**INT 217 Introduction to Data Management**

**An Excel Dashboard – Olympics Statistics**

Submitted By

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**Logo

Description automatically generated   
   
 LOVELY PROFESSIONAL UNIVERSITY  
 PHAGWARA, PUNJAB**

**Certificate**This is to certify that **Qazi Maaz Arshad** bearing Registration no. **11906424** has successfully completed **INT 217** (Introduction to Data Management) project titled, **“An Excel Dashboard – Olympics Statistics”** under my guidance and supervision. To the best of my knowledge, the present work is the result of his original development, effort, and study.

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**Student Declaration**

I, **Qazi Maaz Arshad**, **11906424** a student of **B.Tech Computer Science and Engineering** under CSE/IT Discipline at, **Lovely Professional University, Punjab**, hereby declare that all the information furnished in this project report is based on my own intensive work and is genuine.

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**Abstract**Excel is a software program created by Microsoft that uses spreadsheets to organize numbers and data with formulas and functions. Excel analysis is ubiquitous around the world and used by businesses of all sizes to perform data analysis. Excel features calculation, graphing tools, pivot tables, and a macro programming language called Visual Basic for Applications, and several other features which make Excel a perfect choice to manage and analyze data. My project is an Excel Dashboard. The Excel Dashboard is used to display overviews of large data tracks. Excel Dashboards use dashboard elements like tables, charts, and gauges to show the overviews. The dashboards ease the decision-making process by showing the vital parts of the data in the same window. In this report, I have shared a project where I have done data analysis of an Olympics data set. This report also presents my learning during my course classes.

**Chapter 1 - Introduction**

I have created an **Excel dashboard** of an **Olympics data set**. This dashboard explains and highlights important facts, records, and trends in the Olympics history.

The data set used contains information regarding all the previous Winter and Summer Olympics. It includes information regarding all the participants involved in the games, the participating nations, the games played, when the Olympics were held, who was the host country, which participants won medals, what medals they won (gold, silver, bronze), what was the age, height, and weight of the players.  
The data set contains details of Approx. **271117** players.

I have **scrubbed** and **organized** the entire data set and performed the analysis of a clean data set. I have **deduced** and **calculated** important results from the data set with the help of various Excel features like **pivot tables** and **functions** and represented them in the form of a **dynamic dashboard** using excel visualizing tools and various charts.

**Chapter 2 - Objectives**

This project on Olympics statistics provides the records, facts, and trends of all the Summer and Winter Olympics since 1896 with respect to participants, nations, and games in various aspects.

However, here are the few main objectives that are discussed in the dashboard.

* Showing the total number of participants and winners, with respect to their game, nationality, age, year of participation, gender, and many more.
* Showing the performance of countries overall, or in a particular year, game, gender-based contributions, etc.
* Showing the performance of players overall, or in a particular year, game, gender-based contributions, or of a particular country. etc.
* Showing the most popular sports in the Olympics overall, or among males/females, participation index of a particular nation in a particular sport, etc.
* Highlighting the relationship between medal victory and age of players overall, in a particular season, in a specific sport or nation, etc.
* Highlighting the relationship between medal victory and height and weight of players overall, in a particular season, in a specific sport or nation, etc.
* Showing the male vs female medal victory ratio in the Olympics, overall, in a particular season, in a specific sport or nation, etc.
* Displaying trends in countries performance over the years with respect to a particular sport, gender specific, only in a particular season, etc.
* Highlighting the difference in countries performance in Summer and Winter Olympics.
* Showing participation index with respect to the host country.

**Chapter 3 - Source of Dataset**

The dataset is taken from **Kaggle**. Kaggle is a community of data scientists and data enthusiasts. This platform allows users to find and publish data sets.  
I have selected an Olympics data set which contains important details of 120 years of Olympics History.  
Here are the details of my chosen data set.

**Name -** 120 years of Olympic history: athletes and results  
**Link -** <https://www.kaggle.com/heesoo37/120-years-of-olympic-history-athletes-and-results>  
**Author –** rgriffin  
**Format –** CSV  
**No. of Data Sets** – 2  
**Size –** 42 MB

**No. of Rows – (1)** 271116 + **(2)** 230  
**No. of Columns – (1)** 15 + **(2)** 3

**Data Set 1: Data Fields**

* **ID – (***Integer***) –** Each player has a unique id
* **Name –** (*String*) – Name of player
* **Sex –** (*Char*) – **M** represents males, **F** represents Females
* **Age –** (*Integer*) – Shows age of players in **years**
* **Height –** (*Integer*) – Height of players in **Centimeter (cm)**
* **Weight –** (*Integer*) – Weight of players in **Kilograms (Kg)**
* **Team –** (*String*) – Name of sports team of players
* **NOC –** (*String*) – Initials of countries
* **Games –** (String) – Represents year and season ex. 2020 Summer
* **Year –** (*Date*) – Year of player participation
* **Season –** (*String*) – Identifies the season **Summer** or **Winter**
* **City –** (*String*) – Gives the name of the host country
* **Sport –** (*String*) – Name of the sport. ex. **Badminton**
* **Event** – (*String*) – Sub-event of the sport. ex. **Men’s Single Badminton**
* **Medal –** (*String*) – Shows medal won **Gold**, **Silver**, **Bronze**, or **NA** if not won

**Data Set 2: Data Fields**

* **NOC –** (*String*) – Initials of countries
* **Region –** (*String*) – Gives the name of the country/place
* **Notes –** (*String*) – Details about the region

**Table 3.1 – Raw Data Set**

**Data Set 1** **Data Set 2**

Table

Description automatically generatedTable

Description automatically generated

**Chapter 4 - ETL Process**

In computing, extract, transform, load (ETL) is a process to prepare data for analysis, especially in data warehousing. Data extraction involves extracting data from homogeneous or heterogeneous sources, while data transformation processes data by transforming them into a proper storage format/structure for the purposes of querying and analysis; finally, data loading describes the insertion of data into the final target location such as an operational data store, a data mart, or a data warehouse. A properly designed ETL system extracts data from the source systems, enforces data quality and consistency standards, conforms data so that separate sources can be used together, and finally delivers data in a presentation-ready format so that application developers can build applications and end users can make decisions.  
I have also performed many steps in the ETL process to prepare my data for analysis:

**Extraction**

The raw data has been taken from Kaggle, before processing the data it looked like this

Graphical user interface, text, application

Description automatically generatedA picture containing graphical user interface

Description automatically generated **Table 4.1 – Raw Data from Kaggle**The data can be imported into excel directly from the web using get data features, but I have first downloaded the CSV files manually from excel then imported it into excel using the get data feature.

**Step 1** – Open a new excel workbook.

**Step 2** – Use the **Get Data** feature.

**Table 4.2 – Importing CSV Data Sets**

Graphical user interface, application, table, Excel

Description automatically generated

**Step 3** – Load to **Connection**

**Graphical user interface, application, table, Excel

Description automatically generatedGraphical user interface, application, table, Excel

Description automatically generated** **Table 4.3 – Loading to Connection**

**Step 4** – Repeat the process for all the data sets. In my case there were only two data sets.  
Now that we have extracted the data from the source and have imported it, now is the time to transform the data.

**Transform**

If we want to transform the data before loading it can be done. Although transformation can be done even after loading the data, but it is better to first process the data before loading.

**Step 1** – Use Get Data feature. But instead of loading to connection, click on **transform**.

**Graphical user interface, application

Description automatically generated** **Table 4.4 - Transforming Data**  
  
  
  
  
  
  
  
  
  
  
**Step 2** – Remove the unwanted rows or column or modify the data in   
**Power Query Editor**.

**Graphical user interface, application, table, Excel

Description automatically generated** **Table 4.5 – Deleting columns in Power Query Editor**

Now I have removed the unwanted column in the data set.

