



CSE302: Database Systems (Section No. 1)

[Summer 2024]

Project Report

Paris 2024 Olympic Database Management System

<https://apex.oracle.com/pls/apex/r/supew117/paris-2024-olympic-database-management-system/>

Submitted by:

Student ID	Student Name	Contribution Percentage
2019-3-60-117	Sumiaya Ahmed	100%

1. E-R Model of the Project

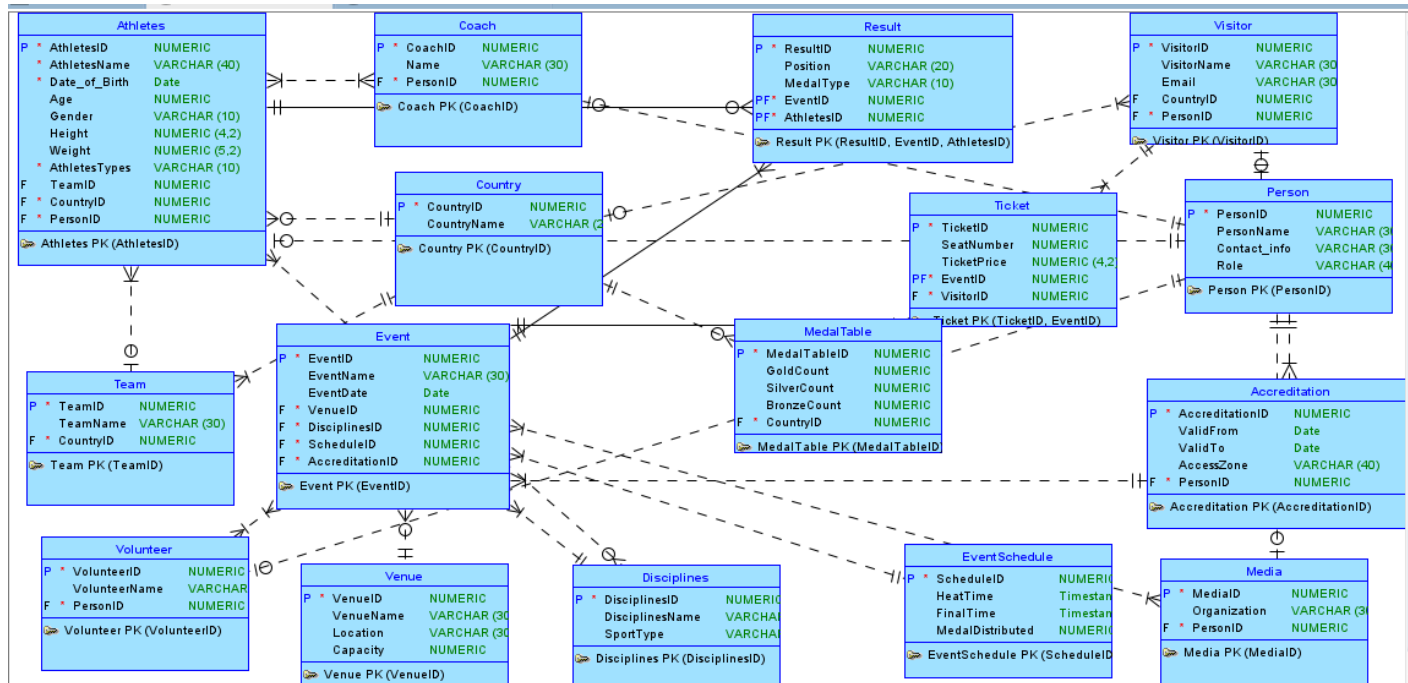


Figure 1: Logical data model

2. Relational Data Model of the Project

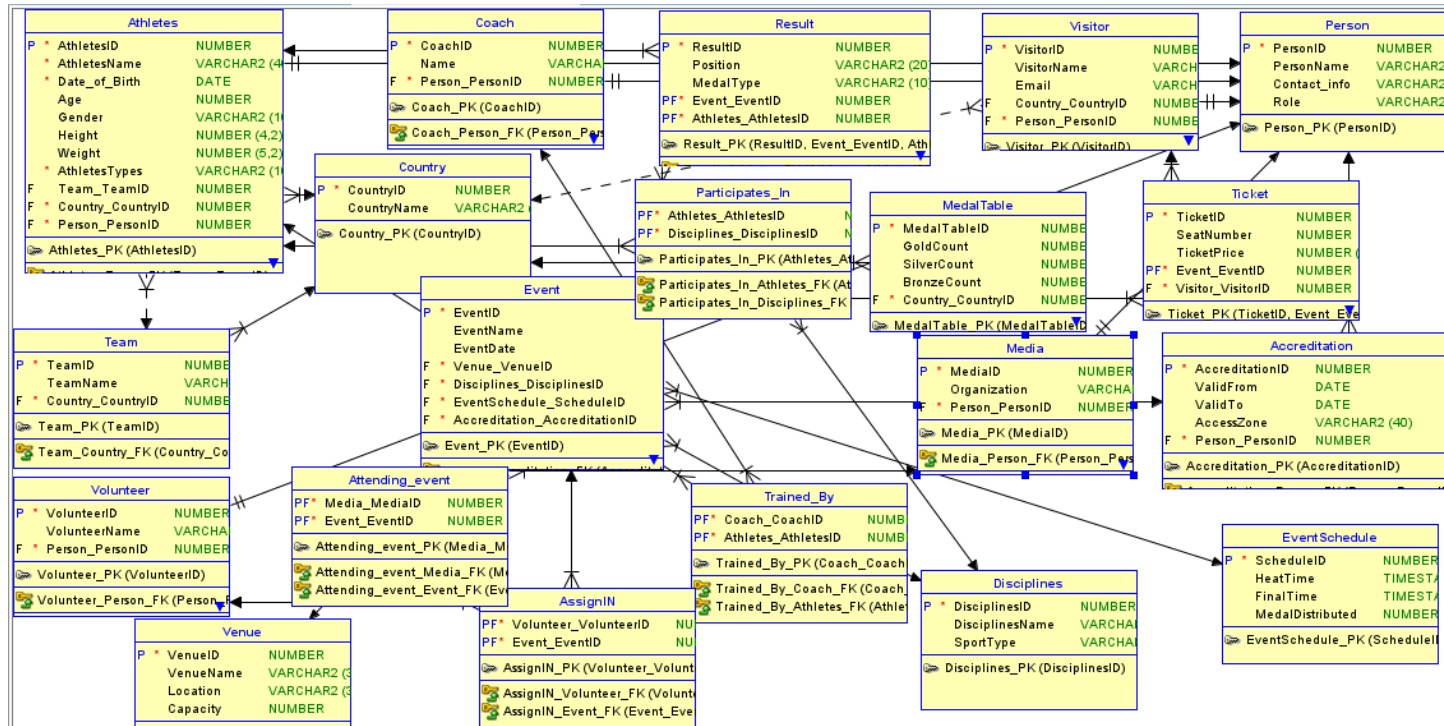


Figure 2: Relational Data model

3. Implementation Checklist

Description	Remarks
Project ID	
Workspace Name	
Workspace Email	sumaiyaahmedcse@gmail.com
Workspace Password	*****
Authentication Type	Custom
Username and Password to Login	

