

EXPERIMENT – 7

AIM :

Create Dashboard using Power BI for the Spots Data Analysis with the following information:

1. Prepare a rank ordered list of top 10 countries with most players. Which countries are producing the most numbers of footballers that plays at this level?
2. Plot the distribution of overall rating vs. age of players. Interpret what is the age after which a player stops improving?
3. Which type of offensive players tends to get paid the most: the striker, the right-winger, or the left-winger? Visualize through a plot
4. Create different types of charts, tables and Use slicers and filters effectively.
5. Design interactive dashboards.
6. Analyze the data to identify meaningful insights and make data driven decisions

Prepare a rank ordered list of top 10 countries with most players. Which countries are producing the most numbers of footballers that plays at this level?

Rank-Ordered List of Top 10 Countries with Most Athletes

We can create a measure to count the number of athletes per country and then use that measure to rank the countries.

1. Create a Measure for Athlete Count:

```
AthleteCount =  
COUNTROWS('athlete_events (2)')
```

2. Create a Table for Top 10 Countries:

```
Top10CountriesByAthletes =  
TOPN(  
    10,  
    SUMMARIZE(  
        'athlete_events (2)',  
        'athlete_events (2)'[NOC],  
        "TotalAthletes",  
        [AthleteCount]  
    ),  
    [TotalAthletes],  
    DESC  
)
```

2. Countries Producing the Most Footballers

Similarly, we need to create a measure for counting footballers:

1. Create a Measure for Footballer Count:

```
FootballerCount =
CALCULATE (
    COUNTROWS ('athlete_events
(2) '),
    'athlete_events (2)' [Sport] =
"Football"
)
```

2. Create a Table for Top Countries in Football:

```
TopCountriesByFootballers =
TOPN (
    10,
    SUMMARIZE (
        FILTER (
            'athlete_events (2)',
            'athlete_events
(2)' [Sport] = "Football"
        ),
        'athlete_events (2)' [NOC],
        "TotalFootballers",
        [FootballerCount]
    ),
    [TotalFootballers],
    DESC
)
```

NOC	Sum of TotalAthletes	NOC	Sum of TotalFootballers
AUS	7638	BRA	306
CAN	9733	ESP	164
FRA	12758	FRA	212
GBR	12256	GER	193
GER	9830	ITA	240
HUN	6607	JPN	220
ITA	10715	MEX	184
JPN	8444	NGR	163
SWE	8339	SWE	241
USA	18853	USA	301
Total	105173	Total	2224

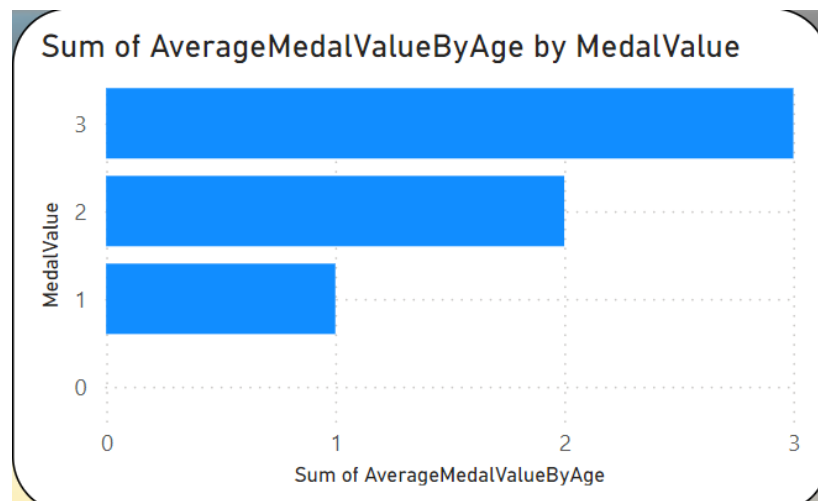
Plot the distribution of overall rating vs. age of players. Interpret what is the age after which a player stops improving?

Create the Medal Value Column: Use the following DAX code to convert the Medal column into numeric values.

```
MedalValue =  
SWITCH(  
    'athlete_events (2)'[Medal],  
    "Gold", 3,  
    "Silver", 2,  
    "Bronze", 1,  
    0  
)
```

2. Create the Average Medal Value by Age Measure:

```
AverageMedalValueByAge =  
AVERAGEX(  
    VALUES('athlete_events (2)'[Age]),  
    CALCULATE(  
        AVERAGE('athlete_events  
(2)'[MedalValue])  
    )  
)
```



Which type of offensive players tends to get paid the most: the striker, the right-winger, or the left-winger? Visualize through a plot

Map Player Types: You can create a calculated column to categorize sports into offensive player types (Striker, Right-Winger, Left-Winger). This is an assumption based on the data you have:

```
PlayerType =  
SWITCH(  
    TRUE(),  
    'athlete_events (2)'[Sport] IN  
    {"Football", "Soccer"}, "Striker",  
    'athlete_events (2)'[Sport] IN  
    {"Hockey", "Basketball"}, "Right-  
Winger",  
    'athlete_events (2)'[Sport] IN  
    {"Baseball", "Lacrosse"}, "Left-  
Winger",  
    "Other"  
)
```

Create Different Types of Charts, Tables, and Use Slicers and Filters Effectively

Objective: To visualize data in various forms to communicate insights clearly.

