	2022-11-20	Group stage	Qatar	Ecuador	Ecuador	Goalkeeper	Hernán Galíndez	35	Ecuador	Aucas
2	2022-11-21	Group stage	Senegal	Netherlands	Ecuador	Defender	Félix Torres	25	Mexico	Santos Laguna
3	2022-11-21	Group stage	England	Iran	Ecuador	Defender	Piero Hincapié	20	Germany	Bayer Leverkusen
4	2022-11-21	Group stage	United States	Wales	Ecuador	Defender	Robert Arboleda	31	Brazil	São Paulo
5	2022-11-22	Group stage	France	Australia	Ecuador	Midfielder	José Cifuentes	23	United States	Los Angeles FC
6	2022-11-22	Group stage	Denmark	Tunisia	Ecuador	Defender	William Pacho	21	Belgium	Antwerp

VIEWS

LIST ALL PLAYERS FROM A SPECIFIC MATCH

```sql
SELECT Player, Position, Team
FROM match_squad_views1
WHERE ID = 1;
```

Player	Position	Team
Hernán Galíndez	Goalkeeper	Ecuador

FIND MATCHES WHERE PLAYERS FROM A SPECIFIC CLUB PARTICIPATED

```sql
SELECT DISTINCT Date, Home_Team, Away_Team
FROM match_squad_views1
WHERE Club = 'Bayer Leverkusen';
```

Date	Home_Team	Away_Team
2022-11-21	England	Iran
2022-12-04	1D	2C

COUNT THE NUMBER OF PLAYERS FROM EACH TEAM IN A SPECIFIC MATCH

```sql
SELECT Team, COUNT(Player) AS PlayerCount
FROM match_squad_views1
WHERE ID = 1
GROUP BY Team;
```

Team	PlayerCount
Ecuador	1

SUBQUERIES

FIND PLAYERS WHO HAVE SCORED MORE GOALS THAN THE AVERAGE NUMBER OF GOALS SCORED BY ALL PLAYERS

```
SELECT player
FROM worldcup_squads
WHERE goals > (SELECT AVG(goals) FROM worldcup_squads);
```

player
▶ Michael Estrada
Enner Valencia (captain)
Ángel Mena
Gonzalo Plata
Virgil van Dijk (captain)
Steven Bergwijn

worldcup_squads 55 ✕

SUBQUERIES

IN WHICH YEAR DID THE WORLD CUP HAVE THE MOST PARTICIPATING TEAMS?

```sql
SELECT year, Host_country
FROM worldcups
WHERE Host_Country = (
    SELECT MAX(Host_Country)
    FROM worldcups
);
```

year	Host_country
1994	USA

FIND ALL MATCHES WHERE A PLAYER AGED 30 OR ABOVE PARTICIPATED

```sql
SELECT *
FROM worldcup_matches
WHERE ID IN (
    SELECT ID
    FROM worldcup_squads
    WHERE Age >= 30
);
```

ID	Year	Date	Stage	Home_Team	Away_Team	Host_Team
1	2022	2022-11-20	Group stage	Qatar	Ecuador	TRUE
4	2022	2022-11-21	Group stage	United States	Wales	FALSE
13	2022	2022-11-24	Group stage	Switzerland	Cameroon	FALSE
15	2022	2022-11-24	Group stage	Portugal	Ghana	FALSE
22	2022	2022-11-26	Group stage	Poland	Saudi Arabia	FALSE
27	2022	2022-11-27	Group stage	Croatia	Canada	FALSE

worldcup_matches 57

SUBQUERIES

LIST THE CLUBS THAT HAVE PLAYERS WHO PARTICIPATED IN MATCHES HOSTED BY QATAR

```sql
SELECT DISTINCT Club
FROM worldcup_squads
WHERE ID IN (
    SELECT ID
    FROM worldcup_matches
    WHERE "Host Team" = TRUE
);
```
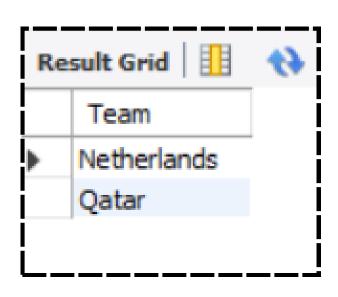
Club

FIND THE TEAMS THAT PARTICIPATED IN MATCHES WHERE THE MATCH DATE WAS AFTER THE 1ST OF DECEMBER 2022

```sql
SELECT DISTINCT Team
FROM worldcup_squads
WHERE ID IN (
    SELECT ID
    FROM worldcup_matches
    WHERE Date > '2022-12-01'
);
```

Result Grid

Team
Netherlands
Qatar

SUBQUERIES

WHICH COUNTRY HAS FINISHED AS THE RUNNER-UP THE MOST TIMES IN WORLD CUP HISTORY

```sql
SELECT host_country
FROM worldcups
WHERE Host_Country = (
    SELECT Host_Country
    FROM worldcups
    GROUP BY Host_Country
    ORDER BY SUM(runners_up) DESC
    LIMIT 1
);
```

Result Grid	Filter Rows:
host_country
Uruguay

THANK YOU