write username ADMIN	*****
MANAGER	*****
OPERATOR	password CSE302
Uploaded and Displayed Images in Reports	yes
Implemented Page-wise Authorization	yes
Number of Reports with Forms	13
Number of Master-detail Forms	4
Number of Reports based on Queries, Aggregate Queries	2
Number of Parameterized Reports	3
Number of Graphs/Charts	7
Included any trigger/other feature which is not taught in class. If yes, please explain briefly.	<p>1. Trigger name: medaltable_update Description : It automatically updates the values of 'Medaltable' table after inserting data in 'Result' table.</p> <p>2. Trigger name: trg_update_accreditation Description : It automatically updates the 'Accreditation' table after inserting data on 'Person' table.</p> <p>3. Designed homepage and login using html and css.</p>
Write the most unique feature/functionality in your application or the page of your application that you are proud of. Explain briefly.	<p>A key feature of this application is the intuitive navigation menu with search functionality, enabling users to easily find and access various sections of the Olympic database. The homepage, designed with an engaging slider, showcases essential events and updates, enhancing user engagement.</p> <p>Additionally, login page is design using HTML and CSS, prioritizing user experience with its clean and professional design.</p>

4. Reports with Forms

Report Page Number and Name	Form Page Number and Name	Table
Athlete Report (page 7)	Athlete Form (page 2)	Athletes
Event Report (page 84)	Event Form (page 9)	Event
Venue Report (page 13)	Venue Form (page 12)	Venue
Accreditation Report (page 10)	Accreditation Form (page 16)	Accreditation
Team Report (page 17)	Team Form (page 19)	Team
Media Report (page 85)	Media Form (page 22)	Media
Volunteer Report (page 86)	Volunteer Form (page 26)	Volunteer
Discipline Report (page 30)	Discipline Form (page 29)	Discipline
Coach Report (page 87)	Coach Form (page 32)	Coach
Person Report (page 36)	Person Form (page 35)	Person
Visitor Report (page 88)	Visitor Form (page 38)	Visitor
Country Report (page 40)	Country Form (page 37)	Country
Event_Schedule_Report (page 82)		EventSchedule

Screenshots of reports:

Figure 4.1(Athlete):

Athletesid	Athletesname	Date of Birth	Age	Gender	Height	Weight	Athletestypes
2201	Michael Phelps	6/30/1985	39	Male	1.93	88.5	Swimmer
2202	Usain Bolt	8/21/1986	38	Male	1.95	94	Sprinter
2203	Simone Biles	3/14/1997	27	Female	1.42	47.5	Gymnast
2204	Katie Ledecky	3/17/1997	27	Female	1.83	73	Swimmer
2205	Allyson Felix	11/18/1985	39	Female	1.68	55	Sprinter
2206	Yohan Blake	12/26/1989	35	Male	1.8	80	Sprinter
2207	Shelly-Ann Fraser-Pryce	12/27/1986	37	Female	1.52	52	Sprinter
2208	Neymar Jr	2/5/1992	32	Male	1.75	68	Footballer
						67	Footballer

Figure 4.2(event):

Paris 2024 Olympic Database Management System						
admin						
EVENT Report...						
<input type="text"/> <input type="button" value="Go"/> <input type="button" value="Actions"/>						
Eventid	Eventname	Eventdate	Venue Name	Disciplines Name	Eventschedule id	Accreditation zone
96	Tennis Men's Singles Final	7/30/2024	EiffelTower stadium	Tennis	27	Volunteer Zone B
91	100m Men's Sprint Final	7/25/2024	Stade de France	Athletics	21	Athlete Zone B
92	200m Women's Freestyle Final	7/26/2024	Bercy Arena	Swimming	23	Athlete Zone B
90	Archery Women's Final	8/3/2024	Parc des Princes	Swimming	22	Visitor Zone B
94	800m Women's Relay	7/28/2024	Aquatics Centre	Athletics	25	Coach Zone B
97	Basketball Women's Final	7/31/2024	Grand Palais	Basketball	28	Media Zone A
98	Football Men's Final	8/1/2024	South Paris Arena	Football	29	Media Zone B

Figure 4.3(venue):

Paris 2024 Olympic Database Management System				
admin				
Venue Report				
<input type="text"/> <input type="button" value="Go"/> <input type="button" value="Actions"/>				
Venue id	Venuname	Location	Capacity	
70	Parc des Princes	Paris	55000	
71	Stade de France	Paris	80000	
72	Aquatics Centre	Paris	15000	
73	Bercy Arena	Paris	70000	
74	Champ-de-Mars Arena	Paris	35000	
75	EiffelTower stadium	Paris	40000	
76	Grand Palais	Paris	85000	

Figure 4.4(accreditation):

Paris 2024 Olympic Database Management System				
admin				
ACCREDITATION Report...				
<input type="text"/> <input type="button" value="Go"/> <input type="button" value="Actions"/>				
Accreditationid	Validfrom	Validto	Accesszone	Person Name
104	7/1/2024	7/31/2024	Coach Zone B	Jama Aden
106	7/1/2024	7/31/2024	Volunteer Zone B	Oliver Smith
109	7/1/2024	7/31/2024	Visitor Zone A	John Doe
102	7/1/2024	7/31/2024	Athlete Zone B	Usain Bolt
11	9/25/2024	9/25/2025	Media Zone	Kate Moss
103	7/1/2024	7/31/2024	Coach Zone A	Patrick Mouratoglou
107	7/1/2024	7/31/2024	Media Zone A	John Anderson

Figure 4.5(team):

Paris 2024 Olympic Database Management System			
admin			
TEAM Report...			
<input type="text"/> <input type="button" value="Go"/> <input type="button" value="Actions"/>			
Teamid	Teamname	Country Countryid	Country Name
83	USA Gymnastics	United States	United states
81	USA Swimming	United States	United states
85	Brazil Football	Brazil	Brazil
82	Jamaican Sprinters	France	France
89	France Basketball	Australia	France
84	USA Track and Field	United States	United states
87	Canada Ice Hockey	Japan	Canada

Figure 4.6(media):

Paris 2024 Olympic Database Management System			
admin			
MEDIA Report			
<input type="text"/> <input type="button" value="Go"/> <input type="button" value="Actions"/>			
Mediaid	Organization	Person Name	
4401	BBC Sports	John Anderson	
4404	NBC Olympics	Rebecca Lowe	
4402	ESPN	Jane McCarthy	
4405	NBC Sports	Clarence Seedorf	
4403	Sky Sports	Tom Rinaldi	
4406	CNN	Anderson Cooper	

Figure 4.7(volunteer):

VOLUNTEER Report			
<input type="text"/> <input type="button" value="Go"/> <input type="button" value="Actions"/>			
Volunteerid	Volunteername	Person Name	
5505	Isabella Taylor	Isabella Taylor	
5506	Jack Wilson	Jack Wilson	
5504	Lucas Brown	Lucas Brown	
5501	Emily Johnson	Emily Johnson	
5503	Sophia Martinez	Sophia Martinez	
5507	Isla Evans	Isla Evans	
5502	Oliver Smith	Oliver Smith	

Figure 4.8(discipline):

Paris 2024 Olympic Database Management System			admin
Home	Disciplines Report		
Forms	<input type="text"/> <input type="button" value="Go"/> <input type="button" value="Actions"/>		
Reports			
Athlete Report			
EVENT Report...			
Venue Report			
ACCREDITATION Report...			
Disciplines id	Disciplinesname	Sporttype	
41	Athletics	Track & Field	
42	Swimming	Aquatics	
43	Gymnastics	Artistic	
44	Boxing	Combat	
45	Basketball	Team Sport	
46	Football	Team Sport	
47	Tennis	Racquet Sport	

Figure 4.coach():

Paris 2024 Olympic Database Management System			admin
Home	COACH Report		
Forms	<input type="text"/> <input type="button" value="Go"/> <input type="button" value="Actions"/>		
Reports			
Athlete Report			
EVENT Report...			
Venue Report			
ACCREDITATION Report...			
Coachid	Name	Person Name	
3311	Phil Jackson	Phil Jackson	
3312	Patrick Mouratoglou	Patrick Mouratoglou	
3306	Jürgen Grobler	Andrea Fuentes	
3310	Steve Kerr	Martina Navratilova	
3303	Toni Minichiello	Bobby Kersee	
3305	Alberto Salazar	Toni Nadal	
3307	Orjan Madsen	Rene Meulenstein	

Figure 4.10(person):

Paris 2024 Olympic Database Management System			admin
Home	Person Report		
Forms	<input type="text"/> <input type="button" value="Go"/> <input type="button" value="Actions"/>		
Reports			
Athlete Report			
EVENT Report...			
Venue Report			
ACCREDITATION Report...			
Person id	Personname	Contact Info	Role
201	Michael Phelps	mphelps@olympics.com	Athlete
202	Usain Bolt	ubolt@olympics.com	Athlete
203	Simone Biles	sbiles@olympics.com	Athlete
204	Katie Ledecky	kledacky@olympics.com	Athlete
205	Allyson Felix	afelix@olympics.com	Athlete
206	Yohan Blake	yblake@olympics.com	Athlete
207	Shelly-Ann Fraser-Pryce	safraser@olympics.com	Athlete

Figure 4.11(visitor):

Paris 2024 Olympic Database Management System

admin

VISITOR Report

Search: [] Go Actions

Visitorid	Visitorname	Email	Country Name	Person Name
7703	Carlos Sanchez	csanchez@visitors.com	Japan	Carlos Sanchez
7709	Tom Jackson	tjackson@visitors.com	South Africa	Tom Jackson
7711	Daniel Carter	dcarter@visitors.com	United States	Daniel Carter
7706	Emily White	ewhite@visitors.com	Canada	Emily White
7701	John Doe	johndoe@visitors.com	United States	John Doe
7704	Lucy Black	lblack@visitors.com	Germany	Lucy Black
7707	Mohamed Ali	mali@visitors.com	China	Mohamed Ali

Figure 4.12(country):

Paris 2024 Olympic Database Management System

admin

Country Report

Search: [] Go Actions

Countryid	Countryname
1	United States
2	France
3	Japan
4	Germany
5	Australia
6	Canada
7	China

Figure 4.13(eventschedule):

Paris 2024 Olympic Database Management System

admin

Event_Schedule_Report

Search: [] Go Actions

Scheduleid	Eventname	Heattime	Finaltime	Medaldistributed
21	100m Men's Sprint Final	25-JUL-2024 15:00:00	25-JUL-2024 17:00:00	1
22	Archery Women's Final	26-JUL-2024 14:00:00	26-JUL-2024 16:30:00	1
23	200m Women's Freestyle Final	27-JUL-2024 10:00:00	27-JUL-2024 12:30:00	1
24	400m Men's Relay	28-JUL-2024 16:00:00	28-JUL-2024 18:00:00	0
25	800m Women's Relay	29-JUL-2024 09:30:00	29-JUL-2024 11:45:00	1
26	Diving Men's Final	30-JUL-2024 13:00:00	30-JUL-2024 15:30:00	1
27	Tennis Men's Singles Final	31-JUL-2024 17:00:00	31-JUL-2024 19:00:00	0

Screenshots of Forms:

Figure 4.14(Athlete):

The screenshot displays the 'Athletes Form' within the 'Paris 2024 Olympic Database Management System'. The interface includes a top navigation bar with the system name and a user profile 'admin'. A left sidebar contains a menu with 'Home', 'Forms', and several form options: 'Athletes Form' (selected), 'Event Form', 'Venue Form', 'Accreditation Form', and 'Team Form'. The main content area is titled 'Athletes Form' and contains a form with the following fields: 'Athlete Id', 'Athletes Name', 'Date Of Birth' (with a calendar icon), and 'Age'.

Figure 4.15(event):

The screenshot displays the 'Event Form' within the 'Paris 2024 Olympic Database Management System'. The interface is consistent with the previous one, showing the same top bar and sidebar. The main content area is titled 'Event Form' and contains a form with the following fields: 'Event id', 'Eventname', 'Eventdate' (with a calendar icon), and 'Venueid'.

Figure 4.16(venue):

The screenshot displays the 'Venue Form' within the 'Paris 2024 Olympic Database Management System'. The interface is consistent with the previous ones, showing the same top bar and sidebar. The main content area is titled 'Venue Form' and contains a form with the following fields: 'Venue Id', 'Venuename', 'Location', and 'Capacity'.

Figure 4.17(accreditation):

The screenshot displays the 'Paris 2024 Olympic Database Management System' interface. The top navigation bar is blue with the system name and a user profile 'admin'. A dark sidebar on the left contains a search bar and a menu with 'Home' and 'Forms'. Under 'Forms', there are links for 'Athletes Form', 'Event Form', 'Venue Form', 'Accreditation Form' (which is highlighted), and 'Team Form'. The main content area is titled 'Accreditation Form' and contains a form with the following fields: 'Accreditation id' (text input), 'Validfrom' (text input with a calendar icon), 'Validto' (text input with a calendar icon), and 'Accesszone' (dropdown menu).

Figure 4.18(team):

This screenshot shows the 'Team Form' within the same system. The sidebar menu is identical, with 'Team Form' now highlighted. The main content area is titled 'Team Form' and contains a form with the following fields: 'Team id' (text input), 'Teamname' (text input), and 'Country name' (dropdown menu). At the bottom of the form, there are 'Cancel' and 'Create' buttons.

Figure 4.19(media):

This screenshot displays the 'Media Form' in the system. The sidebar menu remains the same, with 'Media Form' highlighted. The main content area is titled 'Media Form' and contains a form with the following fields: 'Media id' (text input), 'Organization' (text input), and 'Person name' (dropdown menu). 'Cancel' and 'Create' buttons are located at the bottom of the form.

Figure 4.20(volunteer):

The screenshot shows the 'Volunteer Form' interface. On the left is a dark sidebar with a search bar and a menu containing 'Home', 'Forms', 'Athletes Form', 'Event Form', 'Venue Form', 'Accreditation Form', and 'Team Form'. The main content area has a blue header with the system name and a user profile 'admin'. Below the header, the form title 'Volunteer Form' is displayed. The form itself contains three input fields: 'Volunteer Id', 'Volunteername', and 'Person name' (which is a dropdown menu). At the bottom of the form are 'Cancel' and 'Create' buttons.

Figure 4.21(discipline):

The screenshot shows the 'Disciplines Form' interface. It features the same sidebar and header as the previous form. The main content area displays the title 'Disciplines Form'. The form contains three input fields: 'Disciplines Id', 'Disciplinesname' (a dropdown menu), and 'Sporttype' (a dropdown menu). 'Cancel' and 'Create' buttons are located at the bottom right of the form.

Figure22 .coach:

The screenshot shows the 'Coach Form' interface. It maintains the same sidebar and header. The main content area shows the title 'Coach Form'. The form includes three input fields: 'Coach Id', 'Name', and 'Person Name' (a dropdown menu). 'Cancel' and 'Create' buttons are positioned at the bottom right of the form.

Figure 4.23(person):

The screenshot displays the 'Person Form' within the 'Paris 2024 Olympic Database Management System'. The interface includes a top navigation bar with the system name and a user profile 'admin'. A left sidebar contains a search bar and a menu with 'Home' and 'Forms'. The 'Forms' menu is expanded, showing options for 'Athletes Form', 'Event Form', 'Venue Form', 'Accreditation Form', and 'Team Form'. The main content area is titled 'Person Form' and contains a form with four input fields: 'Person ID', 'Personname', 'Contact Info', and 'Role'.

Figure 4.24(visitor):

The screenshot displays the 'Visitor Form' within the 'Paris 2024 Olympic Database Management System'. The interface is consistent with the previous screenshot, showing the same top navigation bar, sidebar, and expanded 'Forms' menu. The main content area is titled 'Visitor Form' and contains a form with four input fields: 'Visitor id', 'Visitortname', 'Email', and 'Country Name' (which is a dropdown menu).

Figure 4.25(country):

The screenshot displays the 'Country Form' within the 'Paris 2024 Olympic Database Management System'. The interface is consistent with the previous screenshots, showing the same top navigation bar, sidebar, and expanded 'Forms' menu. The main content area is titled 'Country Form' and contains a form with two input fields: 'COUNTRYID' and 'Countryname'. At the bottom of the form, there are two buttons: 'Cancel' and 'Create'.

5. Master-Detail Form

Page Number and Name	Master Table (Parent)	Detail Table (Child)
Event_Result Page No- 3	Event	Result
Person_Accreditation Page No - 88	Person	Accreditation
Team_Athlets Page - 52	Team	Athletes
Venue_Event Page No - 55	Venue	Event

Person-wise Accreditation Information

Person: Usain Bolt (Athlete)

Accreditationid	Validfrom	Validto	Accesszone
102	7/1/2024	7/31/2024	Athlete Zone B

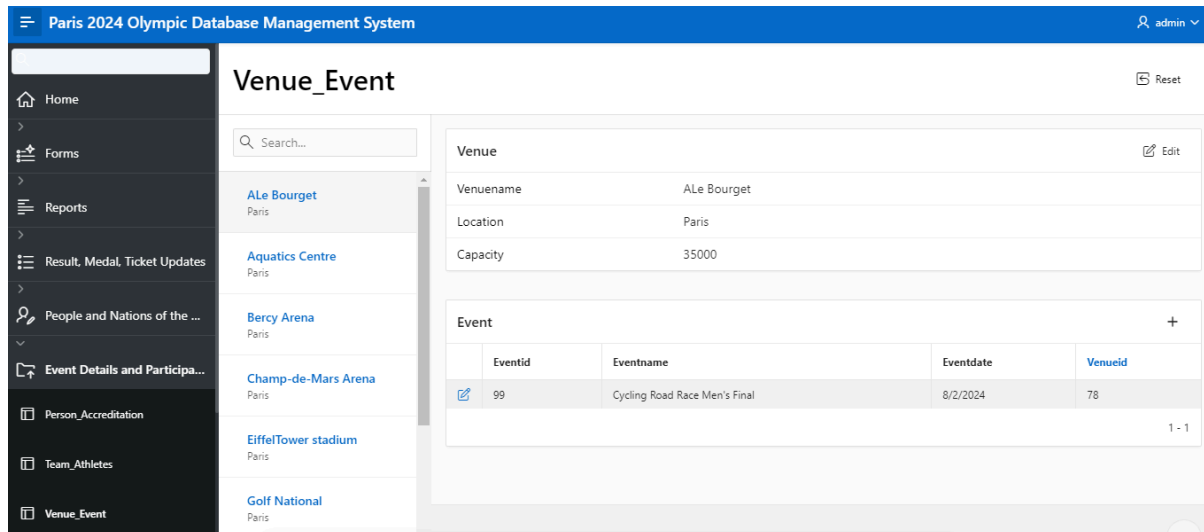
Figure 5.1: Person-wise Accreditation Information

Team-wise Athletes Information

Team: Argentina Football

Athletesid	Athletesname	Date Of Birth	Age	Gender	Height	Weight	Athletestypes
2209	Lionel Messi	6/24/1987	37	Male	1.7	67	Footballer

Figure 5.2: Team-wise Athletes Information



Paris 2024 Olympic Database Management System admin

Venue_Event Reset

Search...

Venue Edit

Venue name Ale Bourget

Location Paris

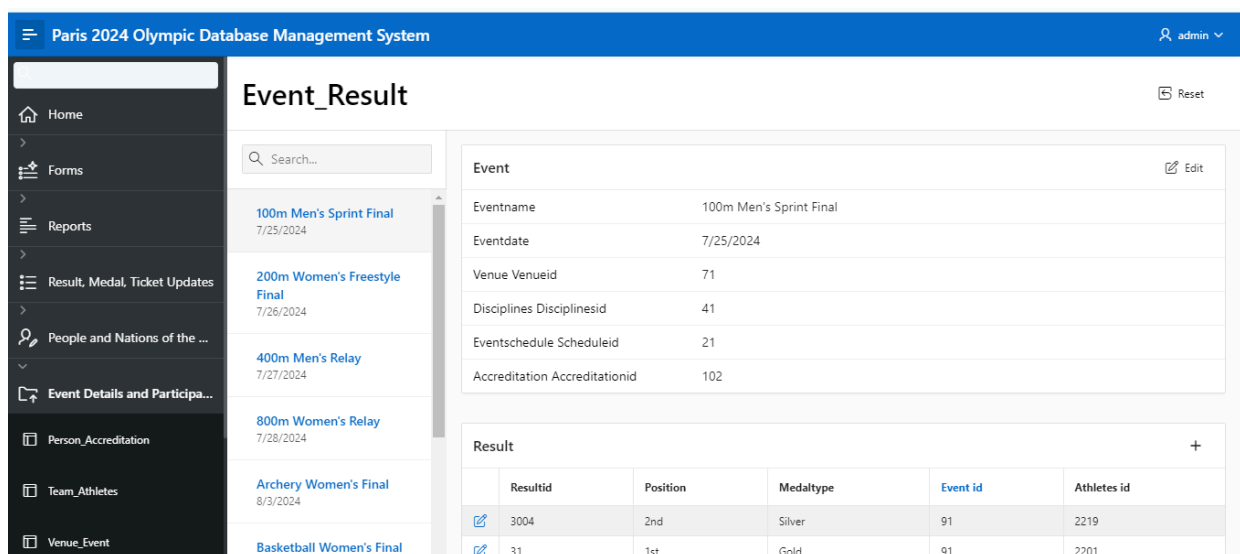
Capacity 35000

Event +

Eventid	Eventname	Eventdate	Venueid
99	Cycling Road Race Men's Final	8/2/2024	78

1 - 1

Figure 5.3: Venue-wise Event Information



Paris 2024 Olympic Database Management System admin

Event_Result Reset

Search...

Event Edit

Eventname 100m Men's Sprint Final

Eventdate 7/25/2024

Venue Venueid 71

Disciplines Disciplinesid 41

Eventschedule Scheduleid 21

Accreditation Accreditationid 102

Result +

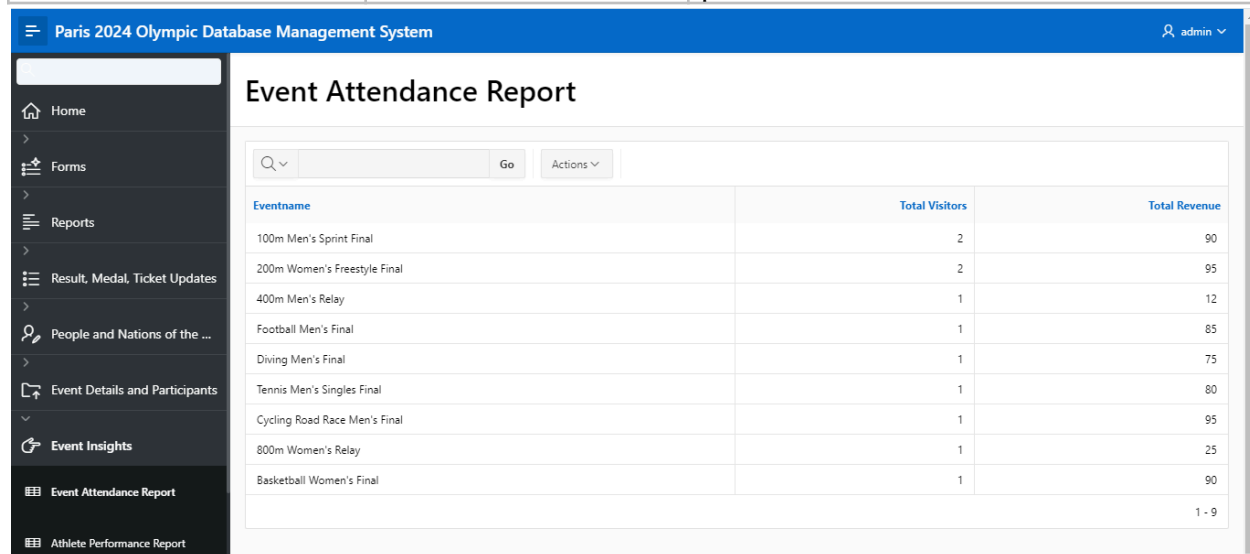
Resultid	Position	Medalttype	Event id	Athletes id
3004	2nd	Silver	91	2219
31	1st	Gold	91	2201

Figure 5.1: Event-wise Result Information

6. Reports based on Multi-Table and Aggregate Queries

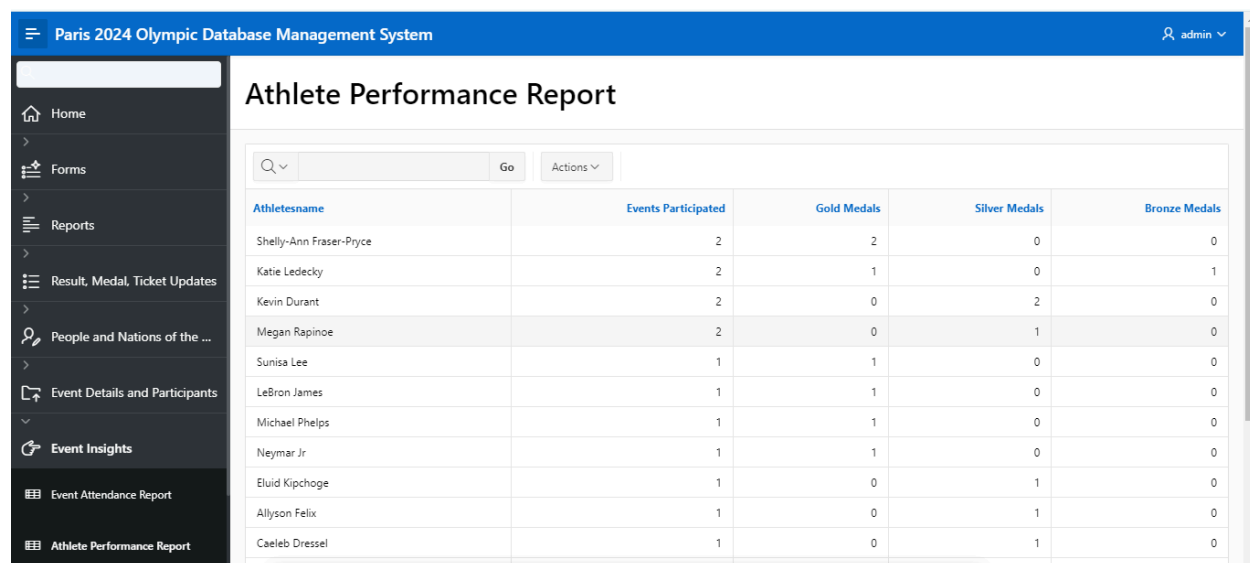
Page Number and Name	Query Type	Report description
Event attendance report Page No -22	Multi-table and Aggregate both	This report provides insights into event attendance and revenue by counting tickets sold and summing ticket prices for each event. It ranks events by total visitors, helping to identify the most attended and profitable events.

Athletes performance report Page No- 25	Multi-table and Aggregate both	This report summarizes the performance of athletes by showing the number of events they participated in and the medals won (gold, silver, bronze). It ranks athletes based on their participation and medal count, helping to identify top performers.
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Eventname	Total Visitors	Total Revenue
100m Men's Sprint Final	2	90
200m Women's Freestyle Final	2	95
400m Men's Relay	1	12
Football Men's Final	1	85
Diving Men's Final	1	75
Tennis Men's Singles Final	1	80
Cycling Road Race Men's Final	1	95
800m Women's Relay	1	25
Basketball Women's Final	1	90
		1 - 9

Figure 6.1 : Event Attendance report using Query (Multitable and Aggregate)



Athletesname	Events Participated	Gold Medals	Silver Medals	Bronze Medals
Shelly-Ann Fraser-Pryce	2	2	0	0
Katie Ledecky	2	1	0	1
Kevin Durant	2	0	2	0
Megan Rapinoe	2	0	1	0
Sunisa Lee	1	1	0	0
LeBron James	1	1	0	0
Michael Phelps	1	1	0	0
Neymar Jr	1	1	0	0
Eluid Kipchoge	1	0	1	0
Allyson Felix	1	0	1	0
Caeleb Dressel	1	0	1	0

Figure 6.2 : Athletes performance report using Query (Multitable and Aggregate)

7. Parameterized Reports

Page Number and Name	Given Input	Report description
----------------------	-------------	--------------------

P.Athletes Performance Report (Page 5)	AthleteID	This parameterized report shows the performance and information of the given athlete.
P.Person-Role Relationship (page 11)	PersonID	This parameterized report shows the roles of the given person.
P.Event and Results Summary (page 8)	EventID	This parameterized report shows the detailed information (including result) about the given event.

Paris 2024 Olympic Database Management Systemadmin

Home

Forms

Reports

Result, Medal, Ticket Updates

People and Nations of the ...

Event Details and Participants

P. Athletes Performance Report

Input

Athlete Id

2203

Submit

Q

Go

Actions

Athletesid	Athletesname	Countryname	Eventname	Medaltype	Position
2203	Simone Biles	United States	Archery Women's Final	Bronze	3rd

figure:7.1

Paris 2024 Olympic Database Management Systemadmin

Home

Forms

Reports

Result, Medal, Ticket Updates

People and Nations of the ...

Event Details and Participants

P. Person-Role Relationship

Input

Person Id

202

Submit

Q

Go

Actions

Personname	Role
Usain Bolt	Athlete

figure:7.2

Paris 2024 Olympic Database Management System

admin

Result, Medal, Ticket Updates

People and Nations of the ...

Event Details and Participants

Event Insights

Dynamic Insights

P. Athletes Performance Report

P. Person-Role Relationship

P. Event and Results Summary

Event Id

96

Submit

Q

Go

Actions

Event Id	Event Name	Event Date	Venue Name	Heat Time	Final Time	Athlete Id	Medal Type	Position	Country Name
96	Tennis Men's Singles Final	7/30/2024	EiffelTower stadium	7/31/2024	7/31/2024	2210	Bronze	3rd	Japan
96	Tennis Men's Singles Final	7/30/2024	EiffelTower stadium	7/31/2024	7/31/2024	2221	Gold	1st	United States

figure:7.3

8. Charts and Other Pages

Page Number and Name	Chart description
athletes by Country Page No- 66	This chart highlights the distribution of athletes from different countries by showing the number of athletes representing each nation.
Events per Disciplines Page No- 67	This chart presents the distribution of events across different disciplines in the Olympics. It shows the number of events associated with each discipline.
Accreditations by AccessZone Page No- 70	This chart displays the count of accreditations granted for each access zone in the Olympic Games.
Volunteers by event Page No- 71	This chart shows the distribution of volunteers assigned to different events at the Olympic Games. It counts the number of volunteers assigned to each event and presents it in an organized way.
Medals distribution by country Page No- 63	This chart shows the total number of gold, silver, and bronze medals won by each country at the Olympic Games.

Medals by Athletes Page No- 68	This chart provides an overview of the total number of medals won by individual athletes. It groups the results by athlete name and counts the total medals each athlete has won, offering a comparative analysis of medal performance.
Countries with the most medals Page No- 72	This chart displays the total number of medals (gold, silver, and bronze) earned by each country, by summing the respective medal counts from the Medal Table.

Athletes by Country

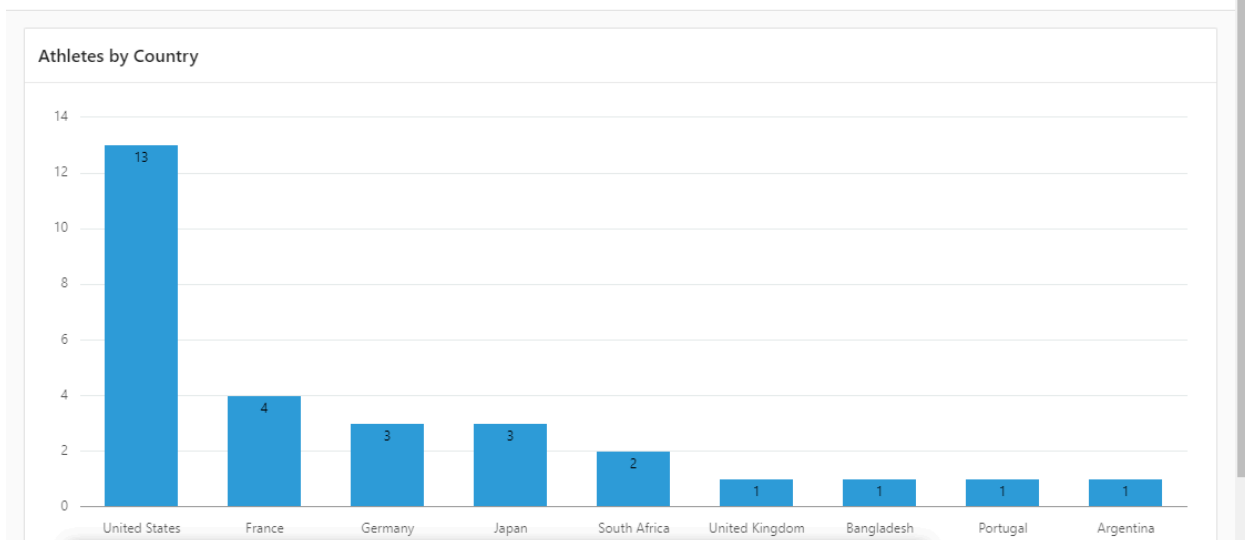


Figure 8.1: Athletes by Country

Events per Discipline (Pie Chart)

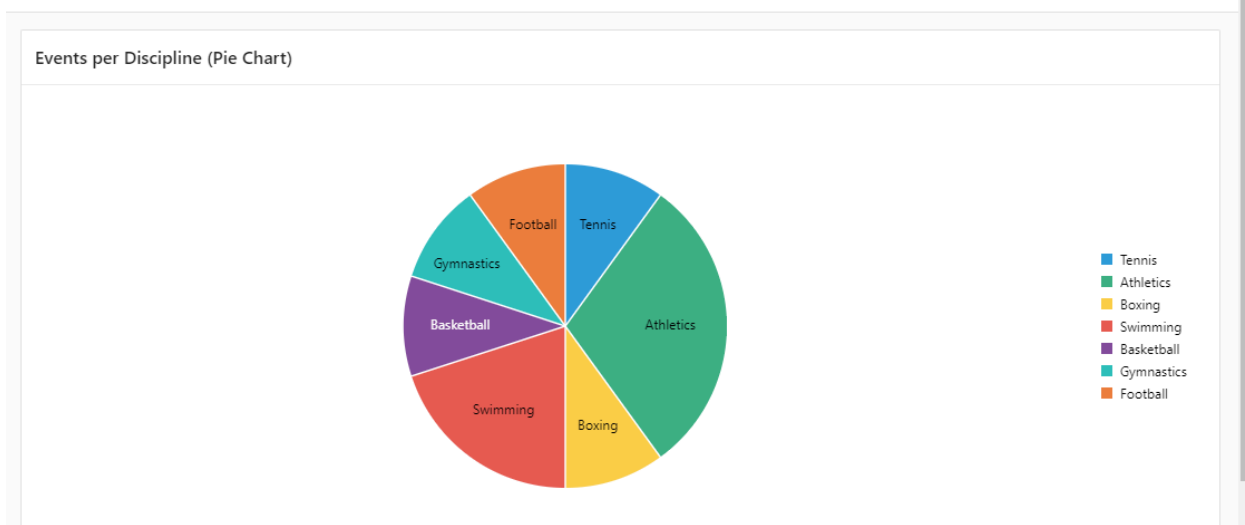


Figure 8.2: Events per discipline

Accreditations by Access Zone (Donut Chart)

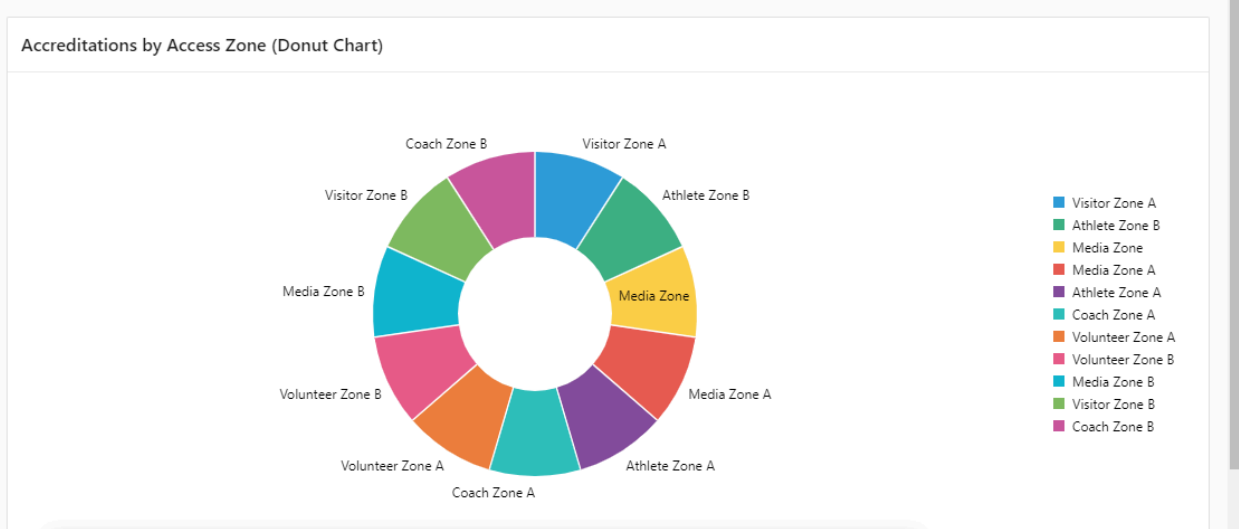


Figure 8.3: Accreditation By AccessZone

Volunteers by Event (Bar Chart)

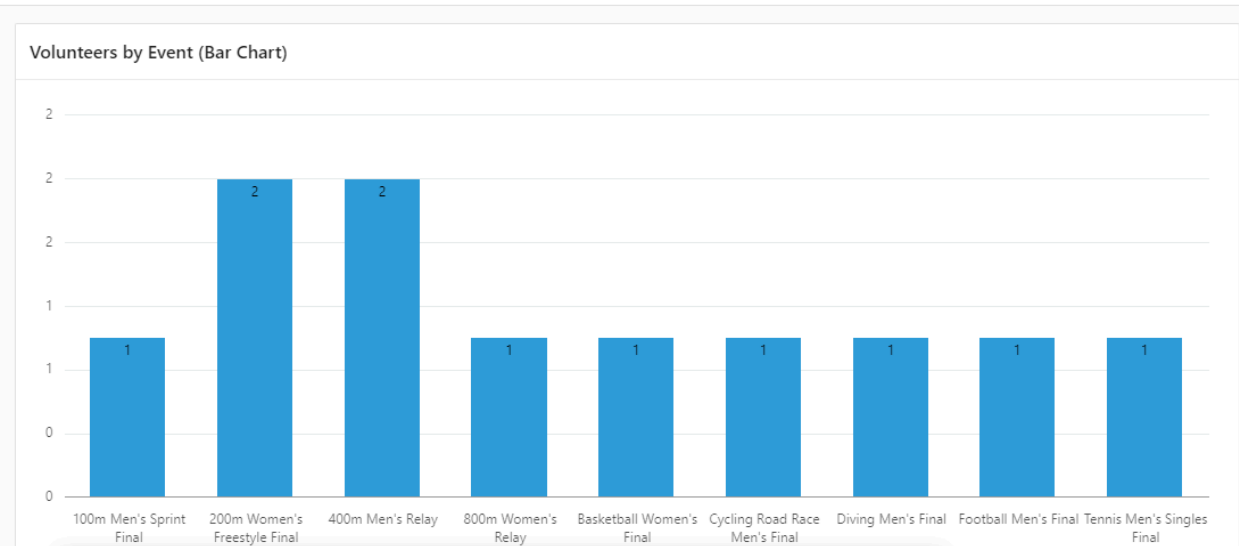


Figure 8.4: Volunteer by event

Medals Distribution by Country

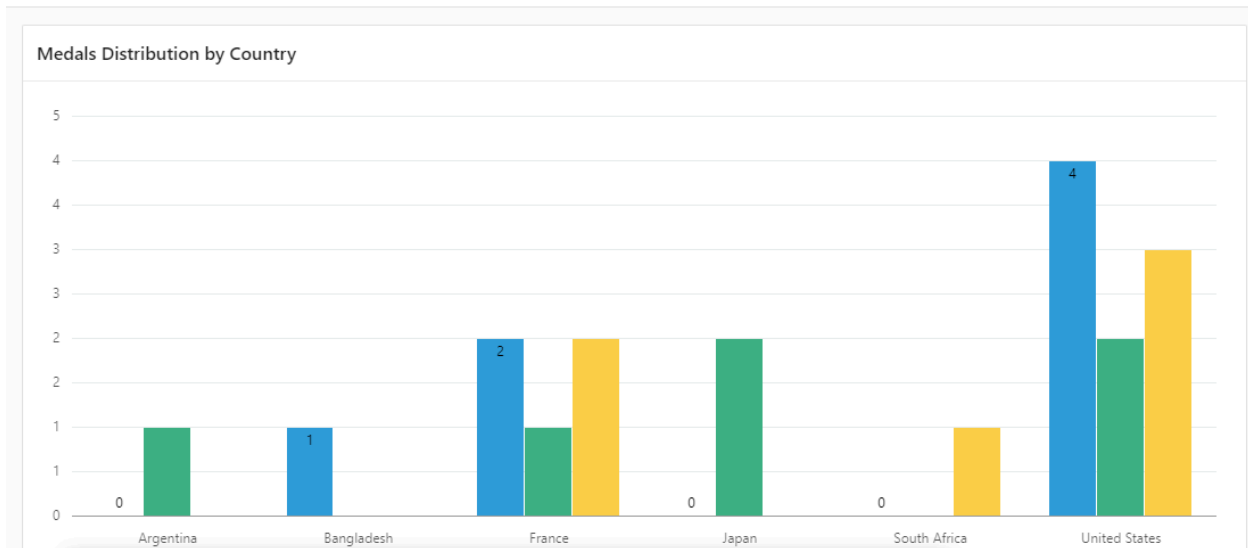


Figure 8.5: Medal Distribution by Country

Medals by Athlete

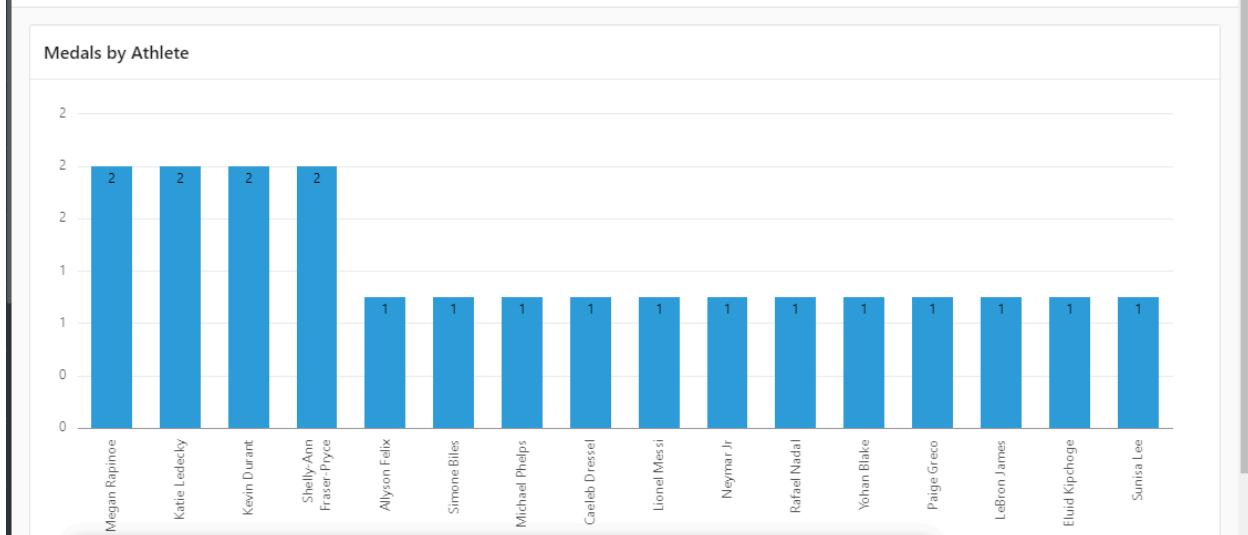


Figure 8.6: Medal Athletes

Countries with the Most Medals

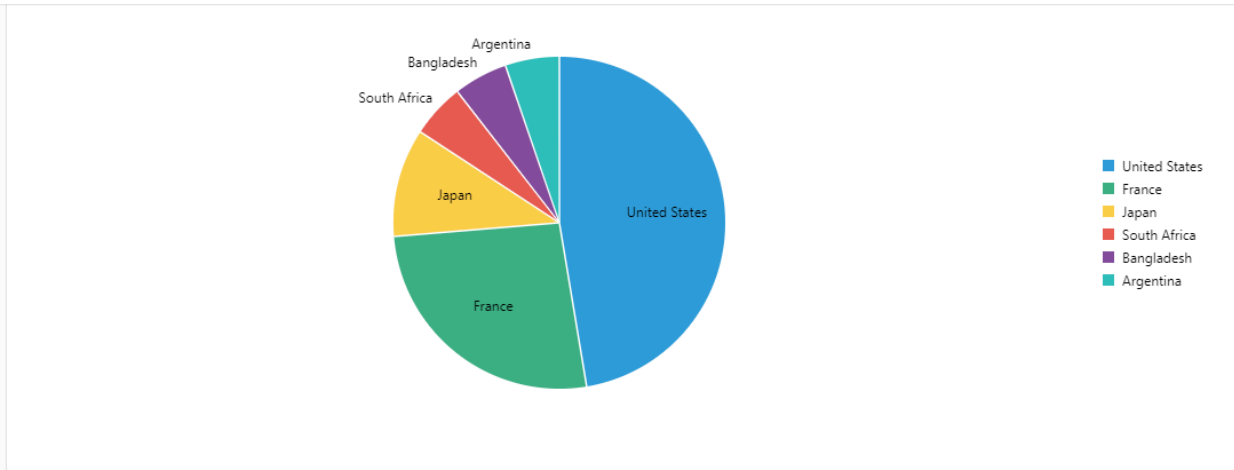


Figure 8.7: Countries with the most medals

9. Authorization and User Role Assignment

User Role Assignment

User name	Password	Role
ADMIN	CSE302	Administrator
MANAGER	CSE302	Contributor
OPERATOR	CSE302	Reader

Page-wise Authorization Information

Page number and name	Authorization Level
Home	Reader
Page - 1	
Forms	Contributor
Reports	Reader
Master Detail(Event details and participants) Page No- 43, 45, 47	Reader
Reports based on Multi Table and aggregate query (Event Insights) Page No- 21, 25	Reader
Parameterized Reports(Dynamic Insights) Page No- 5,11,8	Reader
Olympic Data analysis(Charts) Page No- 66, 67,69, 70, 63, 68,72	Reader

Administration Page No-10000	Administrator

Use more rows if necessary.

10. Concluding Remarks

Working on this project has been a profoundly enriching experience. From the initial stages of planning to the final implementation, We faced various challenges that pushed us to grow both technically and personally. The process of designing the database and creating reports tested my problem-solving skills and deepened our understanding of database management and data analysis.