Graphical user interface, application, table

Description automatically generated **Table 4.6 – Table After Transforming in Power Query Editor**

Now after we had imported and transformed all the data sets it will look like this

Graphical user interface, application, table, Excel

Description automatically generated **Table 4.7 – All the Queries and Connections**

**Step 3 – Merging** both data sets. In data set 1 I have the name of country as NOC (only initials of the country) which makes it difficult to identify the country, in the other data set I have the full names of countries, so I want to **merge the regions column** (country name) of data set 2 to data set 1, **comparing the NOC column**.

Graphical user interface, application, table, Excel

Description automatically generatedTo merge queries, use the **Get Data** feature -> Use **Combine Queries**   
-> **Merge** **Table 4.8 – Combining Queries**

**Step 4 –** Now **s**elect the base table, merging table, comparing column and other necessary inputs.  
 **Table 4.9 – Merging Tables**

Graphical user interface, application, table, Excel

Description automatically generated

**Step 5** – Now select the columns we want to see in the merge table.

**Graphical user interface, application, table, Excel

Description automatically generated** **Table 4.10 – Selecting Columns to be Included in Merged Table**

Now that we have the desired data, we can finally load it into excel workbook.

**Load**

When we have the desired data, we can load it into the excel.

Graphical user interface, application, Word

Description automatically generated**Table 4.11 – Loading Data in Excel**

Table

Description automatically generatedThis is the data we get after extracting, transforming, and merging the two data sets  
**Table 4.12 – Data Set After Transforming and Loading**

But the resultant still has some inconsistencies.   
Like NA values in few cells, and it still has few columns which I don’t want to use, so it will be better to modify and eliminate the inconsistent data.

**Transform 2.0**

**Step 1 –** Deleting the unwanted columns.

**Table 4.13 – Deleting Columns**

Graphical user interface, application, table, Excel

Description automatically generated

**Graphical user interface, application, table, Excel

Description automatically generatedStep 2 –** Renaming the columns**Table 4.14 – Renaming Columns**

**Step 3** – Deleting the rows with null and unwanted values.

Graphical user interface, application, table, Excel

Description automatically generated3.1 -> Apply filter  
**Table 4.15 – Applying Filter**

3.2 -> Select the column which contains values that need to be deleted. Then unselect the value to be deleted.

**Table 4.16 – Filtering Out Unwanted Values**

Graphical user interface, application, table, Excel

Description automatically generated

3.3 -> Repeat the process for all the columns in which we want to delete the unwanted values.

3.4 -> When done, select the entire sheet (ctrl + A), copy entire sheet, create a new sheet, and paste.

**Table 4.17 – Filtering Out Unwanted Values**

Graphical user interface, application, table, Excel

Description automatically generatedGraphical user interface, application, table, Excel

Description automatically generated

Now we have deleted all the unnecessary things from our data.

**Step 4** – It will be better to arrange data in cells properly and apply style.

Graphical user interface, application, table, Excel

Description automatically generatedGraphical user interface, application, table, Excel

Description automatically generated**Table 4.18 – Aligning Data in Cells**   
  
  
  
  
  
  
  
  
  
  
 **Table 4.19 – Applying Style to Table**

Table

Description automatically generated  **Final Clean Data Set** **Table 4.20 – Clean Data Set** **Chapter 5 - Data Analysis  
  
 Objective 1 – Displaying Number of Participants  
  
Description –** The objective is to display the count of number of participants and winners, both male and female separately (of different games, years, age, and many other).

**Requirements –**

* 4 Pivot Tables
* Divide (/) and Subtract (-) Formula, Get Pivot Data Formula
* Doughnut Charts (Customized Pie Chart + Text Box)
* Many Slicers

**Specifications -**

* Graphical user interface, application

  Description automatically generatedA picture containing timeline

  Description automatically generatedPivot Table 1 – To count total males, females, and participants

Shape

Description automatically generated  
**Table 5.1 – Objective 1 - Pivot Table 1**

* A picture containing table

  Description automatically generatedShape

  Description automatically generated with medium confidenceGraphical user interface, application

  Description automatically generatedPivot Table 2 – To count total medals won  
    
   **Table 5.2 – Objective 1 - Pivot Table 2**
* A picture containing text

  Description automatically generatedTable

  Description automatically generatedGraphical user interface, application

  Description automatically generatedPivot Table 3 – To count medals won by males**Table 5.3 – Objective 1 - Pivot Table 3**
* Text

  Description automatically generatedTable

  Description automatically generatedGraphical user interface, application

  Description automatically generatedPivot Table 4 – To count medals won by females**Table 5.4 – Objective 1 - Pivot Table 4**
* Percentage Calculation – For Doughnut Chart

**Table 5.5 – Objective 1 – Calculation for Doughnut Chart**

Table

Description automatically generated

**Result and Visualization –**

A picture containing diagram

Description automatically generated**Table 5.6 – Objective 1 Result**

**Objective 2 – Showing Best Performing Countries**

**Description –** The objective is to display the best performing countries. Also, based on different sports, year, gender, and many other fields.

**Requirements –**

* Pivot Table
* Pivot Chart
* Many Slicers

**Specifications –** To display a countries performance, In the pivot table fields add Country in the rows, and medals as column, and count of medal in the values column.  
**Uncheck NA** option in the medals column and apply **Top 10 value filter** to display only the top 10 countries.  
Also, apply **largest to smallest filter in gold medal column**, because medal determines the ranking.  
After all the steps, insert a column chart in the pivot table.

Graphical user interface, application, table, Excel

Description automatically generated**Table 5.7 – Objective 2 Pivot Table and Settings**

**Result and Visualization –**

**Table 5.8 – Objective 2 Result**

Chart, bar chart

Description automatically generated  
  
  
  
  
  
  
  
  
  
  
  
 **Objective 3 – Displaying Top Olympic Medalists  
  
Description –** The objective is to display the best performing players. Also, based on different sports, year, gender, and many other fields.

**Requirements –**

* Pivot Table
* Pivot Chart
* Many Slicers

**Specifications –** To display a players performance, In the pivot table fields add Name in the rows, and medals as column, and Count of Medal in the values column.  
**Uncheck NA** option in the medals column and apply **Top 10 value filter** to display only the top 10 players.  
Also, apply **largest to smallest filter in gold medal column**, because medal determines the ranking.  
After all the steps, insert a column chart in the pivot table.  
Then apply the required slicers.

**Table 5.9 – Objective 3 Pivot Table and Settings**

A screenshot of a computer

Description automatically generated  
  
  
  
  
  
  
  
  
  
  
**Result and Visualization –**

**Table 5.10 – Objective 3 Result**

Chart, bar chart

Description automatically generated

**Objective 4 – Male vs Female Performance Ratio**

**Description –** The objective is to find the Male vs Female medal victory ratio. Also, based on sports, nation, year, season, and a lot more.

**Requirements –**

* Pivot Table
* Pivot Chart
* Many Slicers

**Specifications –** To display Male vs Female ratio, In the pivot table fields add Sex then Medal in the rows, and count of medal in the values column.  
**Uncheck NA** option in the medals.   
After all the steps, insert a pie chart in the pivot table.  
Then apply the required slicers.

**Table 5.11 – Objective 4 Pivot Table and Settings**

Graphical user interface, application, table, Excel

Description automatically generated

**Result and Visualization –**

**Table 5.12 – Objective 4 Result**Chart, pie chart

Description automatically generated

**Objective 5 – Show Most Popular Sports  
  
Description –** The objective is to display the sports which record highest participation. Also, with respect to different country, year, gender, and many other fields.

**Requirements –**

* Pivot Table
* Pivot Chart
* Many Slicers

**Specifications –** To get sports with highest participation index, In the pivot table fields add Sport in the rows, and Sex as column, and Count of Name in the values column.  
Apply **Top 10 value filter** and limit to 12 to display 12 most popular sports.  
After all the steps, insert a Doughnut chart in the pivot table.  
Then apply the required slicers.

Graphical user interface, chart, application

Description automatically generated**Table 5.13 – Objective 5 Pivot Table and Settings**

**Result and Visualization –**

Chart, sunburst chart

Description automatically generated**Table 5.14 – Objective 5 Result**

**Objective 6 – Relation Between Medal Victory and Age  
  
Description –** The objective is to display the relationship and trend between medal victory and age. Also, for different sports, year, gender, and many other fields.

**Requirements –**

* Pivot Table
* Pivot Chart
* Many Slicers

**Specifications –** To find the relationship between medal victory and age, In the pivot table fields add Age in the rows, and Medal in column, and Count of Medal in the values column.  
**Uncheck NA** option in the medals column and apply **Top 20 value filter** to display only the stats of only top 20 ages.  
After all the steps, insert a line chart in the pivot table.  
Then apply the required slicers.

Graphical user interface, chart, application

Description automatically generated**Table 5.15 – Objective 6 Pivot Table and Settings**

**Result and Visualization –**

Chart, line chart

Description automatically generated**Table 5.16 – Objective 6 Result**

**Objective 7 – Trends in Countries Performance in Years  
  
Description –** To display countries performance over the years. Also, in different sports, based on gender, and many other fields.

**Requirements –**

* Pivot Table
* Pivot Chart
* Many Slicers

**Specifications –** To display a countries performance over the years, In the pivot table fields add Country in the rows then add Year, and Count of Medal in the values column.  
**Uncheck NA** option in the medals column and apply **Top 1 value filter** to display only 1 country at a time.  
Also, apply **largest to smallest filter in Age column**, so trend can be easily understood.  
After all the steps, insert a line chart in the pivot table.  
Then apply the required slicers.

Graphical user interface, text, application, Word

Description automatically generated**Table 5.17 – Objective 7 Pivot Table and Settings**

**Result and Visualization –**

Chart, line chart

Description automatically generated**Table 5.18 – Objective 7 Result**

**Objective 8 – Difference in Country Performance (Summer vs Winter) Olympics  
  
Description –** To show the difference in medal victory of a nation in Summer and Winter Olympics. Also, in different sports, gender-specific, and many other fields.

**Requirements –**

* Pivot Table
* Pivot Chart
* Many Slicers

**Specifications –** To show the difference in Summer and Winter Olympics performance of a country, In the pivot table fields add Country in the rows then add Season again in the rows, add Medal in columns, and Count of Medal in the values column.  
**Uncheck NA** option in the medals column and apply **Top 1 value filter** in pivot table to display only 1 country at a time.  
After all the steps, insert a bar chart in the pivot table.  
Then apply the required slicers.

**Table 5.19 – Objective 8 Pivot Table and Settings**

Graphical user interface, application, table, Excel

Description automatically generated

**Result and Visualization –**

**Table 5.20 – Objective 8 Result**

Chart, box and whisker chart

Description automatically generated **Objective 9 – Relationship: Medal Victory vs Weight  
  
Description –** The objective is to establish a relationship between medal victory and weight. Also, for different sports, nation, gender-specific, and many more.

**Requirements –**

* Pivot Table
* Pivot Chart
* Many Slicers

**Specifications –** To establish a relationship between medal victory and weight, In the pivot table fields add Weight in the rows, add Medal in columns, and Count of Medal in the values column.  
**Uncheck NA** option in the medals column and apply **Top 10 value filter** in pivot table to display 10 weights only.  
After all the steps, insert an area chart in the pivot table.  
Then apply the required slicers.

**Table 5.21 – Objective 9 Pivot Table and Settings**

Graphical user interface, chart, application, table, Excel

Description automatically generated **Result and Visualization –**

Chart, line chart

Description automatically generated**Table 5.22 – Objective 9 Result**

**Objective 10 – Relationship: Medal Victory vs Height  
  
Description –** The objective is to establish a relationship between medal victory and height. Also, for different sports, nation, gender-specific, and many more.

