

ENGLISH PREMIER LEAGUE- AN INTERACTIVE DASHBOARD FOR SOCCER FANS

OBJECTIVE

The objective of this project is to create an interactive and fun interface for users to test how well they extract insights from a tableau report. Our dashboards cover Soccer data in an immersive format for users to engage and leverage their knowledge in the sport.

We have tried to achieve the following through this project –

1. Giving every user a chance to understand how to play around with a visual report and extract actionable information, similar to a professional setup.
2. Giving us, the developers, a chance to understand more about the usability of a dashboard, and how to make it more intuitive.

The users are displayed with the first dashboard which showcases information related to each Soccer team's net and transfer earnings. Users are then instructed to answer questions relating to the insights provided by the dashboard, and upon answering correctly, they are prompted to the second dashboard. This dashboard displays Player-level insights, which the users can manipulate according to their choices, and form teams that they can use for the purposes such as that of a fantasy soccer league.

CHALLENGES

Developing our vision into a practical framework required several trial and errors, as well as using learning from beyond our classroom knowledge. Naturally, we ran into several challenges as listed below, and overcame them effectively.

- Effectively using vertical and horizontal containers to make everything fit perfectly was challenging. We overcame this by picturing the end visual of our design and breaking down the page into segments. So, we added 3 vertical containers- for example, in the Build Your Team dashboard, and added sheets by dividing in those. I
- The top 10 rated bar chart was not going well with the background color of Build Your Team page and the bars were too wide. We fixed this by matching the sheet background fill as the same color as the dashboard background and making the bars much narrower and more readable.
- We wanted to add an image object in the middle and wanted to visualize team positions over it. This was the most challenging part in the project. We overcame this by first - exploring Floating feature and setting the football ground image behind. And then added the 433 plot over it (floating again). We also made the background fill transparent. To represent players in their right positions, we used this as a general plot and hard-coded positions as X and Y coordinates in the sheet so they represent correct positions on the football pitch image.

- Yet another challenge was that there was no “Position” field in terms of “Forwards”, “Midfielders” etc. We had to split the “Positions” field on comma and use the first split as the prime position, and used it in IF ELSE calculated function to then create the “Position” Field, which is what is actually used in all the parameters and descriptions.
- Setting a default value when no selection was being made was a challenge. We had to fix this by creating a parameter and set the default value there. For example - “—Pick Player—” for Pick Team Dashboard, and “F.C” for Transfer Financials dashboard.
- People who watch soccer attribute a team to its color. So, we actually spent time and manually coded each team’s legend with its relevant color for the 433 sheet, so that it is immediately recognizable which club the player belongs to (even though we do list the club as text).
- In the Pick Team Dashboard, we wanted to make sure that the same player cannot appear in 2 positions. One player can only appear once. Hence, in our calculated fields for each position, we have included relevant logic to exclude players that have been selected in another position.

DATASET

- **Transfer Financials Dashboard** - EPL complete data 2020:21 – Sheet EPL Summer 2020 Transfers
- **Pick Team Dashboard** – EPL Players – Sheet1

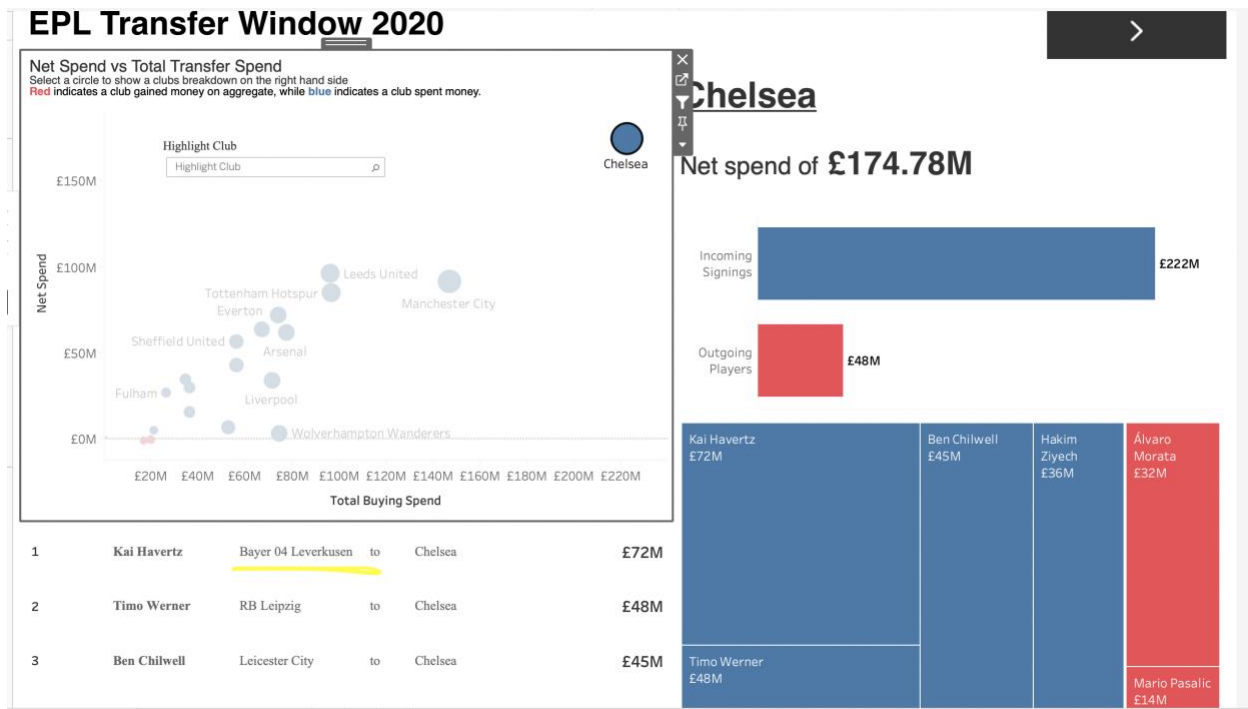
RESULTS –

- **Dashboard 1:**

The Net Spend vs Total Transfer Spend scatterplot is showing Net Spend of a club in the transfer window. All the clubs in blue have positive Net Spend, meaning that on net, they have spent money on incoming players. Red Clubs are the ones who have negative Net Spend, they have gained money by selling own players on net. Net Spend itself is a calculated field in Euros. There is an option to highlight a club in the floating object. Clicking on a club will drill-down and give more details on the right side – like a KPI card, top incoming and outgoing signings, and which clubs have the signings come from.

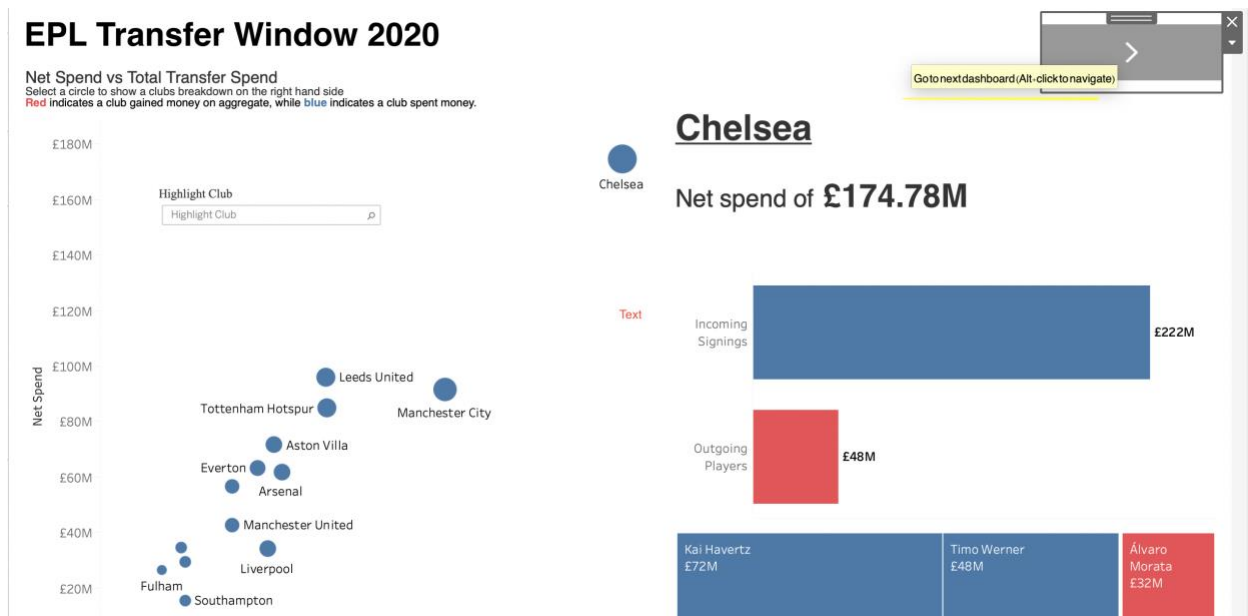
For this dashboard, we can ask users questions like –

For the club with highest Net Spend, which club has the most expensive signing come from?



Here, the user will identify first that Chelsea is the club with highest net spend, and on the right identify Kai Havertz as the most expensive signing, then at the bottom right table, observe that the player has been signed from Bayer 04 Leverkusen.

After this activity, the user can click on the top right button to navigate to the next dashboard.



- **Dashboard 2**

After clicking on the next button, user is lead to the team formation dashboard. The game for the user is to create the best team. By default, the 433 page on the football pitch shows no players. (the parameters on the left side all have “pick player”. As the user keeps on selecting relevant players, they keep appearing on the football pitch on their relevant positions.

When no players selected

Pick Your EPL Team of the Season

Select your starting X1 using the dropdowns below
You can refer to the top 10 rated charts on the right to create your team

Goalkeeper
--Pick Player--

Defender
--Pick Player--

Defender
--Pick Player--

Defender
--Pick Player--

Defender
--Pick Player--

Midfielder
--Pick Player--

Midfielder
--Pick Player--

Midfielder
--Pick Player--

Top 10 Rated Players by Team
Select Team to Show: Arsenal

Rank	Player	Rating
1	Pierre-Emeric...	88
2	Alexandre Lac...	85
3	Mesut Ůzil	85
4	Bernd Leno	83
5	Sokratis Papa...	83
6	Aaron Ramsey	82
7	Henrikh Mkh...	82
8	Laurent Kosci...	82
9	Lucas Torreir...	82
10	Petr ůæech	82

Top 10 Rated Players by Position
Select Position to Show: Midfielders

Rank	Player	Rating
1	Mohamed Salah Ghaly	89
2	N'Golo KantvŮ	89
3	Paul Pogba	88
4	Fernando Luiz Rosa	87
5	Raheem Sterling	87

When team is created

Pick Your EPL Team of the Season

Select your starting X1 using the dropdowns below.

Goalkeeper
Hugo Lloris

Defender
VIRGIL VAN DIJK

Defender
VINCENT KOMpany

Defender
Toby Alderweireld

Defender
Cesc Azpilicueta Tanco

Midfielder
N'Golo Kanté

Midfielder
Paul Pogba

Midfielder
Aaron Ramsey

Forward
Sadio Mané

Top 10 Rated Players by Position
Select Position to Show
Midfielders

Rank	Player	Rating
1	Mohamed Salah Ghaly	89
2	N'Golo Kanté	89
3	Paul Pogba	88
4	Fernando Luiz Rosa	87
5	Raheem Sterling	87
6	İlkay Gündoğan	85
7	Riyad Mahrez	85
8	Fábio Henrique Tavres	84
9	Felipe Anderson Pereira	84
10	Goalkeeper	84

Top 10 Rated Players by Team
Select Team to Show
Tottenham Hotspur

Rank	Player	Rating
1	Harry Kane	
2	Christian Dan...	
3	Hugo Lloris	

A user can refer to the top 10 visuals on the right.

Bottom visual is top 10 rated players by position (across all the clubs). So one can just refer to that and create the best team possible.

However, a problem question could be like – Pick the strongest defense having at least one defenders from team “Arsenal”. In that case, a user can view the tooltips from the top right chart and see of top 10 Arsenal players, who is the defender. (see image – the task will then be to include Sokratis as one of the defenders).

Pick Your EPL Team of the Season

Select your starting X1 using the dropdowns below
You can refer to the top 10 rated charts on the right to create your team

Goalkeeper
--Pick Player--

Defender
--Pick Player--

Defender
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Defender
--Pick Player--

Defender
--Pick Player--

Midfielder
--Pick Player--

Midfielder
--Pick Player--

Top 10 Rated Players by Team
Select Team to Show: Arsenal

Rank	Player	Rating
1	Pierre-Emeric	88
2	Alexandre Lacazette	85
3	Mesut Özil	85
4	Bernd Leno	83
5	Sokratis Papa.	83
6	Aaron Ramsdale	82
7	Henrikh Mkhitaryan	82
8	Laurent Kossov	82
9	Lucas Torreira	82
10	Petr Jiráček	82

Club Team: Arsenal
Full Name: Sokratis Papastathopoulos
Position: Defenders
Sum of Overall Rating: 83
Rank along Table (Down): 5

Top 10 Rated Players by Position
Select Position to Show: Midfielders

Rank	Player	Rating
1	Mohamed Salah Ghaly	89
2	N'Golo Kanté	89
3	Paul Pogba	88

Future applications –

We'll work over this in the summer as well to add at least two more elements –

- Connect more financial data points and make the team formation dashboard even more fun by providing each user a wage bill cap. That way there is a limitation which position each user wants to strengthen. It's inspired by the fantasy league concept.
- We'll make the navigation between dashboards dynamic – if the answer given by the user is correct, or if the team created is within the wage bill benchmark.