1. INTRODUCTION:

Olympic games is the biggest event for the players because it is held for every four years, no matter what the result is. Standing in the biggest stage & competing with the greatest rivals make the players feel proud. They close to the higher, stronger and faster & these are the spirit of the Olympics Games. When the audiences sees the players break the record and challenges human beings limitations.

Today, there are summer & winter games up to 1944 both games were held in the same year, but now they are staged two years apart from each other.

1.1 Overview:

The modern Olympic games were reinstated in Athens, Greece in 1896. While retaining the athletic competition of the games, the modern Olympic movement provided organisations, principles and goals. The movement founded the International Olympic committee and this committee actively worked to embody the principles and Ideas. The five interlocking rings are globally recognized as the symbol of the massive sporting competition.

Overview of our Project:

The data used for this analysis is Olympaid Dataset - 120 years of data. The dataset, originally it's made up of two files viz. athletes-events.csv & noc-regions.csv as seen on the site 120 years of Olympic history;

athletes and results. This dataset was chosen because it the records of Olympic medals awards for different categories of sport, the countries that participate in the games, names, age, medals, events, etc. The dataset can also be a improve on their performance in the subsequent Olympic events.

1.2 Purpose:

Important points for the purpose of Olympic Games:

* To cultivate the development of physical & moral qualities through amateur sports.
* To cultivate human beings and contribute to world peace.
* To develop the spirit of patriotism & brotherhood as players.

Data analysis helps an sports utilities evaluate the performance of their athletes and assess the recruitment necessary to improve the team performance.

Visualization of data over various factors will provide us with the statistical view of the various factors which lead to the evolution of the Olympic Games & Improvement in the performance of the various countries / players over time. The goal of a data analytics strategy is to help organizations make better decisions by understanding their data and using it to inform their decision making.

2. Literature Survey:

Performance measure for a country in Olympics can be predicted using their past performance. By predicting their own using maximum value scored by them in previous participate. The chance of wining gold in 2016 has been identified. If a person wins a medal in an Olympics during a year, the chance of winning a medal in upcoming Olympics was predicted.

Data interpret & analysis is one of the primary tasks in the field of big data analyses of players, improvement in the performance of various countries and more. The type of analysis which is quite popular & suitable while analysing the evolution of Olympics is Exploratory Data Analysis.

2.1 Existing Problems:

Some of the existing problems of Olympic Games were: Infrastructure challenges: Hosting a mega event always invole urban renewal & regeneration. Yet developing sporting stadia, accomodation & transportation networks to cope with increased no. of tourists & athletes is anything but straight forward.

