General Sir John Kotelawala Defence University

Faculty of Management, Social Science and Humanities Department of Languages

BSc. in Applied Data Science Communication

Advanced SQL and Cloud Databases
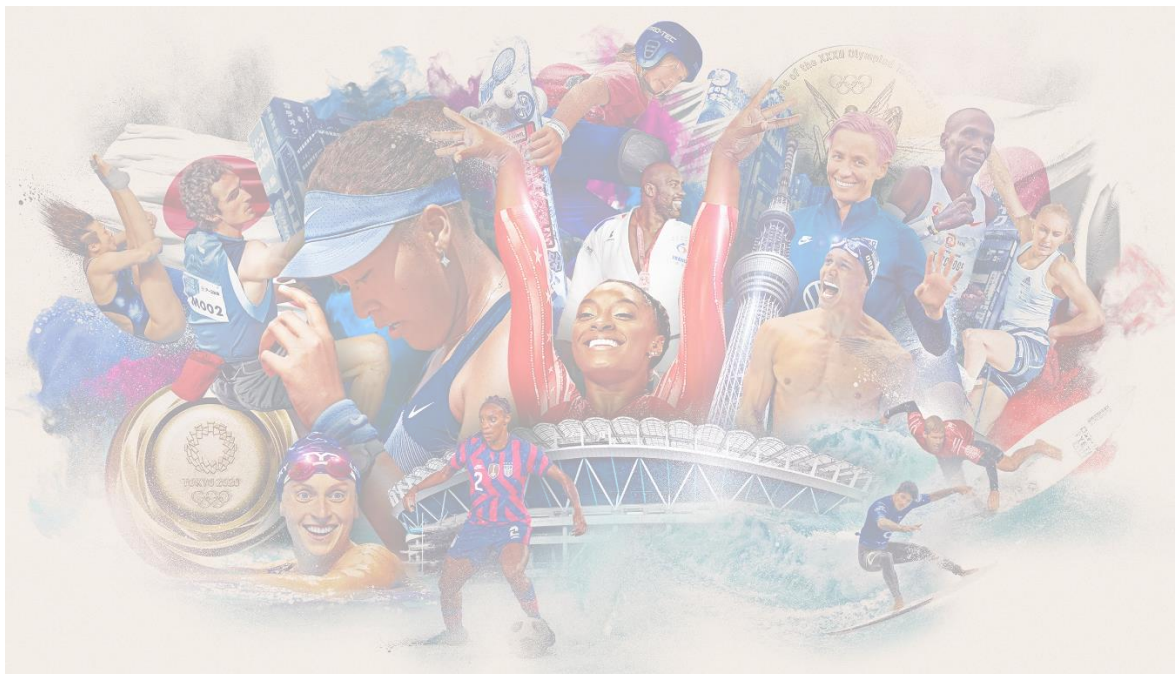
Assignment 01

Task 2

D/ADC/23/0012 - S.A.R Maleesha
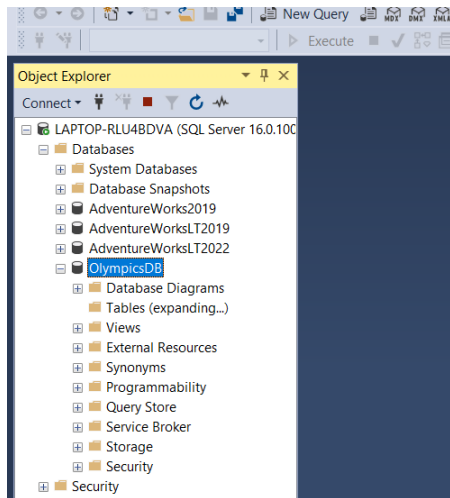
D/ADC/23/0032 - W.A.K.N Wedagedara

D/ADC/23/0033 - K.G.K Chani

D/ADC/23/0039 - H.W Kaweesha

TASK 2

- Create an OlympicsDB new database in SQL Server

- We imported the dataset into the OlympicHistory table within the OlympicsDB database. The data was cleaned and preprocessed by handling missing values, correcting inconsistencies, and removing duplicates. A connection between Report Builder and the OlympicsDB was successfully established, allowing direct access to the OlympicHistory table. Finally, we tested and confirmed the ability to query the table from the Report Builder.

1. PARTICIPATION TRENDS

Create Parameters

PARTICIPATION TRENDS

ID	Name	Sex	Age	Height	Weight	Team	Year	Sport
[ID]	[Name]	[Sex]	[Age]	[Height]	[Weight]	[Team]	[Year]	[Sport]
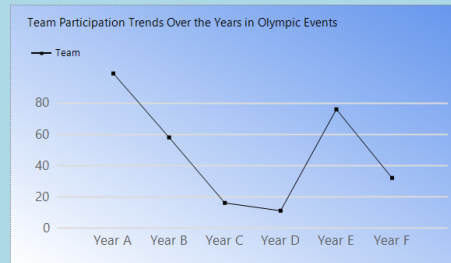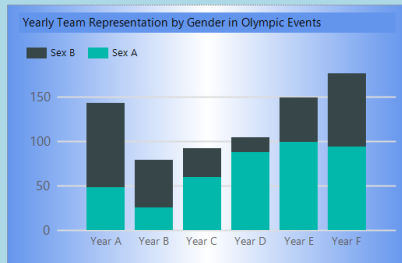
Yearly Team Representation by Gender in Olympic Events

Team Participation Trends Over the Years in Olympic Events

SEX F   Sport Tennis

PARTICIPATION TRENDS

ID	Name	Sex	Age	Height	Weight	Team	Year	Sport
5428	Lena Sofia Alexandra Arvidsson	F	24	176	69	Sweden	2008	Tennis
5428	Lena Sofia Alexandra Arvidsson	F	28	176	69	Sweden	2012	Tennis
5428	Lena Sofia Alexandra Arvidsson	F	28	176	69	Sweden	2012	Tennis
5455	Shinobu Asagoe	F	24	168	58	Japan	2000	Tennis
5455	Shinobu Asagoe	F	28	168	58	Japan	2004	Tennis
5455	Shinobu Asagoe	F	28	168	58	Japan-2	2004	Tennis
132098	Xu Yifan	F	27	165	60	China-2	2016	Tennis
57169	Jana Kandarr	F	23	180	68	Germany	2000	Tennis
57202	Kaia Kanepi	F	19	181	75	Estonia	2004	Tennis
57202	Kaia Kanepi	F	19	181	75	Estonia	2004	Tennis

No current report server

Yearly Team Representation by Gender in Olympic Events

Team Participation Trends Over the Years in Olympic Events
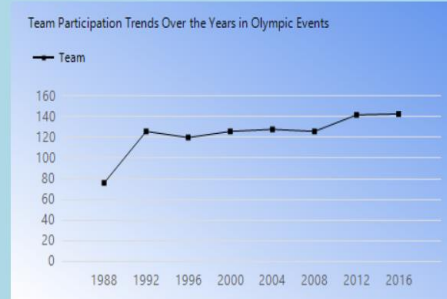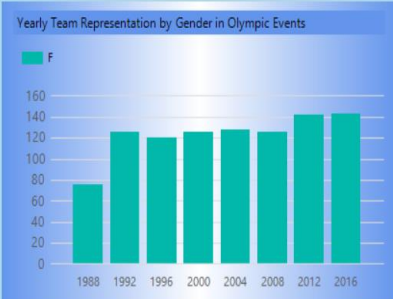
Trend Analysis

