Introduction to Database Systems

Al Mondial

ER Diagram Document

Team Members

NAME	BN	SECTION
Mohamed Yehia Alahmed Alomar	14	2
Mostafa Magdy Mohamed Abdelrahman	23	2
Mostafa Mohamed Elsayed Ahmed Tawfiq	24	2
Mostafa Hani Mostafa Mohamed Ali	25	2

Contact Info

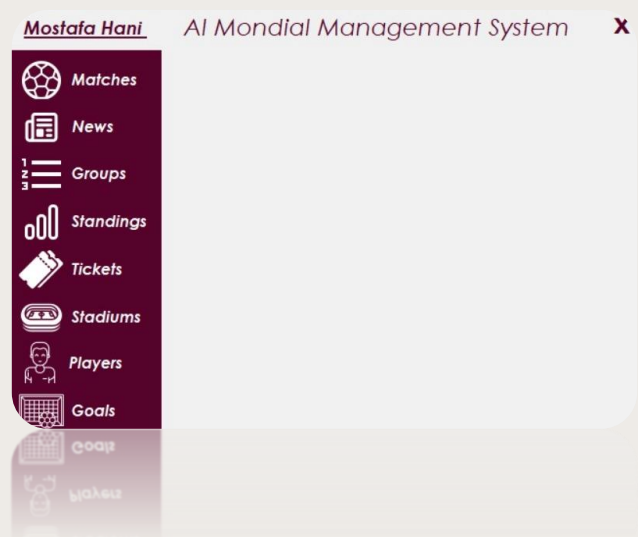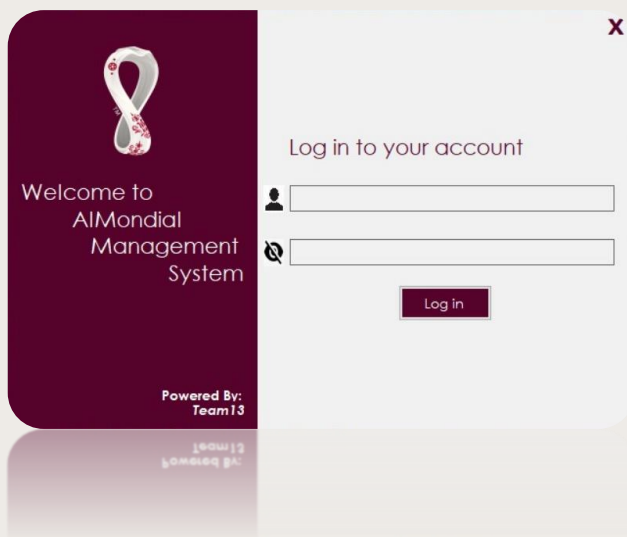| NAME	EMAIL
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Description

      Al Mondial App gives you the ultimate fan experience during FIFA World Cup ™.
The app is designed to serve as a guide for match times, live updates, news, and other informative material regarding the world cup.

      The Application will be run on two platforms; Mobile and Desktop.

Mobile application: For all users to consume the content of the application.

Desktop Application: For admins to make the live updates that will be shown on all the users' phones.

System Users

1. User/Guest

Activity	Functionalities
Login Screen	1. Signing up/ Logging in 2. Logging out (from home screen to login screen)
Home Screen	3. Viewing Today's Matches; teams/scores/time/etc... 4. Viewing Today's News about matches/players/teams
Popup Screen	5. The user gets to choose his favorite team (It will be shown after logging in for the first time or when the user decides to change his favorite team)
Matches Screen	6. Viewing Past/This Week/Future Matches: Team Names - Flags – Score – Stage – Date and time
Match Details Screen	7. Viewing Selected Match Details; - Team Names, Flags, Score, Stage, Time - Referee, Stadium, Coaches, Sponsors 8. Voting for the winner of the match; Displaying the percentage result of the votes. 9. Booking a ticket for the selected match
Ticket Details Screen	10. Adding a New Ticket; - Choosing the number of tickets needed - Viewing the Cost of the Tickets And money in the Wallet - Confirming the tickets request
Wallet Details Screen	11. Viewing Wallet Money: 12. Adding Money To Wallet
Team Details Screen	13. Clicking on A Team on any screen will open a new screen with all details of the team: Coaches – Sponsors - Players
Player Detail Screen	14. Clicking on A Player on any screen will show all details of the Player: Name – Age – Nationality – Goals – Red/Yellow Cards – etc...
Coach Detail Screen	15. Clicking on A Coach on any screen will show all details of the Coach: Name – Nationality – etc...
Stadium Detail Screen	16. Clicking on A Stadium on any screen will show All details of the Stadium: Capacity – Location – Creation Date – Pictures
Favorite Team Screen	17. Viewing Favourite Team's Matches 18. Viewing Favourite Team's News
Team Matches Screen	19. Viewing All Matches played - Future matches for the selected team
Statistics Screen	Players Statistics: 20. Table for Most Goals 21. Table for Most Assists 22. Table for Most Cleen sheets 23. Table for Most Goals Conceded 24. Table for Most Yellow/Red Cards Teams Statistics In each group: 25. Table for Most Team Wins/Losses 26. Table for Most Team Goals

Settings Screen	27. Changing Preferences
	    - Theme
	    - Favourite Team
	28. Changing User Settings
	    - Username
	    - Password
	29. Tickets booked button which navigates to another screen to view all booked tickets' details

Notifications Screen	30. Viewing All Received Notifications

2. Admin

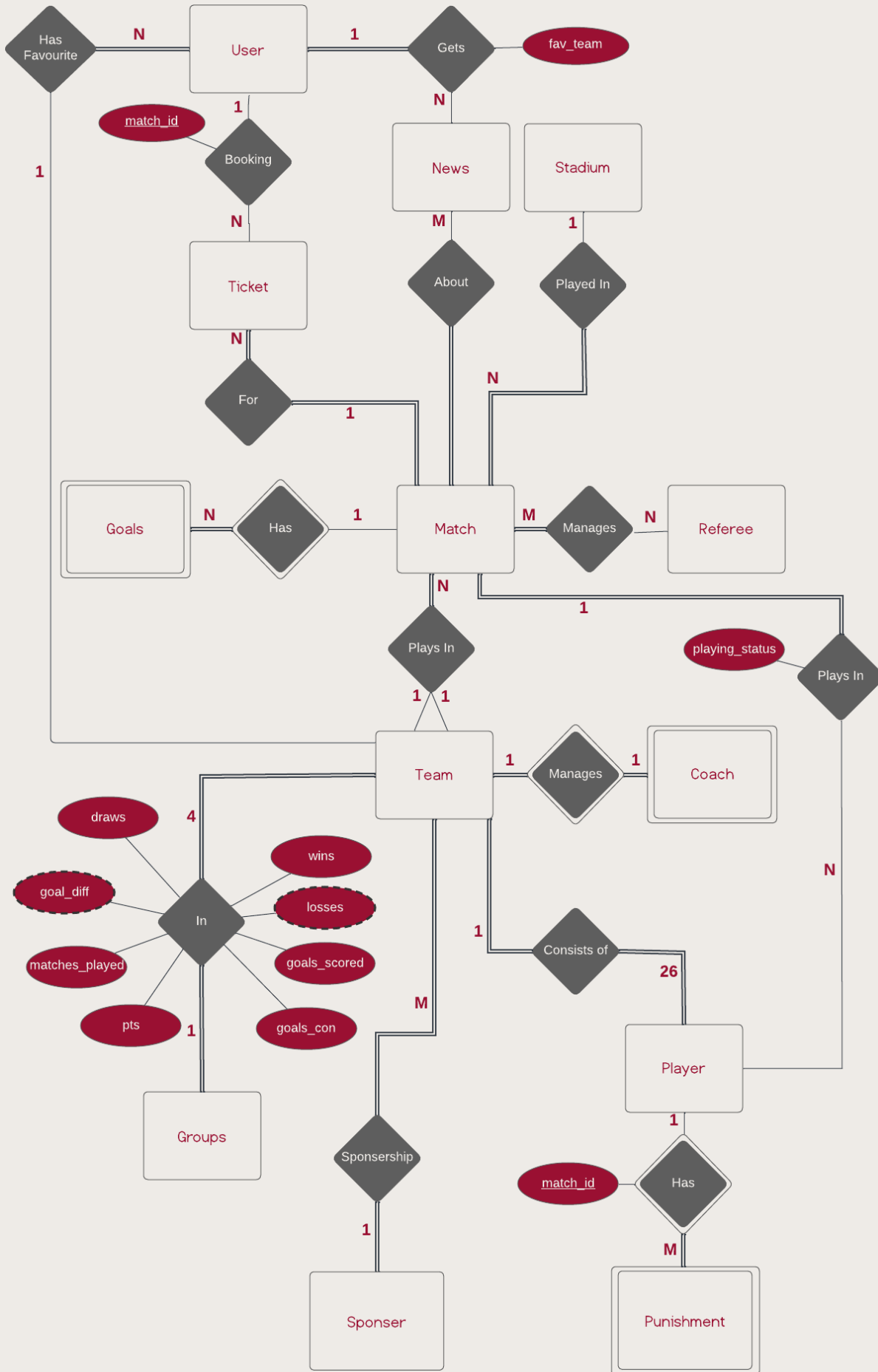| Functionalities |
|---|
| Adding Essential Unchanged data for every tournament:
1.   Players' details
2.   Teams' details
3.   Coaches' details
4.   Referees' details
5.   Stadiums' details |
| 6. Adding/Updating A Match with all its details
(which automatically updates all affected entities) |
| 7. Sending Notifications to All Users of the mobile application |
| 8. Adding News |
| 9. Accepting and Rejecting A Ticket From Users |
| 10. Viewing Statistics: All Users' Favourite Teams (Percentage of Each Team And Number of Users Favorited this Team) |

Entities

Entities	Description
Users	Users that use the application, including admins and normal users
Teams	The teams that participate in the world cup
Players	The Players that participate in the world cup
Groups	All information about the 8 Groups of the tournament
News	News about matches, teams, and players in the world cup
Referees	Referees that will participate in the tournament
Stadiums	Stadiums that will be played on
Matches	Matches that will be played in the world cup
Sponsors	Sponsors that will sponsor the world cup
Tickets	Tickets for the matches
Coaches	Coaches that will participate in the world cup
Punishment	Red/Yellow cards that will be received by a player
Goals	All goals scored in the tournament

Relationships

Relationship			Description
User	Has Favourite	Team	Each User chooses his favorite team (only one team).
User	Booking	Ticket	Users can book a ticket (or multiple) for a single match.
Ticket	For	Match	Every Match has a limited number of tickets (stadium capacity).
User	Gets	News	The user gets news about the whole tournament/news about his favorite team.
News	About	Match	News about match results/players starting lineup/etc…
Match	Played In	Stadium	A stadium will have many matches throughout the tournament.
Referee	Manages	Match	The referees' information will manage the match.
Match	Has	Goals	All goals scored within a single match (if exists), with scorers' names.
Team	Plays In	Match	The information of the 2 teams playing in a match.
Player	Plays In	Match	All information of the players that will be on the teams' squad.
Coach	Manages	Team	Every team has a coach that manages the team.
Team	In	Groups	Each Group contains 4 teams with its standings.
Team	Consists of	Player	All information of the full squad of the team.
Player	Has	Punishment	All punishments (red/yellow) are given to a player in all matches.
Team	Has	Sponsors	Sponsors support teams (in form of funding).

ER Diagram; Relationships

Has Favourite — N — **User** — 1 — **Gets** — **fav_team**

User — 1 — **Booking**

match_id — **Booking**

Gets — N — **News**

Stadium

Booking — N — **Ticket**

News — M — **About**

Stadium — 1 — **Played In**

Ticket — N — **For** — 1

About — N

Played In — N

Goals — N — **Has** — 1 — **Match** — M — **Manages** — N — **Referee**

Match — N — **Plays In**

Referee — 1

playing_status — **Plays In**

Plays In — 1 — 1 — **Team** — 1 — **Manages** — 1 — **Coach**

draws

wins

goal_diff

losses

matches_played — **In** — **goals_scored**

pts — 1

goals_con

Team — 4 — **In**

Team — 1 — **Consists of** — 26 — **Player**

Plays In — N — **Player**

Groups

Team — M — **Sponsership** — 1 — **Sponser**

Player — 1 — **Has** — M — **Punishment**

match_id — **Has**

ER Diagram