



# Athletics Sponsorship

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SEP/2019

# Athletics

**Athletics** is a collection of sporting events that involve **running**, **jumping** and **throwing** competitive skills. The most common types of athletics competitions are track and field, road running, cross country running, and race walking.

The name is derived from the Greek word “Athlon”, meaning “contest”. Organized athletics are traced back to the Ancient Olympic Games from 776 BC.



# Athletics

## PROBLEM:

How to choose the best investments in sports sponsorship among athletes who compete professionally in competitions worldwide?







## International Association of Athletics Federations

The International Association of Athletics Federations (IAAF) is the **international governing body for the sport of athletics**. Founded in 1912 and headquartered in Monaco since 1993, the IAAF has 215 member nations and territories.

IAAF has undertaken to create a **global Ranking System** where athletes score points based on a combination of result and place depending on the level of the competition in which the result is achieved. The ranking is then based on their average score over a certain number of competitions in a defined period of time.



COUNTRY  CANADA	
DATE OF BIRTH 10 NOV 1994	ATHLETE'S IAAF CODE 14535607
Average of Performance Scores: 1370	
Ranking Score: 1370	

A photograph of athlete De Grasse running on a track. He is wearing a white tank top with a Canadian flag and the word "CANADA" in red. He also has a bib with "TDK" and "DE GRASSE" on it.

# IAAF World Ranking

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As of 03 Sep 2019

PLACE	COMPETITOR	DOB	NAT	SCORE	EVENT LIST
1	Eliud KIPCHOGE	05 NOV 1984	 KEN	1466	Marathon
2	Noah LYLES	18 JUL 1997	 USA	1464	100m,200m
2	Karsten WARHOLM	28 FEB 1996	 NOR	1464	400mH
4	Sam KENDRICKS	07 SEP 1992	 USA	1434	Pole Vault
5	Rai BENJAMIN	27 JUL 1997	 USA	1429	400mH
6	Juan Miguel ECHEVARRÍA	11 AUG 1998	 CUB	1424	Long Jump
7	Armand DUPLANTIS	10 NOV 1999	 SWE	1421	Pole Vault
8	Piotr LISEK	16 AUG 1992	 POL	1418	Pole Vault
9	Daniel STÅHL	27 AUG 1992	 SWE	1416	Discus Throw
10	Nijel AMOS	15 MAR 1994	 BOT	1410	800m

# Project walkthrough

- Webscrap men's world ranking from IAAF website
  - Men's overall ranking (all events) – 121 pages each
    - Scores from the last week of each month – 96,000 scores
  - **Selenium**
  - **BeautifulSoup**
- Loop for storing all the relevant information into a data frame
  - **Pandas**
  - **Numpy**
- Data cleansing
  - Parse the date of birth
  - Events list (count)
  - Variables creation (age, ranking date)
- Descriptive Analysis
  - **Matplotlib**
  - Group by country and by athlete



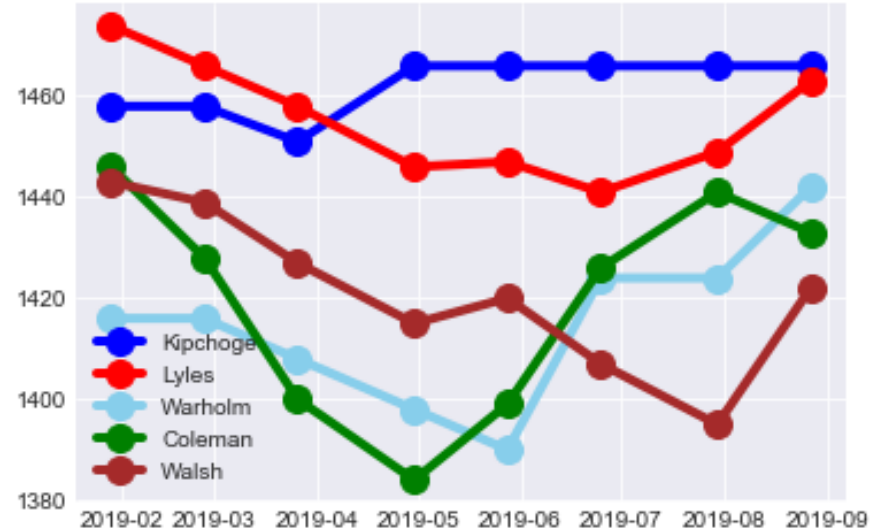
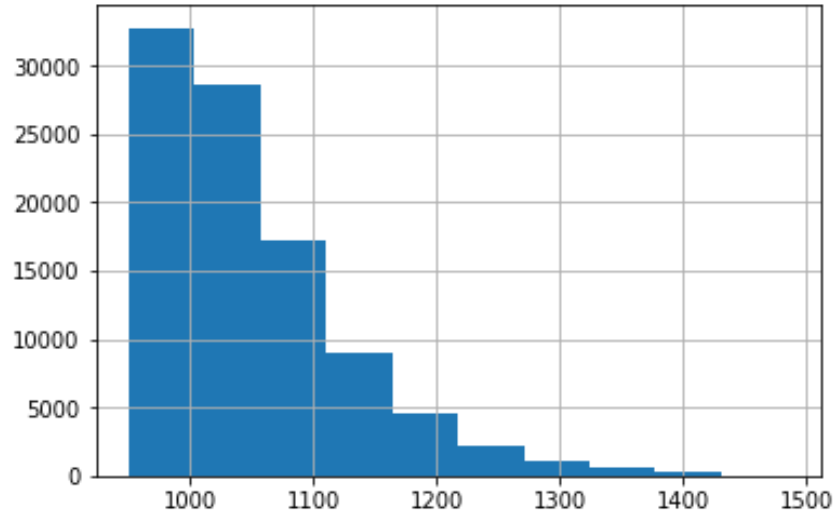
# Scores - Countries



Country	# Athletes	Avg age	Avg # events	Avg score per athlete	Scores Std. Dev.	Total Score
USA	2,931	23.73	1.31	1,040.49	63.20	3,049,690
JPN	1,025	24.38	1.16	1,046.72	62.02	1,072,886
KEN	658	27.51	1.16	1,116.71	89.13	734,794
GBR	445	24.25	1.28	1,060.25	73.04	471,811
FRA	431	24.15	1.24	1,049.55	72.65	452,354
CHN	370	23.08	1.09	1,056.73	68.36	390,990
GER	340	23.90	1.20	1,063.80	75.85	361,693
ESP	319	24.93	1.23	1,049.05	68.40	334,647
ITA	268	24.66	1.17	1,056.81	69.49	283,225
JAM	237	22.50	1.35	1,076.08	82.26	255,030

\* As of the last week of August/2019

# Scores – Athletes



\* As of the last week of August/2019



# Next steps

- Expand the analysis for women's scores
- Expand analysis for weekly results
- Segment the analysis by event
- Enhance the dataset with athletes' photos and individual results
- Enhance the dataset with external information, for deeper exploration