1. **Yearly Team Representation by Gender (Bar Chart on the Left)**:
   o The chart displays the participation of a gender category labeled "F" over time.
   o **Consistent growth** is observed between 1988 and 1996, with a steep increase between 1988 and 1992.
   o Between 1996 and 2016, the participation remains relatively **stable**, with values fluctuating slightly around 140-160 participants per event.
   o The **initial low participation in 1988** contrasts with the higher and more consistent representation in subsequent years.
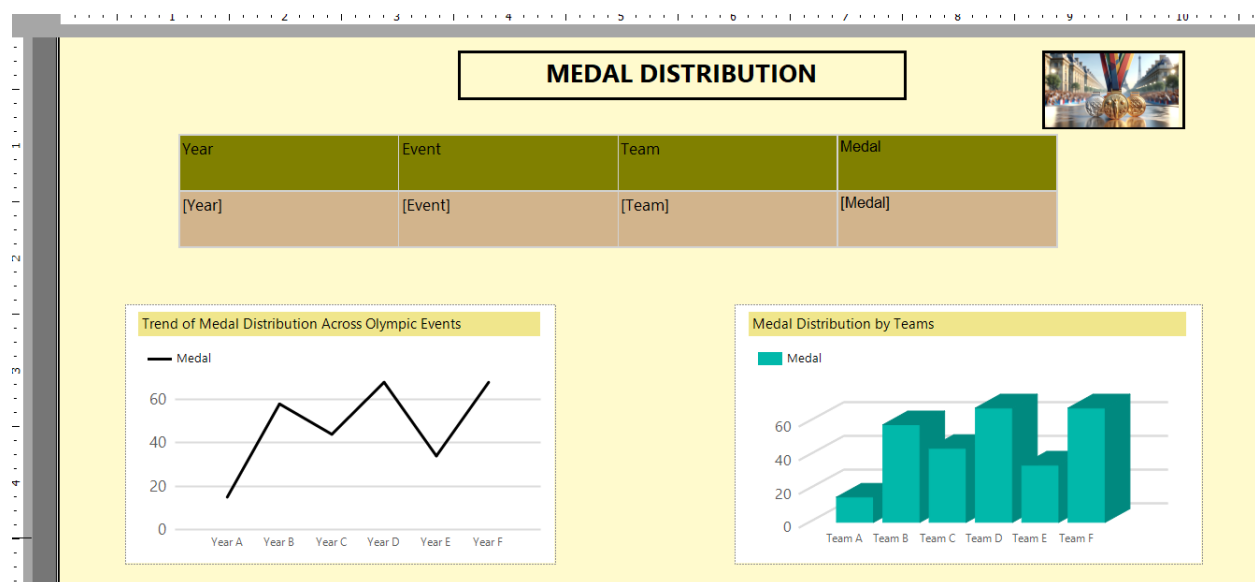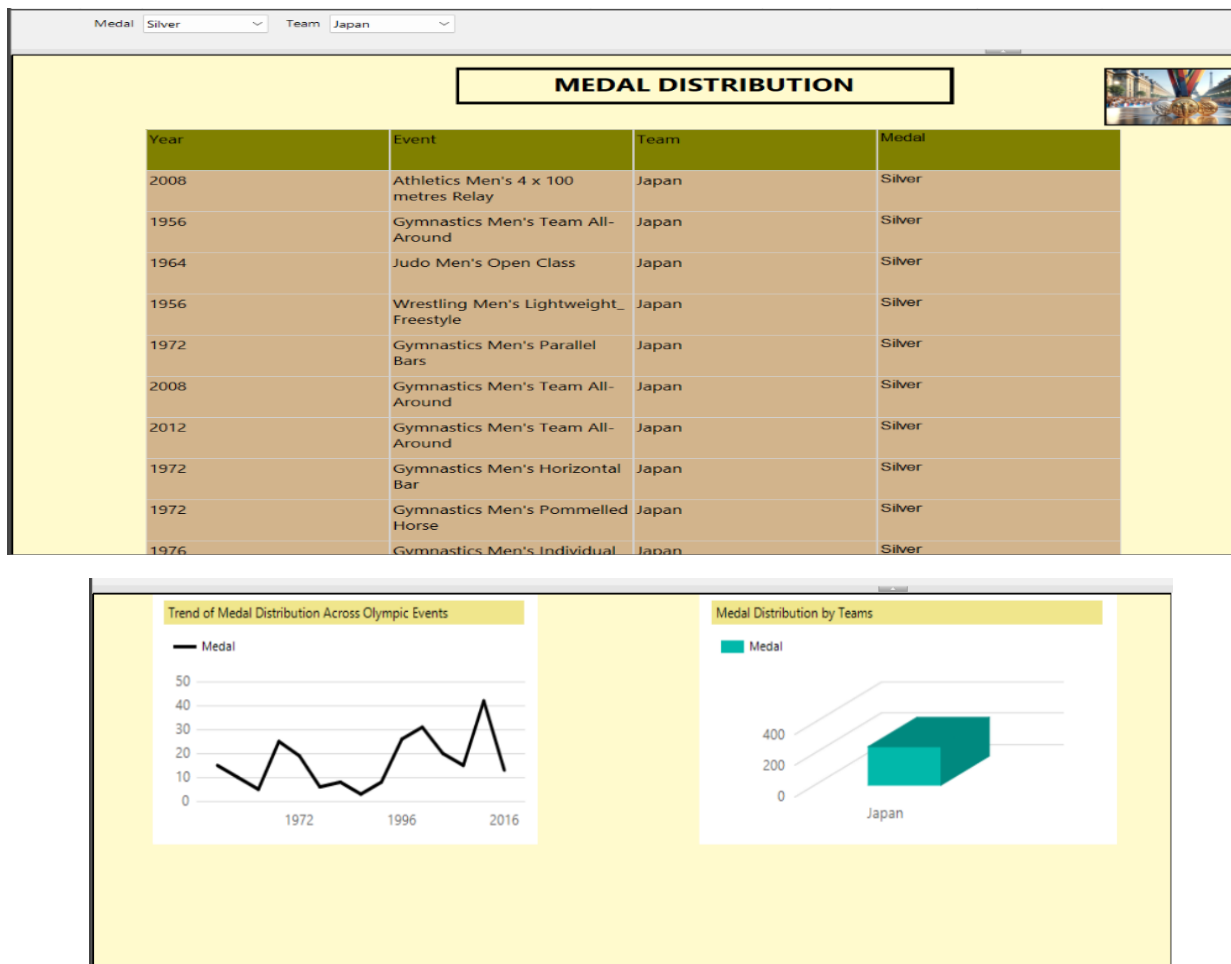2. **Team Participation Trends Over the Years (Line Chart on the Right)**:
   o This chart illustrates overall team participation trends across the same years.
   o There was a **sharp rise from 1988 to 1992**, followed by a more **gradual increase and stabilization** from 1992 to 2016.
   o Despite minor fluctuations, the trend from 1996 onwards shows a **general upward trajectory** with a slight peak around 2012 and stability in 2016.

Key Patterns:

- **Rapid early growth**: Both charts show significant growth in team participation between 1988 and 1992, indicating a period of rapid expansion.
- **Stabilization**: From 1996 onward, both gender representation and overall team participation levels appear to **stabilize** with minor fluctuations.
- **Sustained high levels**: Team participation maintains a **high level of engagement** from 1992 onward, reflecting consistency in Olympic participation.

2. MEDAL DISTRIBUTION

MEDAL DISTRIBUTION

Year	Event	Team	Medal
2008	Athletics Men's 4 x 100 metres Relay	Japan	Silver
1956	Gymnastics Men's Team All-Around	Japan	Silver
1964	Judo Men's Open Class	Japan	Silver
1956	Wrestling Men's Lightweight_ Freestyle	Japan	Silver
1972	Gymnastics Men's Parallel Bars	Japan	Silver
2008	Gymnastics Men's Team All-Around	Japan	Silver
2012	Gymnastics Men's Team All-Around	Japan	Silver
1972	Gymnastics Men's Horizontal Bar	Japan	Silver
1972	Gymnastics Men's Pommelled Horse	Japan	Silver
1976	Gymnastics Men's Individual	Japan	Silver

Trend of Medal Distribution Across Olympic Events

Medal Distribution by Teams

3. Trend Analysis

• **The trend of Medal Distribution Across Olympic Events (Line Chart on the Left)**:

- There appears to be a **fluctuating pattern** in the number of silver medals won by Japan over time.
- From 1972 to 2016, there were **notable peaks** around 1996 and 2016, where Japan won significantly higher medals.
- There are also periods of **decline**, particularly around the 1980s and early 2000s, where the medal count dropped before rising again.
- The **highest peak** in silver medal distribution seems to occur around the 2016 Olympic Games.
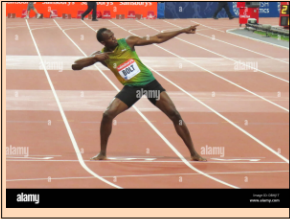
  ❖ **Medal Distribution by Teams (Bar Chart on the Right)**:

- The bar chart indicates that Japan won around **400 silver medals**.

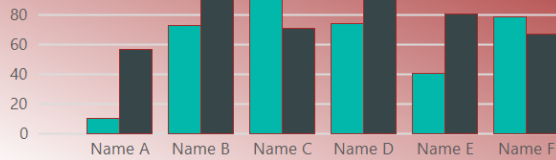# Athlete Performance

Athlete Performance

	ID	Name	Team	NOC	Event	Medal
	[ID]	[Name]	[Team]	[NOC]	[Event]	[Medal]

Medals Count by Athlete Name

Medal A Medal B

Team Finland   Medal Gold

Athlete Performance

ID	Name	Team	NOC	Event	Medal
17	Paavo Johannes Aaltonen	Finland	FIN	Gymnastics Men's Team All-Around	Gold
17	Paavo Johannes Aaltonen	Finland	FIN	Gymnastics Men's Horse Vault	Gold
17	Paavo Johannes Aaltonen	Finland	FIN	Gymnastics Men's Pommelled Horse	Gold
57234	Kaarlo Olavi Kangasniemi	Finland	FIN	Weightlifting Men's Middle-Heavyweight	Gold
57723	Pertti Johannes Karp	Finland	FIN	Rowing Men's Single Sculls	Gold
57723	Pertti Johannes Karp	Finland	FIN	Rowing Men's Single Sculls	Gold
57723	Pertti Johannes Karp	Finland	FIN	Rowing Men's Single Sculls	Gold
98894	Heli Orvokki Rantanen	Finland	FIN	Athletics Women's Javelin Throw	Gold
99186	Kaj Tapio Rautavaara	Finland	FIN	Athletics Men's Javelin	Gold
99423	Esko Tapani	Finland	FIN	Sailing Mixed	Gold
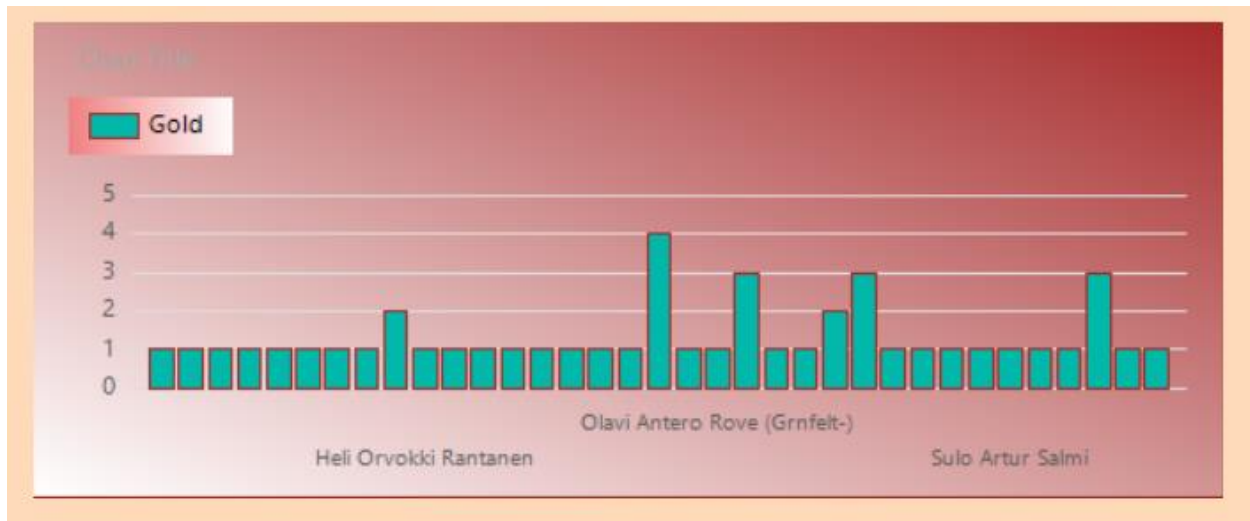
General Trends:

1. **High Achievement in Specific Events**:
2. **Repeated Success by Certain Athletes**: Some athletes appear multiple times in the table, winning multiple gold medals across different events. This suggests consistency in top performance by certain individuals specializing in multiple categories.
3. **Strong Focus on Strength and Skill-Based Sports**: