

"Get Started with Power BI"

A Practical Data Analytics Guide



"Empowering decision-makers with the right tools is essential for success. Power BI equips them with the insights needed to make strategic choices."



"Get Started with Power BI"

A Practical Data Analytics Guide

POINTS OF DISCUSSION

- Introduction and Setup
- Creating Visualizations
- Building Reports and Dashboards
- Publishing and Sharing

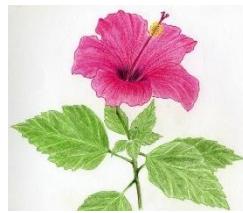
Welcome to Your Power BI Journey!

"Data is the new oil of the digital economy, fueling innovation and driving decisions that shape our world. As William Edwards Deming famously said, 'In God we trust; all others must bring data.' Welcome to 'Get Started with Power BI: A Practical Data Analytics Guide,' where we embark on a journey to harness the power of data.

In this guide, you'll uncover the essentials of Power BI, a leading tool in the realm of business intelligence and data analytics. From connecting to diverse data sources to crafting compelling visualizations, you'll learn how to transform raw data into actionable insights.

Join us as we delve into the art of data modeling, building insightful reports and dashboards, and seamlessly sharing your discoveries with stakeholders. Whether you're new to data analytics or looking to refine your skills, this guide promises hands-on learning and practical knowledge to elevate your understanding of Power BI.

Let's empower ourselves with data-driven decision-making and unlock the potential of Power BI together!"



EXPERIMENT NUMBER – 1

INTRODUCTION AND SETUP

TASKS

Overview of Power BI

Introduction to Power BI and its components (Power BI Desktop, Power BI Service)

- Installation and Setup**

- Installing Power BI Desktop
- Overview of the interface
- Activity: Install Power BI Desktop and explore the interface.

OVERVIEW OF POWER BI

Introduction to Power BI and its Components

Power BI is a business analytics tool by Microsoft that provides interactive visualizations and business intelligence capabilities with an interface simple enough for end users to create their own reports and dashboards.

The main components of Power BI are:

1. **Power BI Desktop:** A Windows application for creating reports and data visualizations.
2. **Power BI Service:** An online SaaS (Software as a Service) where you can publish and share reports created in Power BI Desktop.

INSTALLATION AND SETUP

Installing Power BI Desktop

Follow these detailed steps to install Power BI Desktop:

1. Download Power BI Desktop:

- Go to the [Power BI website](#).
- Click on the "Download free" button.
- This will redirect you to the Microsoft Store or a direct download link.

2. Install Power BI Desktop:

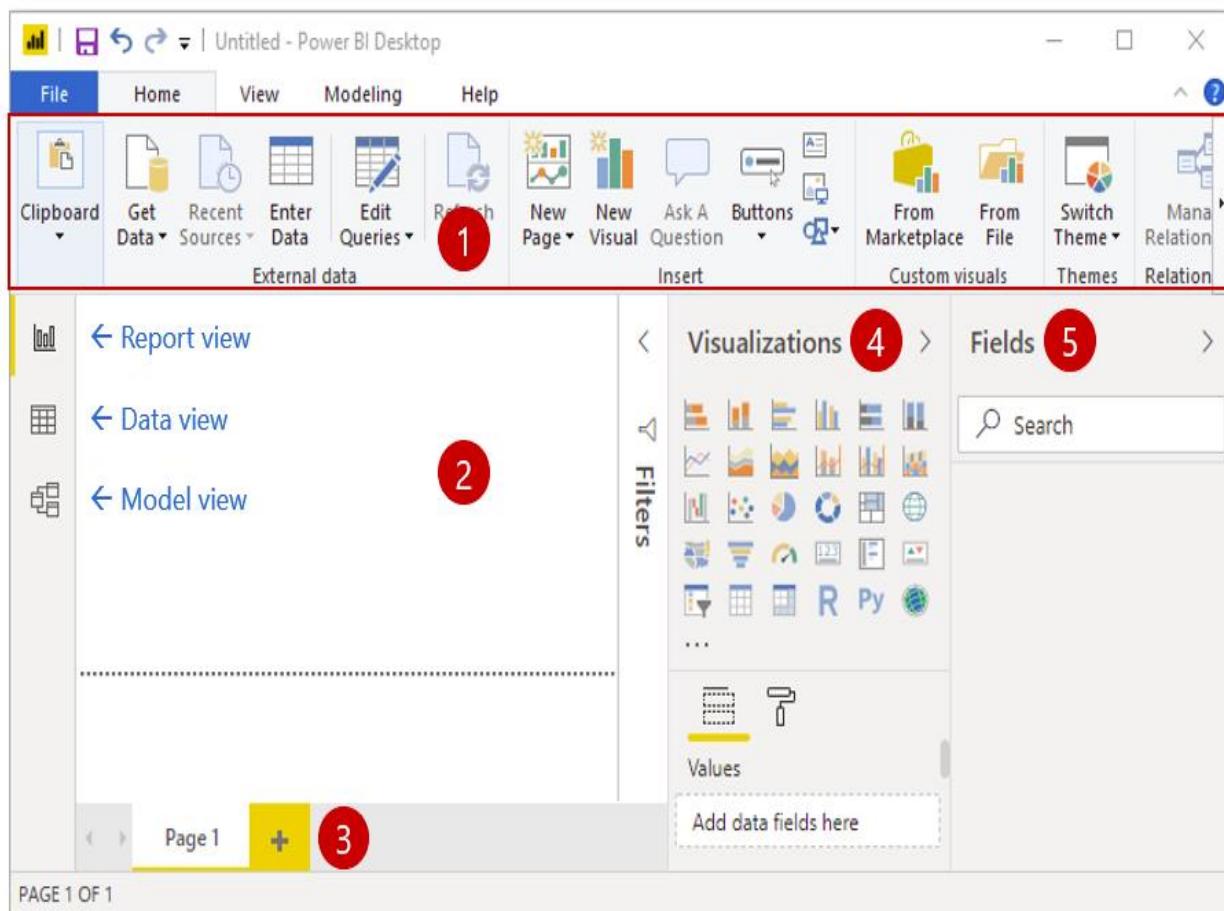
- If redirected to the Microsoft Store, click "Get" to download and install the application.
- If you have a direct download link, download the installer file (.exe), and once the download is complete, open the file to start the installation.
- Follow the on-screen instructions to complete the installation. You may need administrative rights to install software on your computer.

3. Launch Power BI Desktop:

- Once installed, launch Power BI Desktop from your Start menu or desktop shortcut.

OVERVIEW OF THE INTERFACE

Upon opening Power BI Desktop, you will see several key areas:



1. **Ribbon:** At the top, similar to other Microsoft Office applications, containing various tabs like *Home*, *View*, *Modeling*, etc.
2. **Report View:** The main area where you create and arrange visualizations.
3. **Data View:** Allows you to see your data in tabular form.

4. **Model View:** Used to manage relationships between tables in your data model.
5. **Fields Pane:** Displays the tables and fields in your data model.
6. **Visualizations Pane:** Contains various types of charts and graphs you can add to your report.
7. **Filters Pane:** Allows you to apply filters to your visualizations and data.

Activity: Install Power BI Desktop and Explore the Interface

1. Installation:

- Follow the steps outlined above to download and install Power BI Desktop.

2. Exploration:

- **Open Power BI Desktop.**
 - Familiarize yourself with the Ribbon by clicking through each tab and noting the different options available.
 - In the Report View, try dragging a field from the Fields Pane onto the Report View area to create a simple visualization.
 - Switch to the Data View and explore how your data looks in tabular form.
 - Use the Model View to see if there are any relationships between tables in your data model.
 - Experiment with different visualizations from the Visualizations Pane.
 - Apply filters using the Filters Pane and see how it affects your visualizations.
- By the end of this session, you should have a basic understanding of Power BI's components, have Power BI Desktop installed, and be comfortable navigating its interface.

DOWNLOAD, INSTALL AND UPGRADE FEATURES IN POWERBI

TASKS:

- **Overview of Power BI**

- Introduction to Power BI and its components

(Power BI Desktop, Power BI Service)

- **Installation and Setup**

- Installing Power BI Desktop
 - Overview of the interface
 - Activity: Install Power BI Desktop and explore the interface

AIM

The aim of this experiment is to familiarize users with the process of downloading, installing, and upgrading Power BI Desktop, ensuring they have the necessary software installed and up-to-date to begin creating reports and visualizations effectively.

OBJECTIVES

- **Download and Install Power BI Desktop:**

- Learn how to download the latest version of Power BI Desktop from the *official Microsoft website*.
 - Understand the steps required to install Power BI Desktop on your computer, ensuring a successful installation process.

- **Upgrade Power BI Desktop:**

- Learn how to check for ***updates and upgrade to the latest version*** of Power BI Desktop, ensuring access to new features and improvements.
- **Verify Installation and Compatibility:**
 - Verify that Power BI Desktop has been successfully installed and is ready for use by launching the application and exploring its interface.
 - Ensure compatibility with other Power BI components or services, such as Power BI Service, to enable seamless collaboration and data sharing.
 - By completing these objectives, users will be equipped with the necessary knowledge and skills to download, install, and upgrade Power BI Desktop, enabling them to leverage its powerful features for data analysis and visualization.

PROCEDURE:

Step-1: Download Power BI Desktop

1. Visit the official Microsoft Power BI Desktop download page using the following link: Power BI Desktop Download. (<https://www.microsoft.com/en-us/power-platform/products/power-bi/desktop>)
2. Click the "**Download**" button to get the latest version of Power BI Desktop.
3. Follow the prompts to save the installer file to your computer.

Step-2: Install Power BI Desktop

1. Locate the downloaded installer file (usually in your Downloads folder).
2. Double-click the **installer file** to begin the installation process.
3. Follow the on-screen instructions to complete the installation.

Step-3: Check for Feature Upgrades

1. Open Power BI Desktop by clicking the **application** icon.
2. From the taskbar, click on the "**File**" option.
3. Select "**Options and Settings**" from the dropdown menu.
4. Click on "**Options**".

Step-4: Enable Preview Features

1. In the Options window, select "**Preview Features**".
2. Review the available features and check the ones you want to enable.
3. Click "**OK**" to apply the changes.

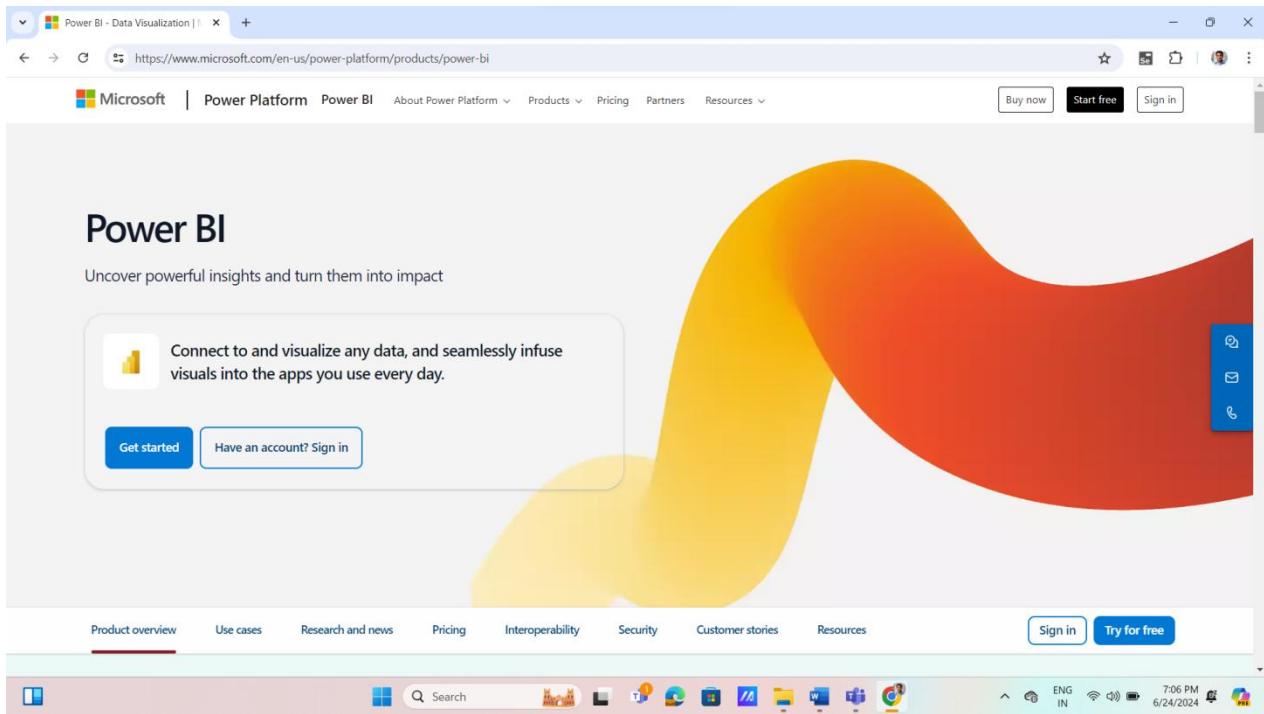
Step-5: Restart Power BI Application

1. Close Power BI Desktop.
2. Reopen Power BI Desktop to ensure all enabled features are visible and functional.

STEP BY STEP PROCESS

Step-1 : Download **Power-BI - Desktop** from Microsoft Store using the following link :

[https://powerbi.microsoft.com/en-us/desktop/.](https://powerbi.microsoft.com/en-us/desktop/)



The screenshot shows the Microsoft Power BI Desktop website at powerbi.microsoft.com/en-us/desktop/. The page features a dark header with the Microsoft logo and navigation links for Overview, Products, Pricing, Solutions, Partners, Resources, and Community. A search bar, sign-in link, and a "Buy now" button are also present. The main content area has a dark background with a central yellow banner containing the text "Go from data to insight to action with Power BI Desktop". Below the banner, it says "Create rich, interactive reports with visual analytics at your fingertips—for free." Two buttons are visible: "Download free >" and "See download or language options >". To the right of the main content are three yellow icons representing different features: a speech bubble, a pencil, and a person wearing headphones.

The screenshot shows the Microsoft Store page for Power BI Desktop. On the left, there's a sidebar with links to Home, Apps, Gaming, and Arcade. The main content area shows the app's icon (a yellow bar chart), its name "Power BI Desktop" by Microsoft Corporation, and a "Downloading" status. It has a rating of 4.6 stars and 4K average ratings. A "Business" category badge is present. The page includes sections for "Screenshots" showing various dashboard examples, a "Description" section explaining the tool's purpose, and a "Ratings and reviews" section with a 4.6 rating and a progress bar. At the bottom, there's a "Help" link and a "PARENTAL CONTROLS" section with a "3+" rating.

Getting Started | Microsoft Power BI

<https://www.microsoft.com/en-us/power-platform/products/power-bi/getting-started-with-power-bi>

Start for free Trial features Desktop app Resources Next steps

Create a free Microsoft Fabric account ▾

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Use Power BI on your desktop ^

Create reports faster with added data connections and features available on the Power BI Desktop app.

[Download now](#)

Sharpen your Power BI skills ▾

80°F Partly cloudy

Search

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Microsoft Store

Search apps, games, movies, and more

Screenshots

Power BI Desktop
Microsoft Corporation

[Open](#)

4.8 ★
Average 8K Ratings

Business

Description

Power BI Desktop puts visual analytics at your fingertips. With this powerful authoring tool, you can create interactive data visualizations and reports. Connect, mash up and model, and visualize your data. Place visuals exactly where you want them, analyze and explore your data, and share content with your team by publishing to the Power BI web service.

Power BI Desktop is part of the Power BI product suite. Use Power BI Desktop to create and distribute BI content. To monitor key data and share dashboards and reports, use the Power BI web service. To view and interact with your data on any Windows 10 device, get the Power BI Mobile app.

With Power BI Desktop, you can:
...
[Show more](#)

What's New

Library

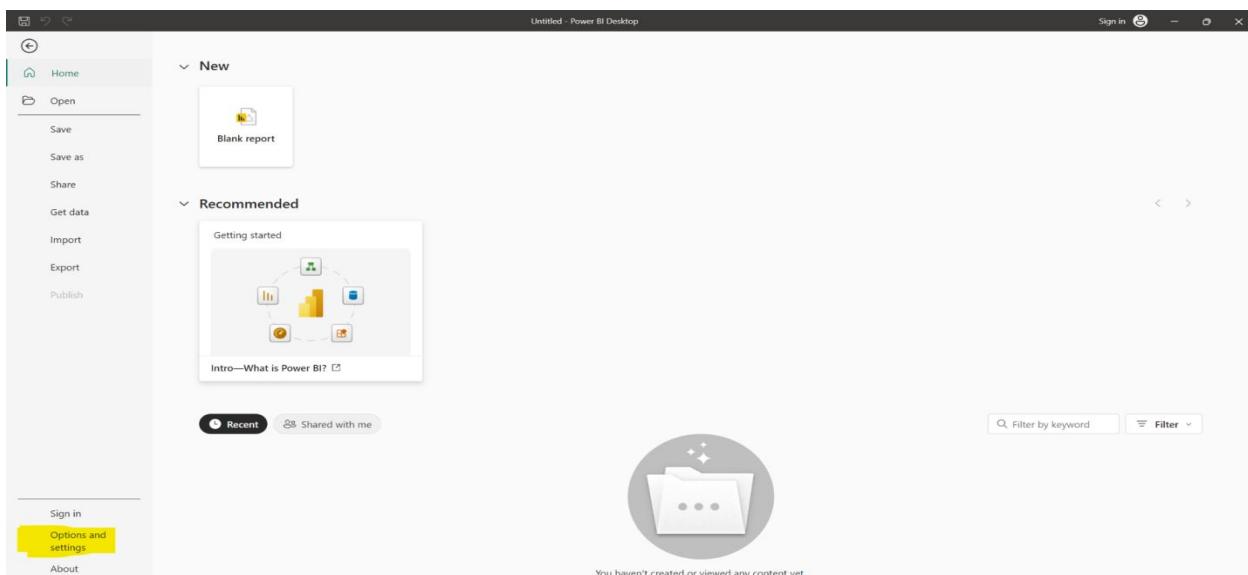
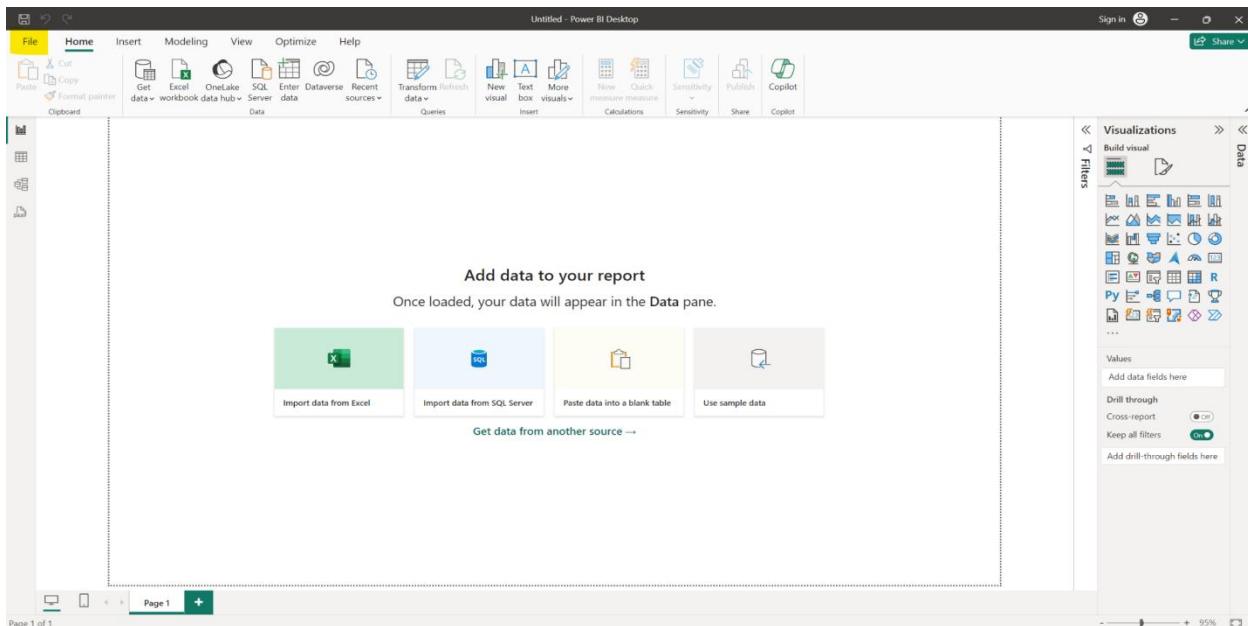
Help

News for you India's Modi call...

Search

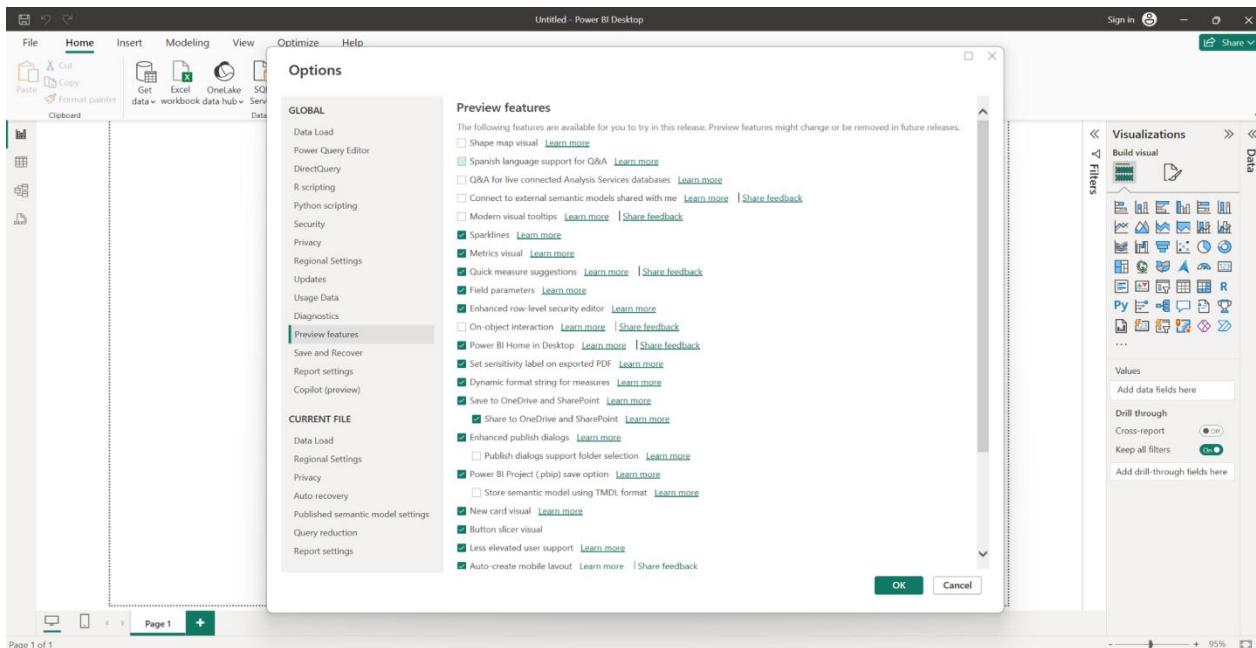
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Step-2: Check for feature upgrades by clicking on **File** option from the **Task Bar** > Select **Options and Settings** option from the drop-down menu followed by selecting the **Options** item.





Step-3 : From the options window select **Preview Features** option.



Step-4: Select the **additional features** you require and **click** on ok. These features should be checked regularly for constant upgrades from Microsoft.

Step-5: Restart the PowerBI Application for all the features to be visible on the application.

KEY POINTS

- Power BI is a business analytics tool by Microsoft.
- The main components are Power BI Desktop and Power BI Service.
- Follow the detailed steps to download, install, and explore Power BI Desktop.
- Regularly check for updates and enable new features to keep your software current.
- Familiarize yourself with the Power BI Desktop interface for efficient data analysis and visualization.

CHAPTER SUMMARY

In this experiment, we learned how to download, install, and upgrade Power BI Desktop. By following the outlined procedure, users can ensure they have the latest version of Power BI Desktop installed, with all the necessary features enabled for optimal performance. This knowledge is essential for effectively utilizing Power BI Desktop for data analysis and visualization tasks, allowing for seamless integration with other Power BI services and components.

EXPERIMENT NUMBER – 1

CASE STUDY REPORT ON Fantasy Football League Analysis Using Power BI

INTRODUCTION

Fantasy football is a competitive online game where participants manage virtual teams made up of real-life football players. The league's commissioner oversees the game and tracks various statistics such as team performance, player contributions, and match results. However, manually analyzing and tracking these statistics is time-consuming and inefficient. To address this challenge, Power BI is used to develop an interactive dashboard that automates data analysis and visualization, providing real-time insights into league performance.

AIM

The aim of this project is to develop a Power BI dashboard that provides interactive and dynamic insights into team performance, player statistics, and match outcomes for a fantasy football league. By leveraging Power BI, the dashboard will enhance decision-making, identify trends, and improve team management strategies.

PROCEDURE

To analyze the data and generate reports using Power BI:

Data Collection: Gather data from multiple sources, including player statistics, match outcomes, and team performance.

Data Preprocessing: Clean and transform raw data to ensure consistency and accuracy.

Data Integration: Combine datasets into a single data model within Power BI.

Dashboard Development: Design and create interactive visualizations.

Advanced Analytics: Apply clustering, regression, and predictive analytics to generate insights.

Testing & Validation: Verify the accuracy of the dashboard by comparing insights with actual match outcomes.

Deployment & Usage: Share the dashboard with stakeholders for real-time monitoring and decision-making.

FUNCTIONS USED

The following functions will be used in Power BI to manipulate the data and create visualizations:

Data Import Functions: Power Query for extracting and transforming data.

Visualization Tools: Power BI charts, graphs, and tables.

DAX (Data Analysis Expressions): Used for creating calculated columns and measures.

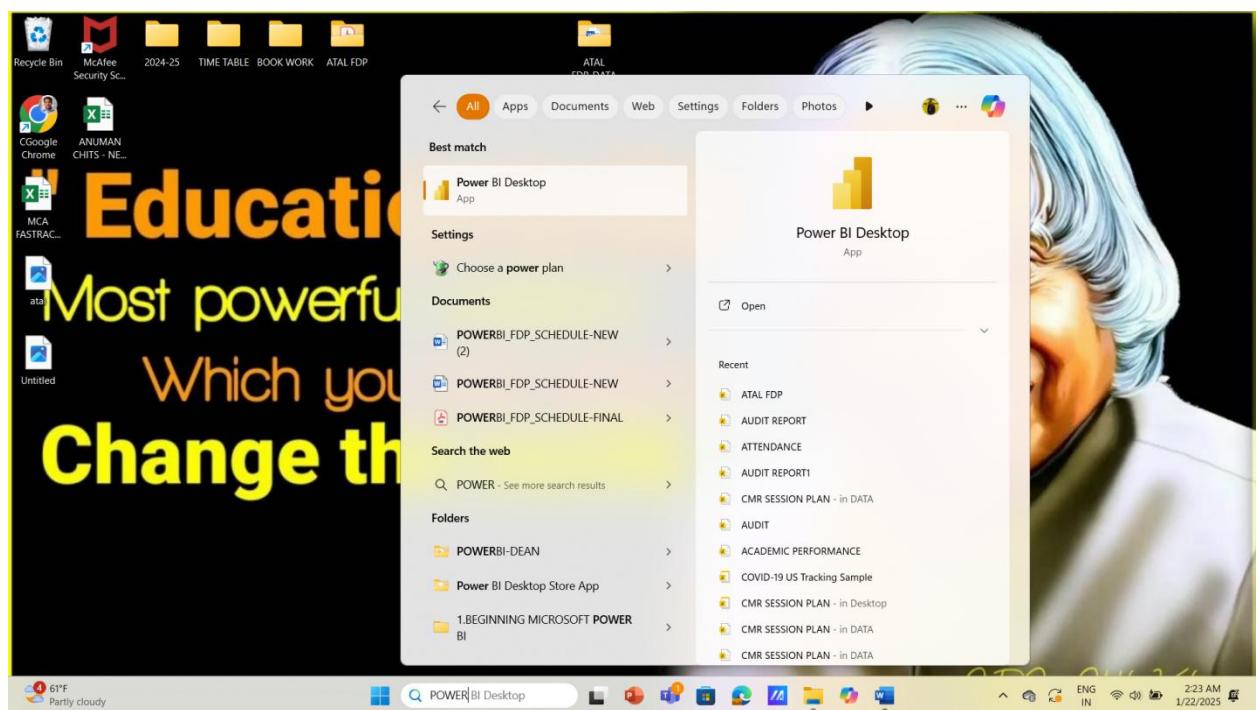
Filtering & Slicing Functions: Dynamic filtering to analyze specific teams and players.

Machine Learning Integration: Python and R scripts for predictive analytics.

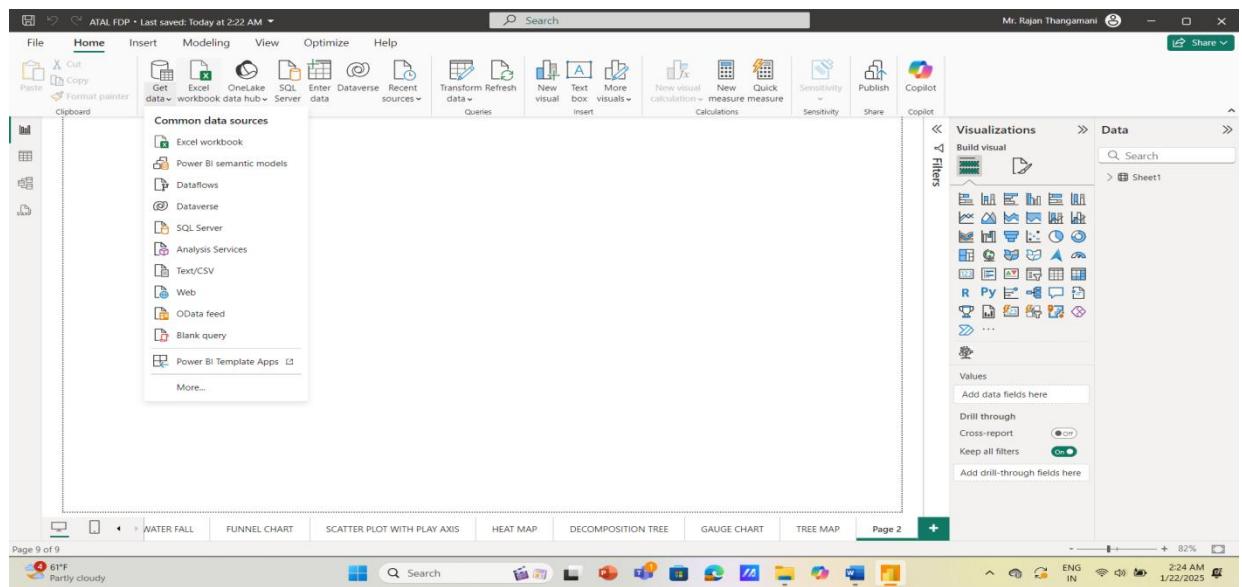
WORKING STEPS

Step 1: Load Data into Power BI

1. Open Power BI Desktop.



2. Click on **Home** > **Get Data** > **Excel** (or select another data source if applicable).



3. Choose the file containing the dataset with the necessary fields

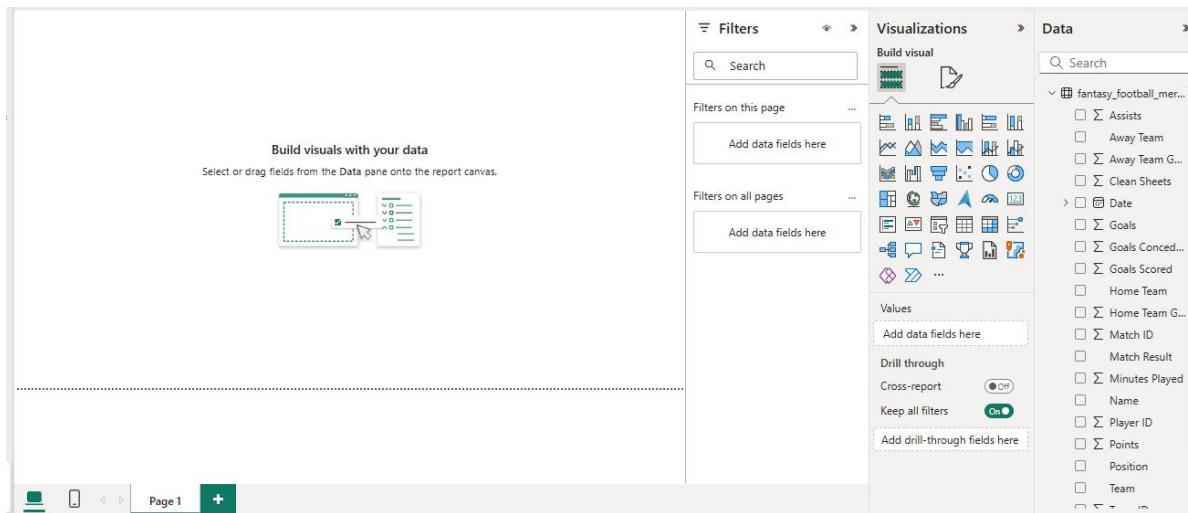
A screenshot of the "Data" pane in Power BI. The pane shows a hierarchical list of fields from a selected dataset. At the top, there is a search bar. Below it, the dataset name "fantasy_football..." is expanded, showing fields like "Assists", "Away Team", "Clean Sheets", etc. Other collapsed sections include "Date", "Goals", "Goals Conceded", "Goals Scored", "Home Team", "Match ID", "Match Result", "Minutes Played", "Name", "Player ID", "Points", "Position", and "Team". The interface includes scroll bars on the right side.

- Select the required sheet and click **Load** to bring the data into Power BI.

Step 2: Data Preparation and Cleaning

1. Transform Data:

- Click **Transform Data** to open the Power Query Editor.



- Remove any duplicate entries or empty rows.

PlayerID	Name	Team	Position	Goals	Assists	Yellow Card	Minutes Played	Team ID	Team Name	Points	Goals Scored	Goals Conceded	Clean Sheets	Match ID	Date	Home Team	Away Team	Home Win
1	Player A	Team 1	Forward	5	2	1	900	1	Team 1	10	10	6	2	101	10-01-2024	Team 1	Team 2	
2	Player B	Team 1	Midfielder	3	4	2	850	1	Team 1	10	10	6	2	101	10-01-2024	Team 1	Team 2	
3	Player C	Team 2	Defender	1	1	0	700	2	Team 2	8	8	9	1	102	15-01-2024	Team 2	Team 3	
4	Player D	Team 2	Goalkeeper	0	0	1	650	2	Team 2	8	8	9	1	102	15-01-2024	Team 2	Team 3	
5	Player E	Team 3	Forward	6	3	2	920	3	Team 3	12	14	7	3	103	20-01-2024	Team 3	Team 4	
6	Player F	Team 3	Midfielder	4	2	1	880	3	Team 3	12	14	7	3	103	20-01-2024	Team 3	Team 4	
7	Player G	Team 4	Defender	2	1	0	720	4	Team 4	6	6	10	1	104	25-01-2024	Team 4	Team 5	
8	Player H	Team 4	Goalkeeper	0	0	1	680	4	Team 4	6	6	10	1	104	25-01-2024	Team 4	Team 5	
9	Player I	Team 5	Forward	7	4	3	950	5	Team 5	9	11	12	2	105	30-01-2024	Team 5	Team 1	
10	Player J	Team 5	Midfielder	5	3	2	910	5	Team 5	9	11	12	2	105	30-01-2024	Team 5	Team 1	

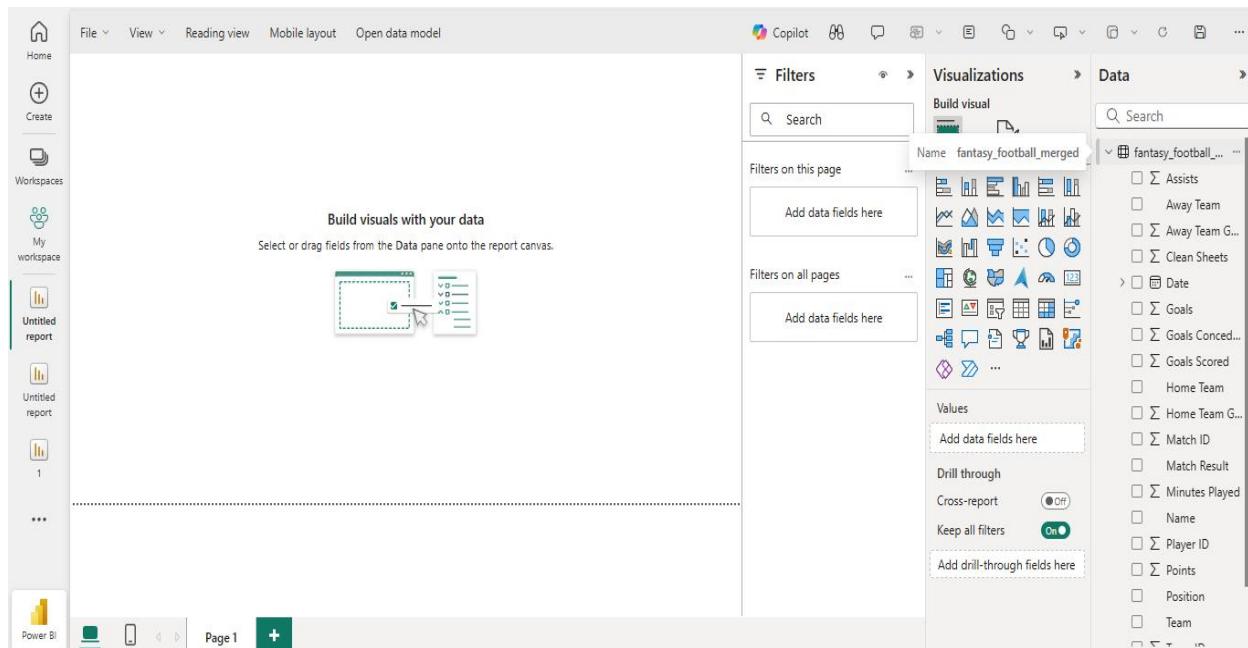
- Make sure the data types are correct

2. Check for Missing Data:

- Identify missing values using filters or conditional formatting in the Power Query Editor.
- Handle missing data by either filling values or removing rows as necessary.

Step 3: Create Visualizations in Power BI

Each of the following visualizations is created by dragging and dropping fields from the dataset into Power BI's **Visualizations pane**.



POWER BI VISUALIZATIONS AND TECHNIQUES

1). WATERFALL CHART

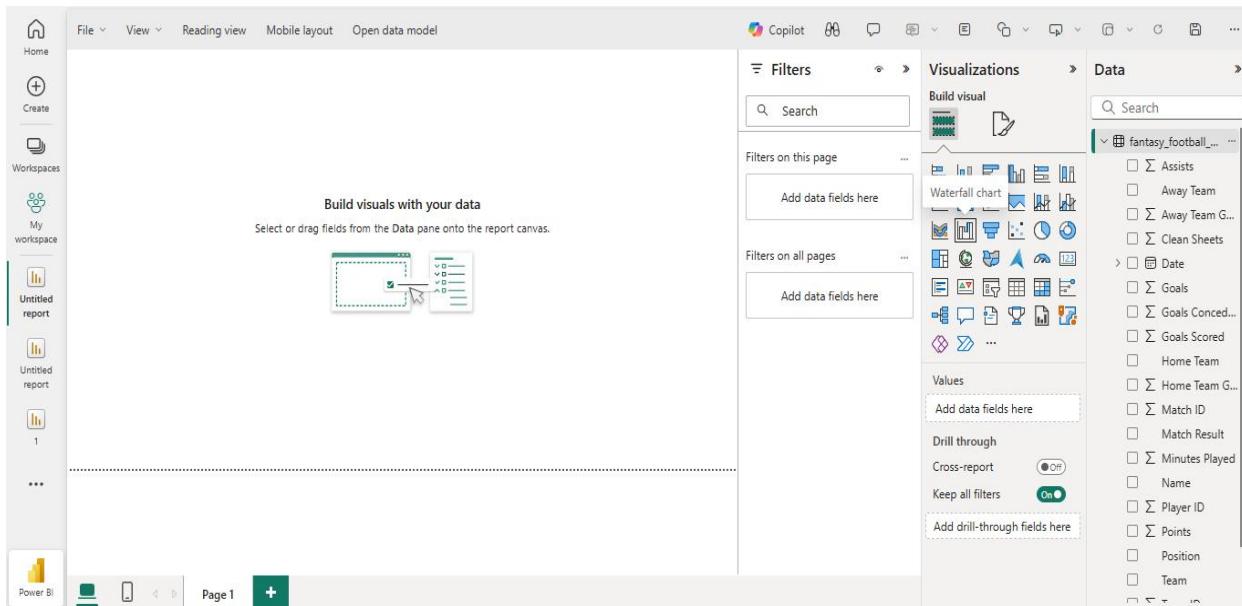
- **Definition:** A Waterfall chart is used to display the incremental changes in a value, showing how an initial value is affected by sequential positive or negative values.

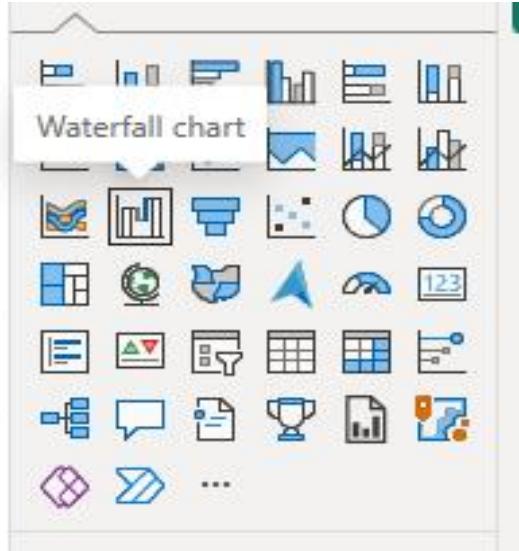
POWER BI PROCEDURE:

1. Select the **Waterfall Chart** from the **Visualizations pane**.
2. Drag and drop **Total Students** onto the **Y-axis**.

STEP : 1

Select the **Waterfall Chart** from the **Visualizations pane**.





STEP : 2 Drag and drop

Visualizations > Data >

Build visual

Waterfall chart

Assists

Breakdown

Yellow Cards

Y-axis

Sum of Goals

Toolips

Search

Date

Σ Goals

Σ Goals Conceded

Σ Goals Scored

Home Team

Σ Home Team Goals

Σ Match ID

Match Result

Σ Minutes Played

Name

Player ID

Σ Points

Position

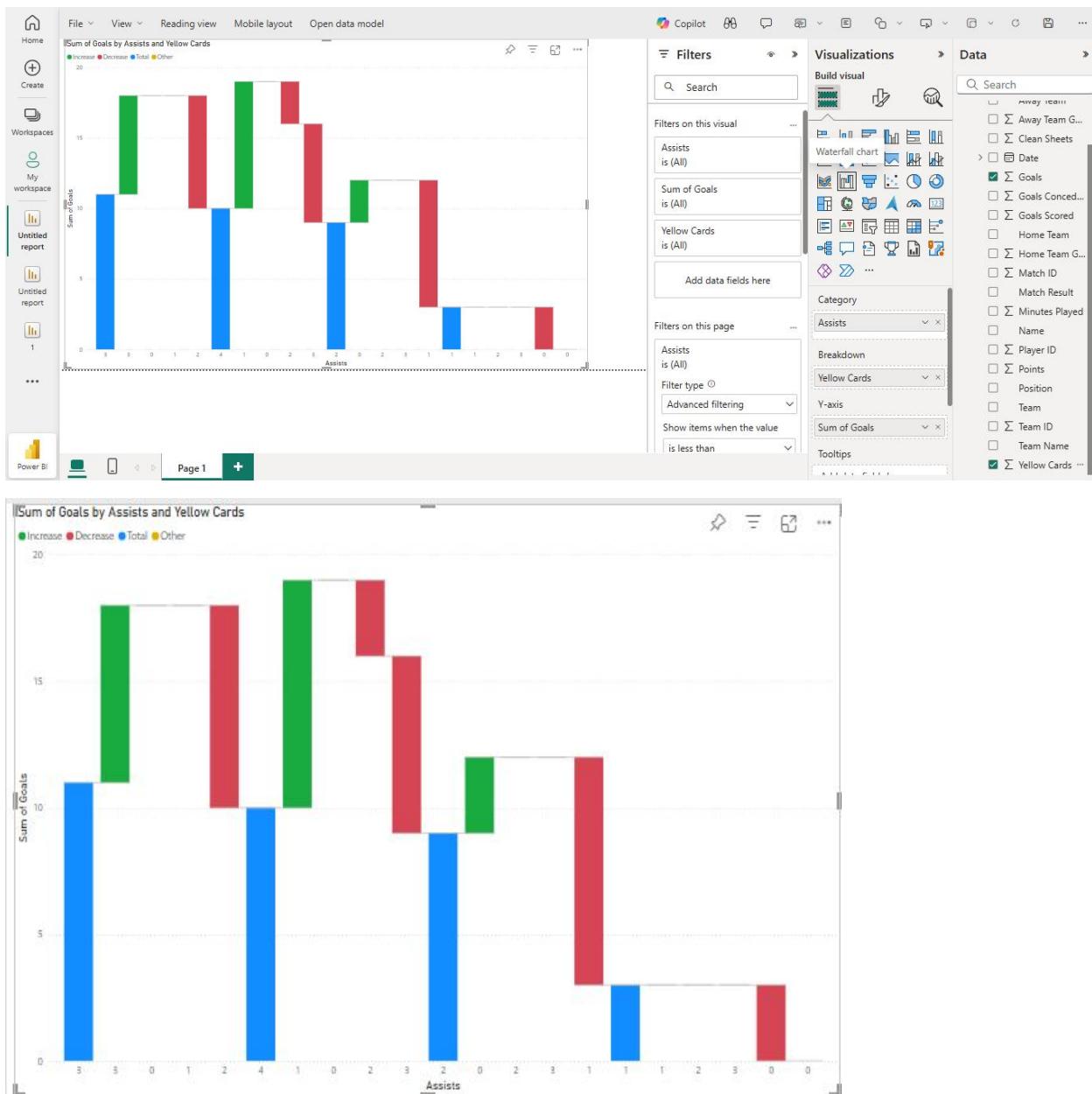
Team

Team ID

Team Name

Σ Yellow Cards

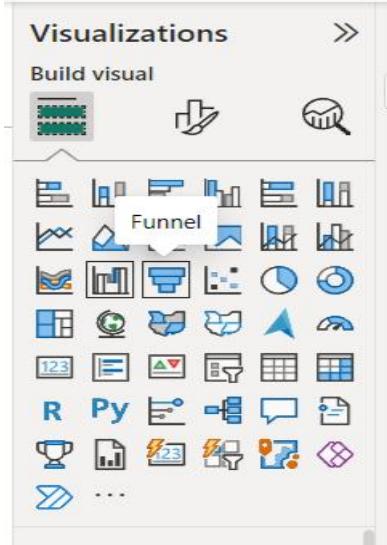
STEP : 03 Drag and drop Category field.



2. FUNNEL CHART

- **Definition:** Shows data as stages in a process, highlighting the progressive reduction.
- **POWER BI PROCEDURE**

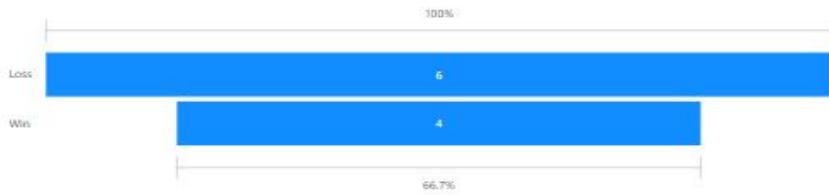
1. Select Funnel Chart.



2. Add to Category

A screenshot of the Power BI 'Data' pane. It shows a search bar at the top followed by a list of data items. Some items have checkboxes next to them, and several checkboxes are checked. On the left side, there's a 'Visualizations' pane with icons, a 'Category' dropdown set to 'Match Result', and sections for 'Values' and 'Toolips'. The 'Category' section has a dropdown menu open.

Count of Home Team, Sum of Home Team Goals and Count of Player ID by Match Result



Screenshot of the Power BI desktop interface showing the report structure and filters.

The report title is "Count of Home Team, Sum of Home Team Goals and Count of Player ID by Match Result".

The visual is a horizontal bar chart showing the count of home team goals for Win and Loss match results.

The Filters pane shows:

- Search: Select all, Team 1, Team 2, Team 3, Team 4, Team 5
- Player ID is (All)
- Filter type: Advanced filtering
- Show items when the value is less than
- Cross-report: Off
- Keep all filters: On

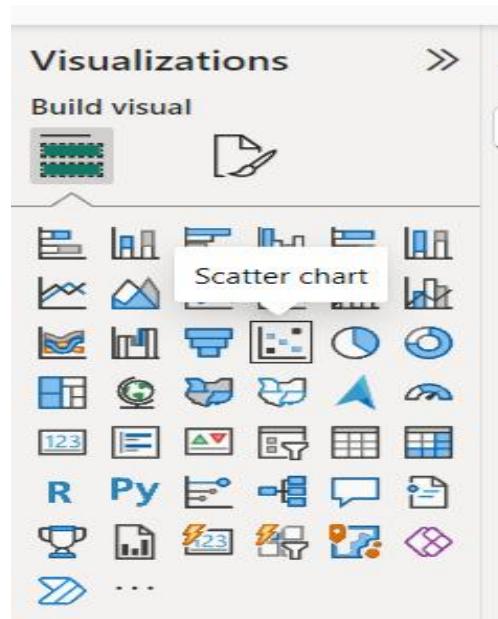
The Data pane shows:

- Build visual
- Values: Add data fields here
- Drill through
- Add drill-through fields here
- Items:

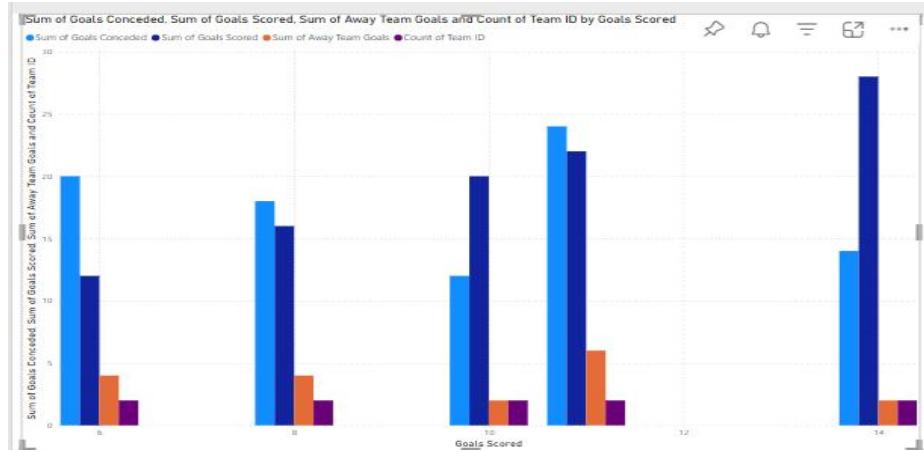
 - Sum of Home Team Goals
 - Home Team
 - Match Result
 - Minutes Played
 - Name
 - Player ID
 - Points
 - Position
 - Team

3. SCATTER PLOT WITH PLAY AXIS

- **Definition:** Displays the relationship between two variables, using a dynamic play axis for time-based changes.
- **Power BI Procedure:**
 1. Select **Scatter Plot**.



A screenshot of the Power BI 'Data' pane. On the left, there's a list of fields with checkboxes next to them. Several fields have checkboxes checked: 'Goals Scored' (under X-axis), 'Sum of Goals Conceded...' (under Y-axis), and 'Team ID' (under another section). The 'Data' pane also shows a search bar at the top and a list of other fields like 'Date', 'Goals', 'Home Team', etc., with checkboxes next to them.



Power BI My workspace

File View Reading view Mobile layout Open data model Copilot

Filters Visualizations Data

Sum of Goals Conceded, Sum of Goals Scored, Sum of Away Team Goals and Count of Team ID by Goals Scored

Filters

- Count of Team ID is (All)
- Goals Scored is (All)
- Sum of Away Team Goals is (All)
- Sum of Goals Conceded is (All)
- Sum of Goals Scored is (All)

Visualizations

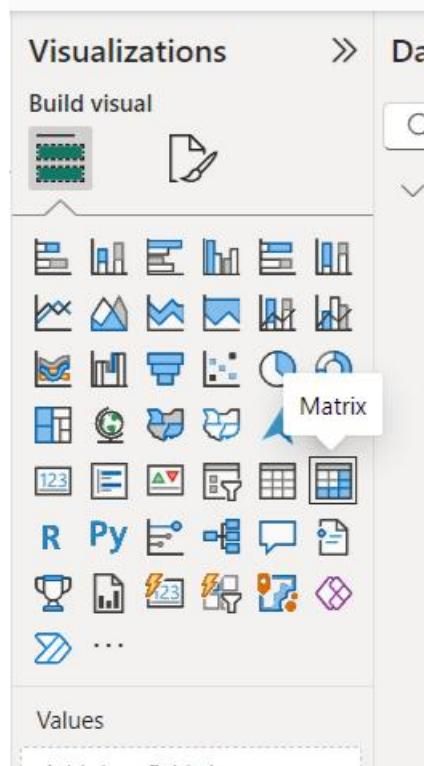
Data

- Date
- Σ Goals
- Σ Goals Conced...
- Σ Goals Scored ...
- Home Team
- Σ Home Team G...
- Match ID
- Match Result
- Minutes Played
- Name
- Player ID
- Points
- Position
- Team
- Σ Team ID
- Team Name
- Σ Yellow Cards

4. HEAT MAP

- **Definition:** Uses color to represent data intensity.
- **Power BI Procedure:**

1. Create a Matrix Visualization



A screenshot of the Power BI 'Data' pane. It shows the 'Build visual' section with the 'Matrix' icon selected. Below it, the 'Rows' section has 'Team' assigned. The 'Values' section contains the expression 'Sum of Goals Scored'. On the right, a list of data fields is shown with several checked: 'Goals Scored', 'Match ID', 'Team', and 'Yellow Cards'. Other fields like 'Date', 'Goals Conceded', 'Home Team', 'Match Result', 'Minutes Played', 'Name', 'Player ID', 'Points', and 'Position' are listed without checkboxes.

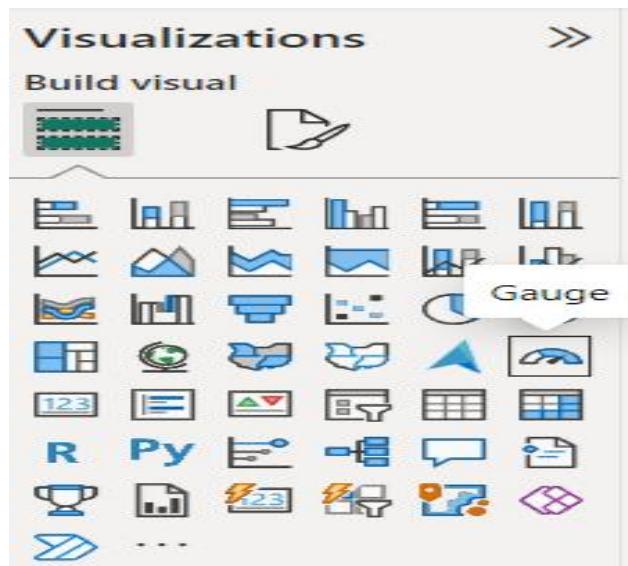
The screenshot shows the Power BI desktop application. On the left, there's a navigation bar with 'Home', 'Create', 'Browse', and 'Workspaces'. Under 'Workspaces', 'My workspace' is selected, and 'Untitled report' is currently open. The main area displays a table with columns: Team, Sum of Goals Scored, Count of Match ID, Sum of Yellow Cards, and Count of Team. The data includes rows for Team 2 through Team 5, a 'Total' row, and a final row for 'Sum of Goals Scored'. To the right of the table is the 'Visualizations' pane, which contains a 'Build visual' section with a grid of chart icons. Below this are sections for 'Filters', 'Rows', 'Columns', and 'Values'. The 'Values' section has 'Sum of Goals Scored' selected. The 'Data' pane on the far right lists various data fields with checkboxes, many of which are checked.

GAUGE CHART

- **Definition:** A gauge chart shows a value within a range, indicating performance relative to a target.

POWER BI PROCEDURE:

1. Select Gauge Chart.



Visualizations

Build visual



Value

- Sum of Home Team G...
- Minimum value
- Count of Player ID
- Maximum value

Add data fields here

Data

Search: fantasy_football_mer...

- \sum Assists
- Away Team
- \sum Away Team G...
- \sum Clean Sheets
- Date
- \sum Goals
- \sum Goals Conced...
- \sum Goals Scored
- Home Team
- \sum Home Tea...
- \sum Match ID
- Match Result
- \sum Minutes Played
- Name
- \sum Player ID
- \sum Points

File ▾ View ▾ Reading view Mobile layout Open data model

Copilot              

Home  Create  Workspaces  Untitled report 

Sum of Home Team Goals and Count of Player ID



Filters

Search: fantasy_football_mer...

Filters on this visual

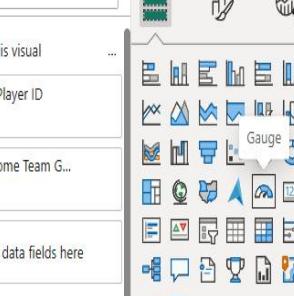
- Count of Player ID is (All)
- Sum of Home Team G... is (All)
- Add data fields here

Filters on this page

- Player ID is (All)
- Filter type
- Show items when the value

Visualizations

Build visual



Data

Search: fantasy_football_mer...

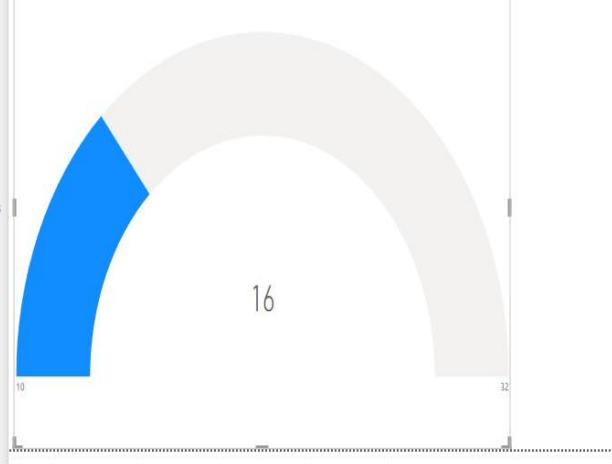
- \sum Assists
- Away Team
- \sum Away Team G...
- \sum Clean Sheets
- Date
- \sum Goals
- \sum Goals Conced...
- \sum Goals Scored
- Home Team
- \sum Home Tea...
- \sum Match ID
- Match Result
- \sum Minutes Played
- Name
- \sum Player ID
- \sum Points

File ▾ View ▾ Reading view Mobile layout Open data model

Copilot              

Home  Create  Workspaces  Untitled report 

Sum of Home Team Goals and Count of Player ID



Filters

Search: fantasy_football_mer...

Filters on this visual

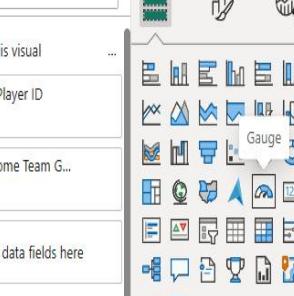
- Count of Player ID is (All)
- Sum of Home Team G... is (All)
- Add data fields here

Filters on this page

- Player ID is (All)
- Filter type
- Show items when the value

Visualizations

Build visual



Data

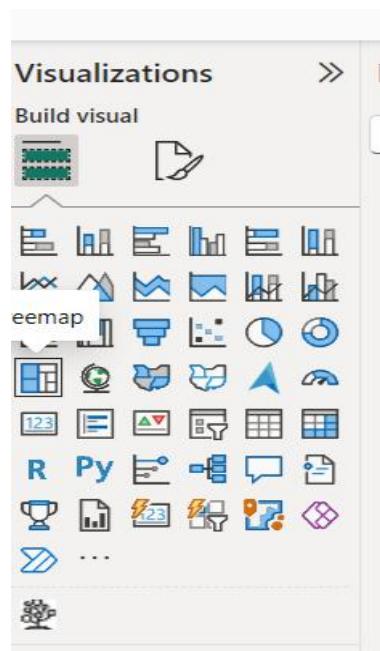
Search: fantasy_football_mer...

- \sum Assists
- Away Team
- \sum Away Team G...
- \sum Clean Sheets
- Date
- \sum Goals
- \sum Goals Conced...
- \sum Goals Scored
- Home Team
- \sum Home Tea...
- \sum Match ID
- Match Result
- \sum Minutes Played
- Name
- \sum Player ID
- \sum Points



TREE MAP

- **Definition:** A tree map represents hierarchical data using nested rectangles.
 - **Power BI Procedure:**
 1. Select Tree Map.



Visualizations

Build visual

Data

Search

fantasy_football_mer...

- Σ Assists
- Away Team
- Σ Away Team G...
- Σ Clean Sheets
- Date
- Σ Goals
- Σ Goals Conced...
- Σ Goals Scored
- Home Team
- Σ Home Team G...
- Σ Match ID
- Match Result
- Σ Minutes Played
- Name
- Σ Player ID
- Σ Points

Power BI My workspace

File **View** **Reading view** **Mobile layout** **Open data model**

Filters

Visualizations

Data

Search

fantasy_football_mer...

- Σ Assists
- Away Team
- Σ Away Team G...
- Σ Clean Sheets
- Date
- Σ Goals
- Σ Goals Conced...
- Σ Goals Scored
- Home Team
- Σ Home Team G...
- Σ Match ID
- Match Result
- Σ Minutes Played
- Name
- Σ Player ID
- Σ Points

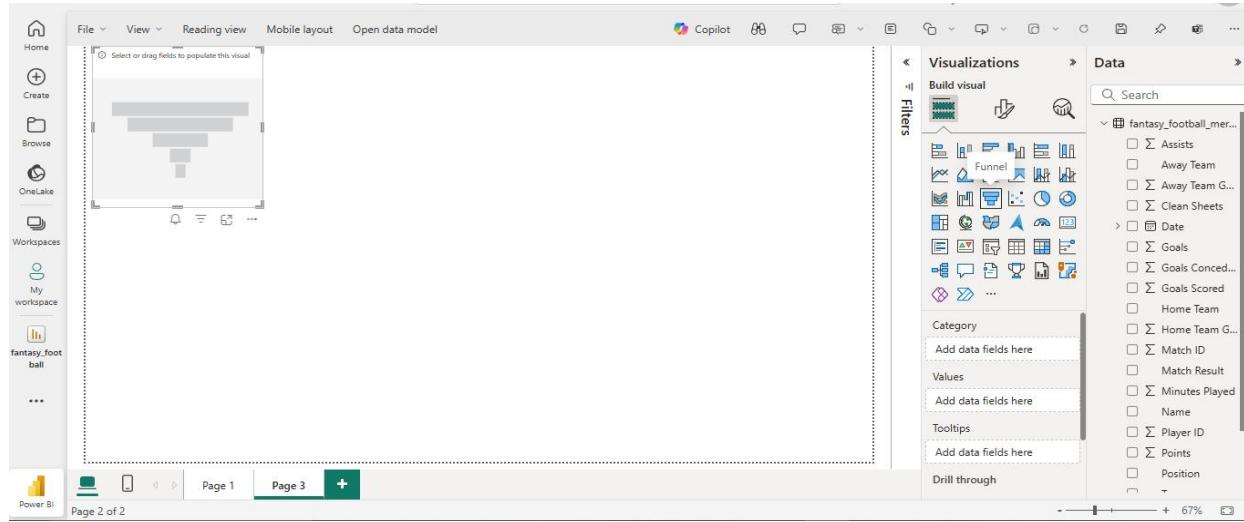
Untitled report

Page 1 | Page 2 | Page 3 | **Page 4** | +

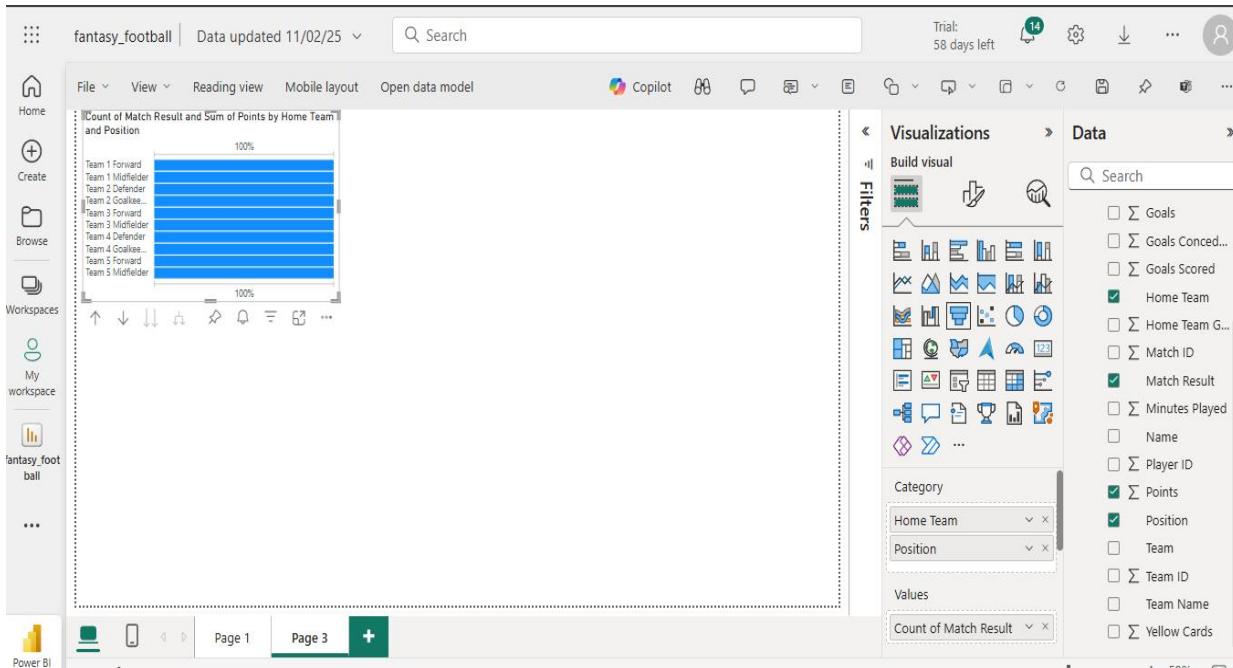
EXPERIMENT NUMBER – 1

Sharing Reports and Dashboards

STEP 1: Select the Funnel Chart from the Visualizations pane.



STEP 2: Drag and drop Category field. Home team, position,points ,match result



STEP 3: Select the Slicer Chart from the Visualizations pane.

The screenshot shows a Power BI report titled "Count of Match Result and Sum of Points by Home Team and Position". On the left, there's a bar chart with blue bars representing different team positions. To its right is a slicer chart with two circular sliders labeled "Goals" and "Position". The "Visualizations" pane on the right is open, showing various chart icons. The "Slicer" icon is highlighted, indicating it is selected. The "Data" pane on the far right lists various data fields like Goals, Points, and Team.

STEP 4: Drag and drop goals to field

This screenshot shows the same Power BI report as before, but now the "Goals" field is selected in the "Data" pane. A tooltip "fantasy_football_merged 2[Goals]" appears over the slicer. The "Visualizations" pane remains open, showing the Slicer icon.

STEP 5: Select the Gauge Chart from the Visualizations pane.

The screenshot shows the report with the gauge chart selected. The "Visualizations" pane now has the "Gauge" icon highlighted. The "Data" pane still shows the "Goals" field selected. The gauge chart itself is visible on the page, showing a semi-circular scale with a needle pointing towards the center.

STEP 6: Drag and drop goals to field

The screenshot shows a Power BI report with two visualizations: a bar chart and a gauge chart. The bar chart displays the count of match results and sum of points by home team and position. The gauge chart shows the sum of goals, with a value of 33. The Data pane on the right lists various football-related metrics, with 'Goals' selected.

STEP 7: Select the Matrix Chart from the Visualizations pane.

The screenshot shows a Power BI report with a matrix visualization. The matrix shows the sum of goals by position (Goals, Defender, Forward, Goalkeeper, Midfielder) across different teams. The Data pane on the right lists various football-related metrics, with 'Goals' and 'Position' selected.

STEP 8: Drag and drop goals to field rows-goals,colum-position,values-points.

The screenshot shows a Power BI report with a matrix visualization. The matrix shows the sum of goals by position (Goals, Defender, Forward, Goalkeeper, Midfielder) across different teams. The Data pane on the right lists various football-related metrics, with 'Goals', 'Position', and 'Points' selected.

STEP 9: Select the Clustered columns Chart from the Visualizations pane.

The screenshot shows the Power BI interface with the Visualizations pane open. The 'Clustered column chart' icon is highlighted in the pane. The main area displays a bar chart titled 'Sum of Yellow Cards by Goals' with categories 0, 1, 2, 3, 4, 5, and 6. Below it is a data grid for 'Goals' with columns: Goals, Defender, Forward, Goalkeeper, Midfielder, and Total. The total row shows values: 0, 14, 31, 14, 31, 90.

Goals	Defender	Forward	Goalkeeper	Midfielder	Total
0	8	14	14	8	0
1	6	6	6	6	24
2					10
3					10
4					12
5					12
6					12
Total	14	31	14	31	90

STEP 10: Drag and drop goals to field x axis-goals,y axis- yellow card.

The screenshot shows the Power BI interface with the Visualizations pane open. The 'Clustered column chart' icon is highlighted in the pane. The main area displays a bar chart titled 'Sum of Yellow Cards by Goals' with categories 0, 1, 2, 3, 4, 5, and 6. Below it is a data grid for 'Goals' with columns: Goals, Defender, Forward, Goalkeeper, Midfielder, and Total. The total row shows values: 0, 14, 31, 14, 31, 90. A tooltip 'fantasy_football_merged 2'[Goals]' is shown over the chart.

Goals	Defender	Forward	Goalkeeper	Midfielder	Total
0	8	14	14	8	0
1	6	6	6	6	24
2					10
3					10
4					12
5					12
6					12
Total	14	31	14	31	90

STEP 11: Select the Treemap columns Chart from the Visualizations pane.

The screenshot shows the Power BI interface with the Visualizations pane open. The 'Treemap' icon is highlighted in the pane. The main area displays a treemap chart and a data grid for 'Goals' with columns: Goals, Defender, Forward, Goalkeeper, Midfielder, and Total. The total row shows values: 0, 14, 31, 14, 31, 90.

Goals	Defender	Forward	Goalkeeper	Midfielder	Total
0	8	14	14	8	0
1	6	6	6	6	24
2					10
3					10
4					12
5					12
6					12
Total	14	31	14	31	90

STEP 12: Drag and drop goals to field Category -home team, result,values- sum of home team goal and points .

The screenshot shows a Power BI workspace with three visualizations:

- Count of Match Result and Sum of Points by Home Team and Position:** A horizontal bar chart showing the percentage distribution of teams across positions.
- Goals:** A gauge chart showing the sum of goals as 33.
- Sum of Yellow Cards by Goals:** A bar chart showing the sum of yellow cards per goal.

The **Visualizations** pane on the right lists various chart types, and the **Data** pane shows filters for **Home Team** and **Match Result**.

Goals	Defender	Forward	Goalkeeper	Midfielder	Total
0	8	14	6	12	40
1	6	10	10	12	38
2	10	12	9	12	43
3	12	10	10	12	44
4	10	12	9	12	43
5	12	10	10	12	44
6	10	12	9	12	43
7	12	10	10	12	44
Total	14	31	14	31	90

STEP 13: Select the Waterfall columns Chart from the Visualizations pane.

The screenshot shows a Power BI workspace with three visualizations:

- Count of Match Result and Sum of Points by Home Team and Position:** A horizontal bar chart showing the percentage distribution of teams across positions.
- Goals:** A gauge chart showing the sum of goals as 33.
- Sum of Yellow Cards by Goals:** A bar chart showing the sum of yellow cards per goal.

The **Visualizations** pane on the right lists various chart types, and the **Data** pane shows filters for **Home Team** and **Match Result**.

Goals	Defender	Forward	Goalkeeper	Midfielder	Total
0	8	14	6	12	40
1	6	10	10	12	38
2	10	12	9	12	43
3	12	10	10	12	44
4	10	12	9	12	43
5	12	10	10	12	44
6	10	12	9	12	43
7	12	10	10	12	44
Total	14	31	14	31	90

STEP 14: Drag and drop goals to field Category -player id,breakdown -points,y axis -goal scored,

The screenshot shows a Power BI workspace with three visualizations:

- Count of Match Result and Sum of Points by Home Team and Position:** A horizontal bar chart showing the percentage distribution of teams across positions.
- Goals:** A gauge chart showing the sum of goals as 33.
- Sum of Yellow Cards by Goals:** A bar chart showing the sum of yellow cards per goal.

The **Visualizations** pane on the right lists various chart types, and the **Data** pane shows filters for **Player ID** and **Points**.

Goals	Defender	Forward	Goalkeeper	Midfielder	Total
0	8	14	6	12	40
1	6	10	10	12	38
2	10	12	9	12	43
3	12	10	10	12	44
4	10	12	9	12	43
5	12	10	10	12	44
6	10	12	9	12	43
7	12	10	10	12	44
Total	14	31	14	31	90

STEP 15: Select the text box for heading

The screenshot shows the Microsoft Power BI interface. On the left, there's a navigation bar with options like Home, Create, Browse, Workspaces, and My workspace. The main area displays a dashboard with several visualizations: a bar chart of match results, a gauge chart showing a value of 33, and three treemap charts. The 'Format text box' pane is open on the right, specifically the 'Title' section, where the text 'FOOTBALL_ANALYSIS' is entered. Below the title, there are sections for Effects, Header icons, and Alt text.

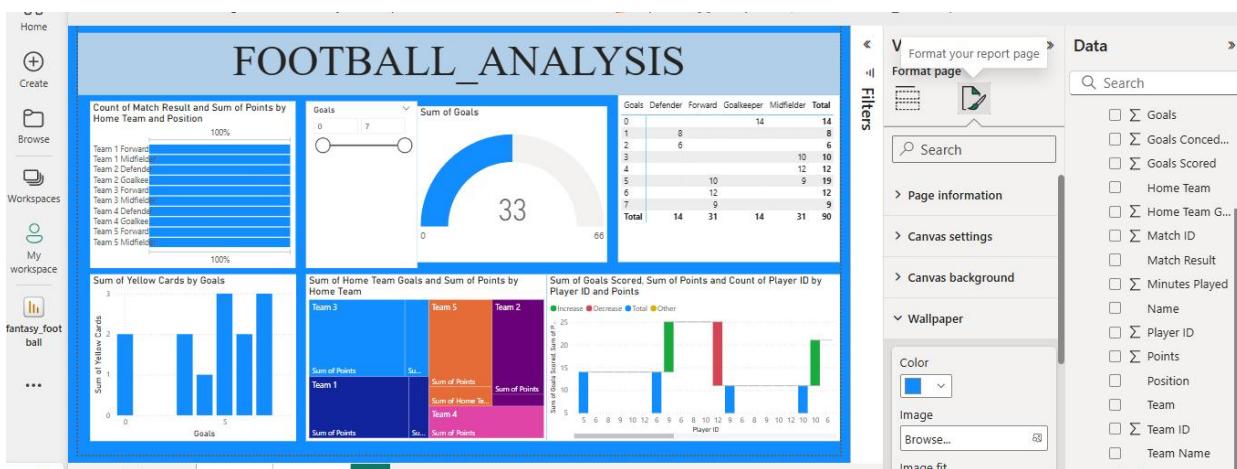
STEP 16: Give heading as FOOTBALL_ANALYSIS

This screenshot shows the same Power BI dashboard as the previous one, but the heading 'FOOTBALL_ANALYSIS' has been updated. It is now displayed in a large, bold, black font centered at the top of the page. The rest of the dashboard, including the charts and the circular gauge, remains the same.

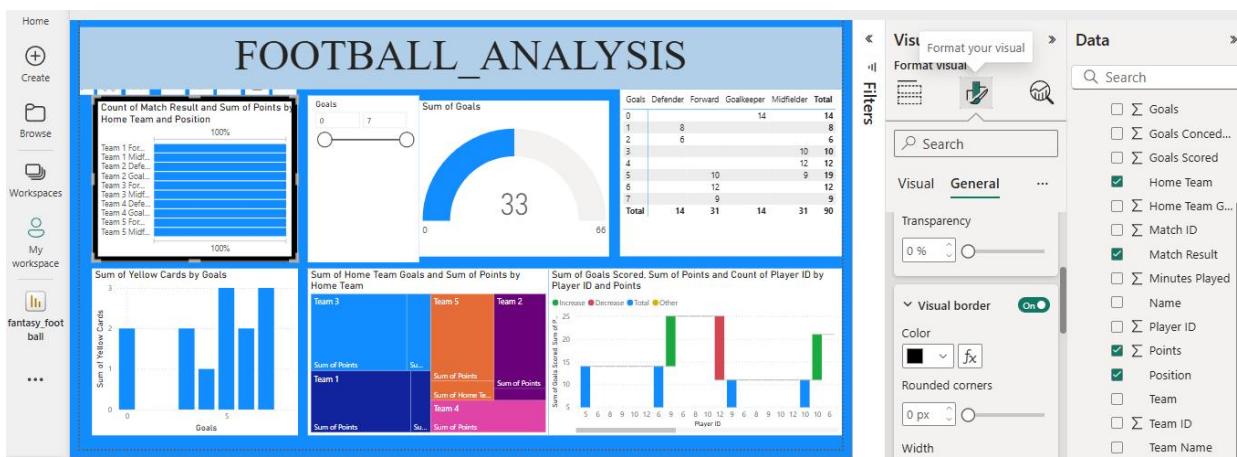
STEP 17: Give background color for heading go to effect<background color < drag color

This screenshot shows the Power BI dashboard with the heading 'FOOTBALL_ANALYSIS' now having a blue background color. This change was made through the 'Effects' section of the 'Format text box' pane, where the 'Background' option was enabled and a blue color was chosen. The rest of the dashboard elements remain unchanged.

STEP 18: select format your report page<wallpaper<select color



STEP 19: border-select format your report page<general<effect<visual border<select color for all charts



STEP 20:final output

The screenshot shows a Power BI report titled "FOOTBALL ANALYSIS". The report contains four visualizations:

- A bar chart titled "Count of Match Result and Sum of Points by Home Team" showing percentages for Team 1 through Team 5.
- A gauge chart titled "Sum of Goals" with a value of 33.
- A treemap visualization titled "Sum of Home Team Goals and Sum of Points by Home Team" showing goals and points for Teams 1 through 5.
- A stacked bar chart titled "Sum of Goals Scored, Sum of Points and Count of Player ID by Player ID and Points" showing player statistics.

The Power BI interface on the left includes icons for Home, Create, Browse, Workspaces, and My workspace. The ribbon at the top has File, View, Reading view, Mobile layout, Open data model, Copilot, and other options. The right side features a "Visualizations" pane with a "Format visual" button and a "Data" pane with a search bar and a list of data fields. The "Data" pane includes filters for various football metrics like Goals, Defenders, Forward, Goalkeeper, Midfielder, Total, and Match Result.

STEP 21: save the report

The screenshot shows the same Power BI report as above, but the "File" menu is open, displaying various save options:

- Save**: Save this report, Save this report (highlighted)
- Print**: Save a copy of this report
- Embed**: Securely embed this report in a website or portal
- Embed in SharePoint Online**: Get a link to securely embed this report in a SharePoint page
- Publish to web**: Embed this report for public access by anyone on the Internet
- Export to PowerPoint**: Export this report as a PowerPoint presentation
- Export to PDF**: Export this report to a PDF file
- Download this file**: Download this file

The report content and the right-hand Power BI interface (Visualizations and Data panes) remain the same as in the previous step.