

African Nations League – Case

Background

As the world of football is going through changes with the introduction of UEFA Nations League and very recently the expanded Club World Cup. There are ongoing discussions to revamp the way African Countries play football when not playing competitive matches.

There are various angles to this debate ranging from the financial element, increase in number of games which could result in more injuries, the true level of competitiveness of such a competition among others.

You were tasked to create a platform to simulate how the tournament will look like.

Your Tasks and System Rules

For the first edition of the system, the organisers want the participation in the tournament to be on a voluntary basis. Any country that would like to join should sign up to become part of the tournament. A country is represented by their federation. The federation will have a representative who will act on their behalf. On signing up for the tournament, the representative should select which country in Africa they represent. They should also provide the name of the manager and list a squad of 23 players for the tournament, highlighting who the captain is. Every player has a natural position playing in either one of the 4 positions - GK (goalkeeping), DF (defending), MD (midfield) and AT (attacking).

Every player has a rating for each of the positions. The system should randomly assign each player a rating using the following logic:

- If a player is natural at that position, their rating is between 50-100 inclusively.
- If the player is not a natural at that position, their rating is between 0-50 inclusively.

So, for example, for a player who is natural as a Goalkeeper, the possible ratings are:

- GK: 50-100
- DF: 0-50

- MD: 0-50
- AT: 0-50

The rating of a country is calculated by the average of the ratings of the players in the squad.

Hint: For this project, you may create a randomizer to autofill names of the players to ease up the process. This process then auto allocates ratings for players and the country.

For this project, you are expected to have at least 8 teams in the tournament as the tournament begins at the Quarter Finals.

Hint: For the demo, have 7 teams in your system and then add the 8th team to demonstrate the ‘new user/team’ process in your system.

Your platform should show the **Road to Final** by assigning each team that has registered in the tournament bracket. See an example below:



In addition to the Federation representative, the platform should have another role, namely an administrator. This role serves as the simulator for the tournament. An administrator can only begin a tournament when there are 8 teams registered. An administrator may ‘play’ or ‘simulate’ a match.

When playing a match, use an AI service of your choice to generate match commentary using the two (2) squads. The match is shows key moments until a winner emerges either within the 90 minutes, extra time or penalties. You are only expected to generate text commentary.

Every match has a scoreline and goal scorers (and the minute they scored at). On completion of a match the system must notify the federations about the results by email.

When simulating a match, the system does not need to show the play by play actions. It should simply show the final scoreline and the goal scorers (and the minute they scored at).

An administrator should have the ability to restart the tournament to begin from quarter finals at any given time during the tournament.

Finally, the platform should have certain pages accessible to any visitor. Any user (logged in or not) should be able to view the tournament bracket, view match summary for any given match. If the match was ‘played’ then show the play by play, otherwise simply show the results indicating the match was ‘simulated’. The ranking of goal scorers should also be viewable to every user.

You can assume that the organisers gave you the creative freedom to design every page and also how you want to show the information to every user (Representative, Administrator, Visitor).

Bonus Points

For bonus points, you have been given the option to add one(1) feature which will help to enhance this platform further. The following are some ideas on extra features you may explore (but not limited to):

1. Audio commentary.
2. Audio effects (when a goal is scored – celebration noise etc.).
3. Gifs or short videos for in-game commentary.
4. Use real-life team information when auto-filling (on team creation).
5. Expand on a match by including more information about the match that may be useable in the tournament.
6. Analytics for team performance for representatives to view.
7. Past performances of teams (after a reset is done).
8. Past finalists and winners.
9. Auto simulate tournament.
10. Remove a team to let another team join.

Technical Requirements

The following points provide the technical requirements for the project:

1. Build a web application or mobile application using a tech stack of your choice which is appropriate for this project.
2. Use a NoSQL database (eg. Firebase, MongoDB etc)
3. Your application should be deployed to a server of your choice.

Submission

On submission, please provide the following:

1. A zipped file containing your source code. Please adhere to the naming conventions when naming the files/folder: **INF4001N_GVNDAN011_ANLeague_2026**
2. Username & password to your database
3. A url/link to your deployed site.
4. Administrator role’s username and password for your application.
5. Readme to explain how to run your application.