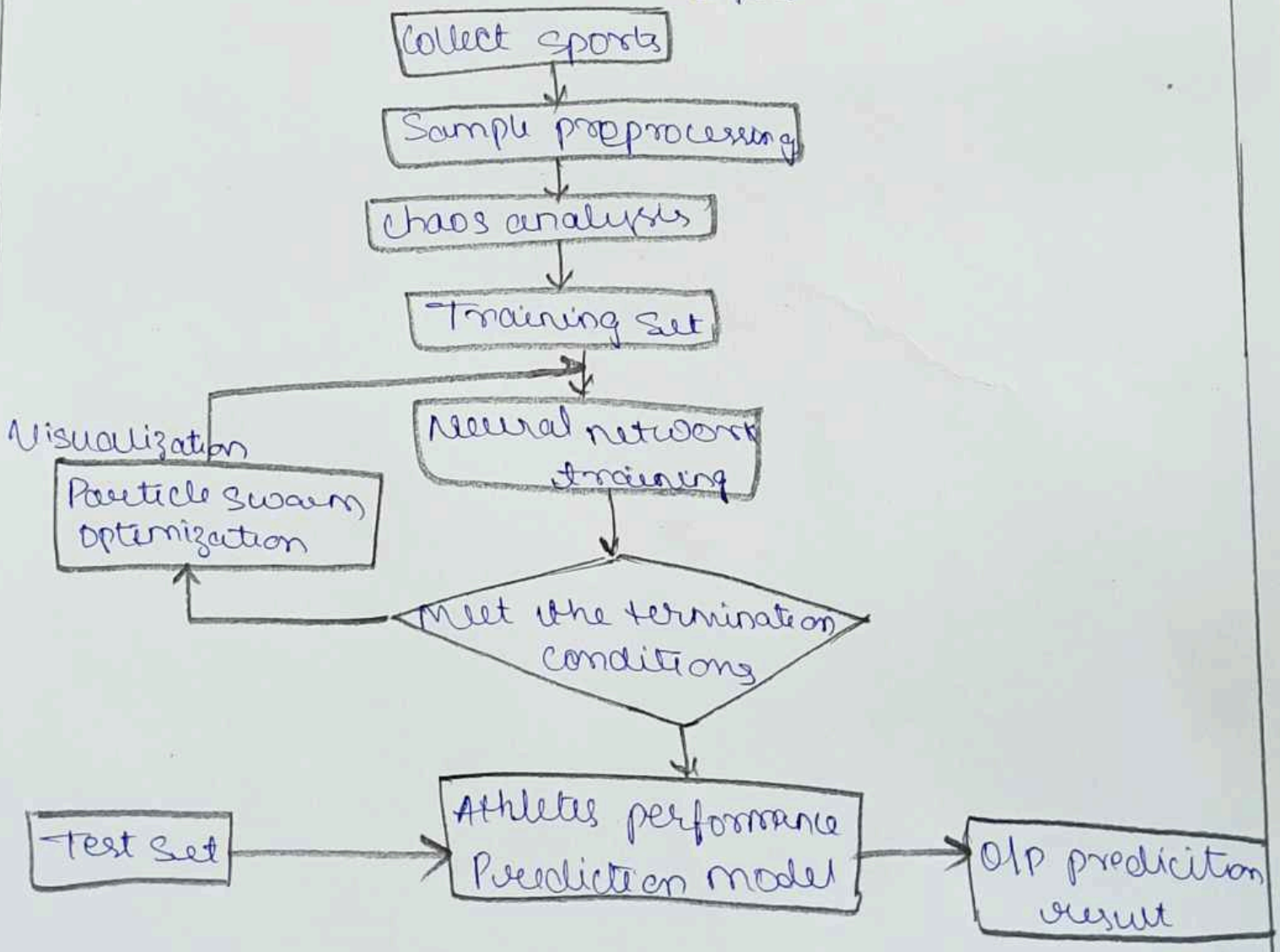
Olympics are becoming less sustainable and the winter games in beginning was no exception. The winter games require snow on the ground for sport such as skipping & snowboarding but the

Three cities Beijing, Yanqing & Zhangjiaka have arid climate. While snow reliability is declining globally because of planetary warming, Bejing is particularly utilited for the winter games because it doesn't have much participation in the first place.

2.2 Proposed Solution:

An approach is reffered as a systamatic path to reach a proposed solution.

Ex: Data sources → collection of Raw Data → Data process → clear dataset → Exploratory Data Analysis → Visualizations → Bar graphs, histograms, plots, Scatter plots, Bubble plots



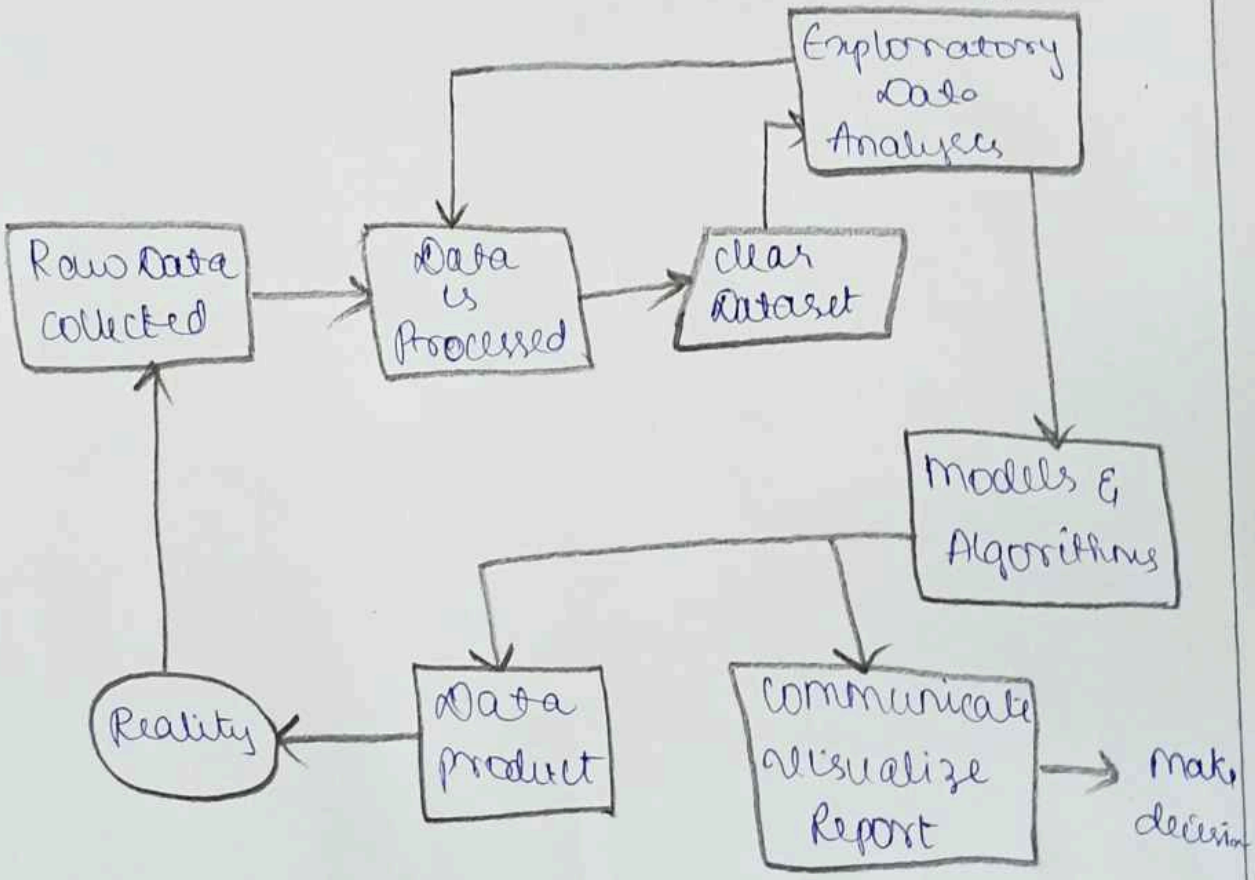
Particle Swarm Optimization:

The analysis is done on data using various techniques like test analysis, diagnostic analysis.

- Histogram
- Bar Graph
- Box plot
- Scatter Plot

3. Theoritical Analysis:

This is an Exploratory Data Analysis in which firstly Raw data is collected, the data is processed then we can create a datamodule & we clean the dataset with unwanted matter & create relationship to the tables.



3.2 Hardware / Software designing

CPU - Intel is minimum & inter i7 or i9 are preferred.
Development Environment Requirement: Jupyter Notebook, Google
Operating Environment Required: Linux, windows.
API: Streamlit an External Interface Required Functions.
Requirment: Python, spider, Anaconda, Vscode, Boothstrap mode.

Result:

2008 Summer has a Team of 82 for Event Swimming Women's 50 meters Free Style. Add insight to favorites. Event Athletics Women's 100 Meters has the highest Team at 407, Out of which Games 2008 Summer contributed the most.

5. Advantages & Disadvantages:

Advantages:

* Deeper insight into the performance of countries in the Olympic over the year & helps athlets to quickly analyze their own & competitors performance
* At last we can come to a decision & make the Olympic Games better by knowing the data & visualizate on better

Disadvantages:

* Due to former geographical or historical changes analyses vary.
* So it is a disadvantage so the data will not be stable.
* Lots of big data is unstructured
* Big data analysis violates principle of privacy.