**Requirements –**

* Pivot Table
* Pivot Chart
* Many Slicers

**Specifications –** To establish a relationship between medal victory and height, In the pivot table fields add Height in the rows, add Medal in columns, and Count of Medal in the values column.  
**Uncheck NA** option in the medals column and apply **Top 10 value filter** in pivot table to display 10 heights only.  
After all the steps, insert an area chart in the pivot table.  
Then apply the required slicers.

**Table 5.23 – Objective 10 Pivot Table and Settings**

Graphical user interface, chart, application, Excel

Description automatically generated

**Result and Visualization –**

**Table 5.24 – Objective 10 Result**

Chart, line chart

Description automatically generated

**Objective 11 – Show Player Participation Index of Host Country  
  
Description –** The objective is to show the male/female players strength in the host country. Also, for different sports, nation, and many more.

**Requirements –**

* Pivot Table
* Pivot Chart
* Many Slicers

**Specifications –** To show the player participation index of the host countries, In the pivot table fields add City in the rows, add Sex in columns, and Count of Name in the values column.  
Apply **largest to smallest filter in cities** column in pivot table.  
After all the steps, insert a column chart in the pivot table.  
Then apply the required slicers.

Graphical user interface, application, table, Excel

Description automatically generated**Table 5.25 – Objective 11 Pivot Table and Settings  
  
  
  
  
  
  
  
Result and Visualization –**

Chart, bar chart

Description automatically generated**Table 5.26 – Objective 11 Result**

**Objective 12 – Show Most Dominant Countries in Olympics using World Map  
  
Description –** The objective is show countries using world map which have won most medals in the Olympics.

**Requirements –**

* Pivot Table
* Normal Table
* Map Chart

**Specifications –** Map charts don’t work with pivot tables, so we need to create a normal table, but first fetch the data from the data set using pivot table. In the pivot table fields add Country in the rows, add Medal in columns, and Count of Medal in the values column.  
**Uncheck NA** option in the medal’s column.  
Then **copy the Country and Grand Total** column from the pivot table to a **new sheet**.  
Once done, then insert the Map chart in the table.

Graphical user interface, application, table, Excel

Description automatically generated**Table 5.27 – Objective 12 Pivot Table and Settings**

**Result and Visualization –**

Map

Description automatically generated**Table 5.28 – Objective 12 Result**

**Objective 13 – Show Top 10 Olympics Players Overall  
  
Description –** The objective is show top 10 Olympic medalists by standard ranking definition of Olympics.

**Requirements –**

* Pivot Table
* Normal Table
* Sort Filter
* Bar Chart

**Specifications –** Multiple custom sorting does not work with pivot tables, so we need to create a normal table, but first fetch the data from the data set using pivot table. In the pivot table fields add Name in the rows, add Medal in columns, and Count of Medal in the values column.  
**Uncheck NA** option in the medal’s column.  
Then **copy the entire Pivot table excluding the first row (i.e column header)** to a **new sheet**.

**Table 5.29 – Objective 13 Pivot Table and Settings**

Graphical user interface, application, table, Excel

Description automatically generated

Once done, then apply custom sort in the new table.   
First sort by **Gold – largest to smallest**, then by **Silver - largest to smallest**, then by **Bronze - largest to smallest**.  
At last, just select **top 10** manually and insert a column chart.

A screenshot of a computer

Description automatically generated**Table 5.30 – Objective 13 Custom Sort**

**Result and Visualization –**

Chart, bar chart

Description automatically generated**Table 5.31 – Objective 13 Result**

**Objective 14 – Show Top 10 Nations in Olympics Overall  
  
Description –** The objective is show top 10 countries by standard ranking definition of Olympics.

**Requirements –**

* Pivot Table
* Normal Table
* Sort Filter
* Bar Chart

**Specifications –** Multiple custom sorting does not work with pivot tables, so we need to create a normal table, but first fetch the data from the data set using pivot table. In the pivot table fields add Country in the rows, add Medal in columns, and Count of Medal in the values column.  
**Uncheck NA** option in the medal’s column.  
Then **copy the entire Pivot table excluding the first row (i.e column header)** to a **new sheet**.

**Table 5.32 – Objective 14 Pivot Table and Settings**

Graphical user interface, application, table, Excel

Description automatically generated

Once done, then apply custom sort in the new table.   
First sort by **Gold – largest to smallest**, then by **Silver - largest to smallest**, then by **Bronze - largest to smallest**.  
At last, just select **top 10** manually and insert a column chart.

Graphical user interface, application, table, Excel

Description automatically generated**Table 5.33 – Objective 14 Custom Sort**

**Result and Visualization –**

**Table 5.34 – Objective 14 Result**

Chart, bar chart

Description automatically generated

**Chapter 6 – Dashboard**

Graphical user interface

Description automatically generated**Figure 6.1 – The Dashboard**   
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
I have created this dashboard by combining all the results obtained in the data analysis, then connecting the required slicers, adding images, objects, and style to the dashboard.

This dashboard can be used to find various, records, stats, and trends in the Olympics like: *Which is the best performing country in Winter Olympics.  
Who won most bronze medals in hockey.  
Which female wrestler of India has won an Olympic medal.  
What is the male/female participation and victory index of Nigeria.  
How many players have never won a medal.  
Who was the youngest female gold medalist in archery.  
What is the most optimum height and weight that has produced most medalists in swimming.  
How many gold medals USA won in 2016 Summer Olympics.  
Which host city recorded the highest participants in ice skating.*  
etc. and a lot more data can be easily deduced from this dashboard, and not only just number but the result will be graphically represented.

This dashboard comes with some special features as well.

**Special Features**

This dashboard has many special features some are hidden, and some are visible. Important features are:  
**Dark/Light theme switch** – This toggle switch allows user to change the theme color of the dashboard from white to black (light to dark).  
Excel does not provide such features; this switch has been added with a trick. This **toggle switch** is just an **Image**, and this image is **linked to another copy of this dashboard** which has all charts with **dark.**

Graphical user interface, application

Description automatically generatedGraphical user interface, application

Description automatically generated **Figure 6.2 – Dark/Light Toggle Switch**

**Figure 6.3 – Dark/Light Theme**

Graphical user interface

Description automatically generated

![Graphical user interface

Description automatically generated]()

**Hidden Links and Master Sheet –** The dashboard has many hidden links which takes user directly to the source data and source pivot table which helps to understand the architecture of specific parts of the dashboard.

A picture containing timeline

Description automatically generated**Figure 6.4 – Hidden Links**   
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
Also every single sheet also has shortcut links which takes directly to dashboard and **Master Sheet**.

Chart, bar chart

Description automatically generated**Figure 6.5 – Shortcut Links to Dashboard and Master Sheet**

**Master Sheet –** A master sheet is a sheet in the workbook which has links to all the sheets of the workbook. It makes it easier to navigate in the workbook.

A picture containing table

Description automatically generated**Figure 6.6 – The Master Sheet**

**Summary of Report**

In this report I have discussed in detail my project, its working, making, features, and applications. I have explained each step of making an Olympics Statistics Dashboard using from a raw data using Excel.

This report highlights all the processes involved in the making in serial order from ETL processes extracting, transforming, and loading data to using several excel features like pivot table, filtering, sorting, formulas to perform data analysis and deduce important results then representing them graphically using charts.

I have also attached the preview of the dashboard, and all the objectives in this report.

**References**

* 120 years of Olympic history: athletes and results (Data Set) -<https://www.kaggle.com/heesoo37/120-years-of-olympic-history-athletes-and-results>. (Accessed on 20th Nov 2021).
* <https://exceljet.net/excel-pivot-tables>. (Accessed on 23rd Nov 2021).