Steps:

Add Visualizations:

- *Select Visualization Type:* From the "Visualizations" pane, choose a chart type (e.g., bar chart, line chart, pie chart).
- *Drag Fields:* Drag and drop fields onto the visual to populate it with data.

Customize Visuals:

- *Format Visual:* Use the "Format" pane to customize the appearance of the visual (e.g., colors, labels, titles).
- *Add Legends and Tooltips:* Enhance visuals by adding legends and tooltips for better clarity.

Use Slicers and Filters:

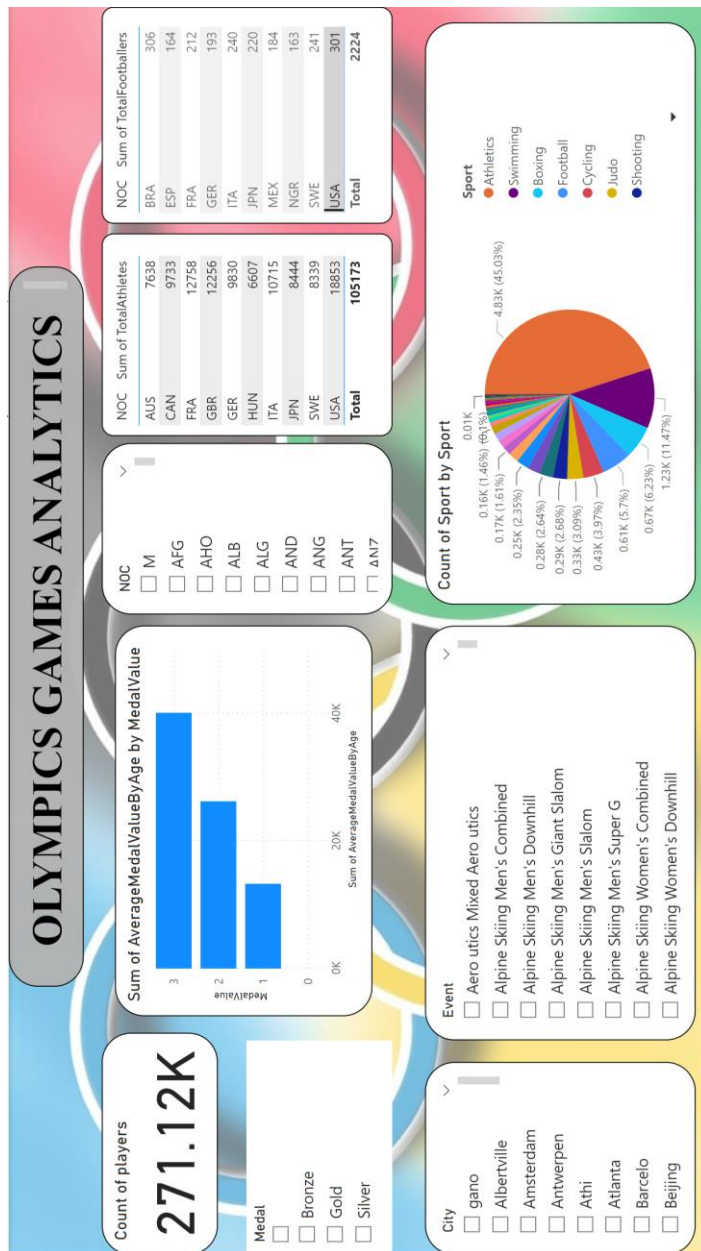
- *Slicers:* Add slicers to allow users to filter data dynamically.
- *Filters:* Apply visual-level, page-level, or report-level filters as needed

Design Interactive Dashboards

Objective: To create a user-friendly and interactive interface for data exploration.

Ensure the dashboard is intuitive and user-friendly.

Interactive elements should enhance the user experience without overwhelming them.



Count of Sport by Sport

Sport	Count	Percentage
Athletics	4.83K	45.03%
Swimming	1.23K	11.47%
Judo	0.67K	6.23%
Boxing	0.61K	5.7%
Football	0.43K	3.97%
Cycling	0.33K	3.09%
Shooting	0.29K	2.68%
Other Sports	0.17K - 0.01K	1.61% - 0.1%

City

☐ gano

☐ Albertville

☐ Amsterdam

☐ Antwerpen

☐ Athi

☐ Atlanta

☐ Barcelo

☐ Beijing

Event

☐ Aero utes Mixed Aero utes

☐ Alpine Skiing Men's Combined

☐ Alpine Skiing Men's Downhill

☐ Alpine Skiing Men's Giant Slalom

☐ Alpine Skiing Men's Slalom

☐ Alpine Skiing Men's Super G

☐ Alpine Skiing Women's Combined

☐ Alpine Skiing Women's Downhill

Result:

Olympics Games Analytics dashboard is generated according to the requirements and insights are generated from the dashboard