6. Applications:

* To find out the growth in the performance of a country in the Olympics over the years.
* It can be used to find no of medals won in each year.
* No. of medals won by different countries.
* No. of medals won by male & female.
* Most no. of medals won by each player.
* Most medals won by female player.
* Most medals won by male player.
* Data Analytics can be used in weather condition.

7. Conclusion:

The main objective of this study was to analyse & visualize the various factors which have contribute to the evolution of the Olympics games over the years.

We have used a technique named Exploratory data analysis factors of a dataset into a visual formate. The primary factors of a data into a visual formate. We selected Python language to implement our work break because it is one of the implement languages suitable for data analysis & is the platform where we have performed this Analysis.

8. Future Scope:

We have visualized our data in Graphical formats. We can also describe fine data in other formats like geographical form where we can depict the countries on the world map.

Till now we have only performed data analysis using Exploratory Data Analysis. We can also create a Predictive

In Visualization-1:

We can find the sex like male & female percentage over here.

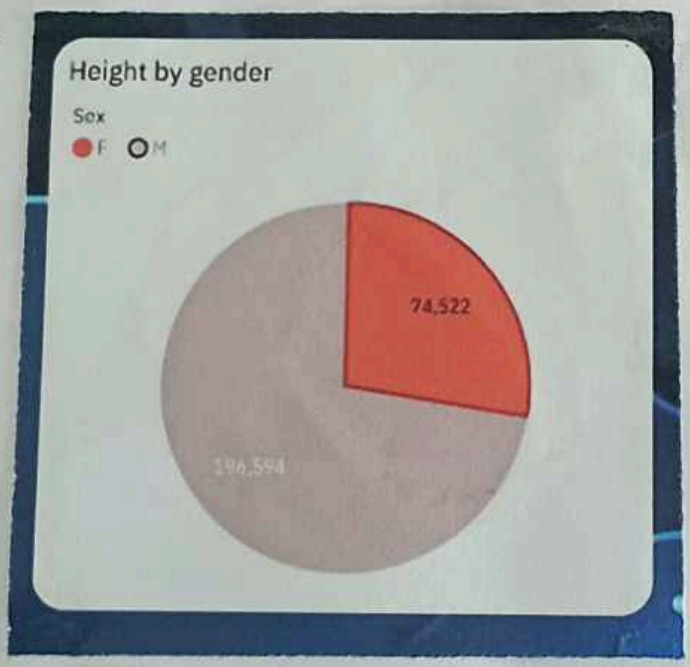
There are 74.22 % of female in olympics and 196.594 % of male in olympics.

Here we can see the height by gender in the pie chart formate.

Height By Gender

- Female
- Male.

↑ Sex ↑



In Visualization - 2

We can find the medals won by different countries it is represented on map.

Here we can find gold, silver, bronze by count.

* Different colours indicates the different countries
* Every year/term means for every four year we have summery Games & Winter Games
* In Previous in single year both summer & winter Games could held.
* But now in couple of years the Games are going

In Visualization - 3

we can find no. of medals won by male & female seperately and it is represented on donut chart/ pie chart.

In the previous topic the shown about are gold, silver & bronze medal in this we can find the medals won by men & women seperately.

Games in the year 1952:

In Visualisation - 4

We can find the most no. of medals won by player & is represented as Scatter plot.

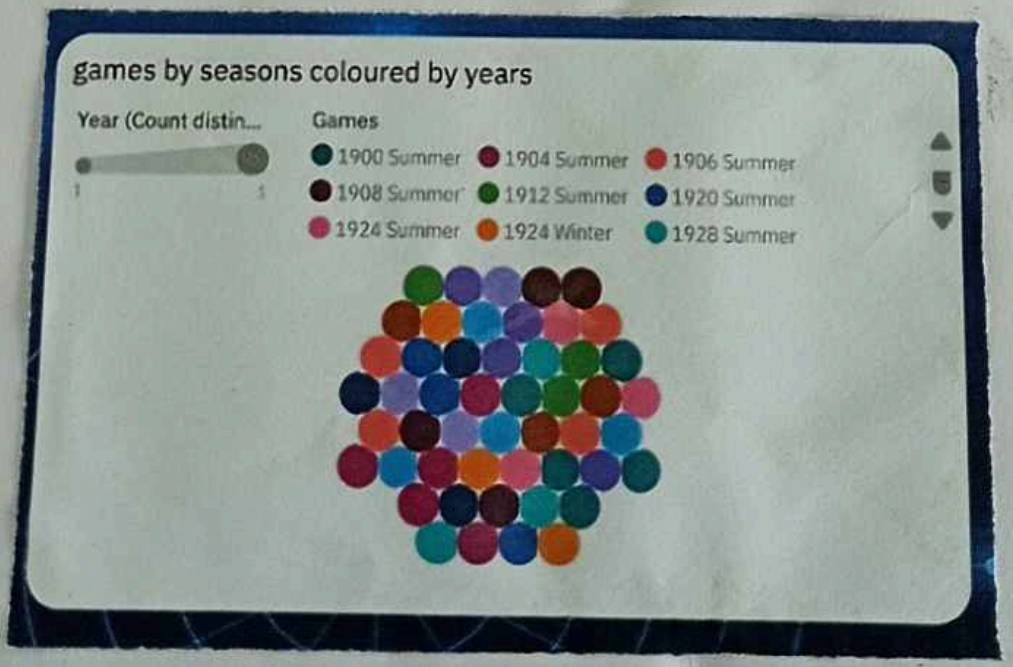
Here we can see no. of gold, Silver, bronze medals won by each player in olympics.

Every player from every country tried their level best & won many medals to their countries.

From every country there are male & female players. And everyone won medals.

Games by seasons coloured by years:

- Summer
- Winter



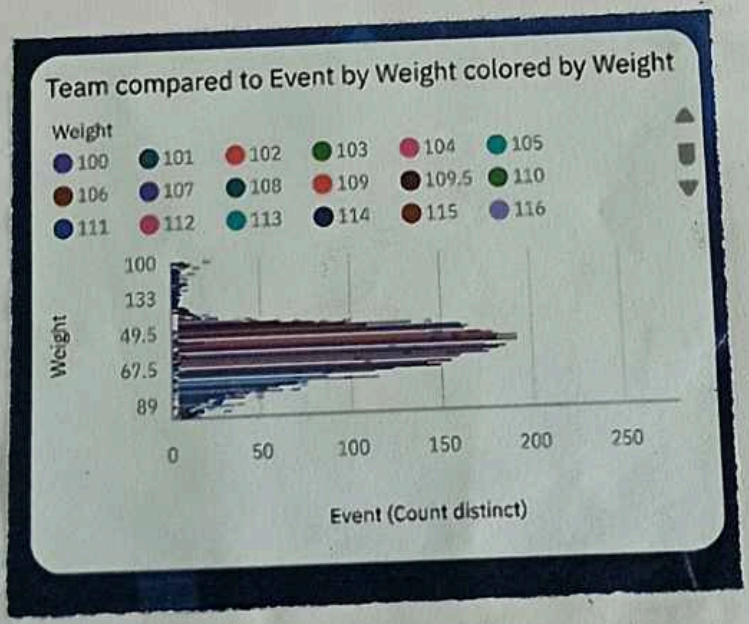
In Visualization - 5:

We can find the team compared to Event by weight, colored by weight.

The different different colocers make I shows the different weights. in the graph model.

In the y-axis it indicates the weight and in the x-axis it shows Event (count distinct) with the scale 1x = 50.

Team Compared to Event By Weight With Colored



In Visualization - 06:

We can find the Games as per seasons like summer & winter. And the colour indicates the different / difference between years.

The data is presented in graphical method. The total team count in y-axis is 0 - 5,000 and the olympics years are in x-axis with difference 1900 - 2014 in both summer & winter Gaming Seasons

Team Compared To Team By Games Coloured By Seasons: