✓ **Milestone 3** | ESPN's 10 Years of Top 10

INTRODUCTION: In this SkillBuilder, you've learned how to create three of the most fundamental types of charts: bar charts, line charts, and histograms. Along with creating these charts, you learned how to create calculated fields in Tableau, which lets you combine existing features into new ones, leading to richer analyses.

In this Milestone, you'll be practicing your Tableau skills with a dataset featuring ten years of the top 10 highest-paid athletes in the world, from 2012 to 2022.

HOW IT WORKS: Follow the prompts in the questions below to investigate your data. Post your answers in the provided boxes: the **yellow boxes** for the queries you write, **purple boxes** for visualizations and **blue boxes** for text-based answers. When you're done, export your document as a pdf file and submit it on the Milestone page – see instructions for creating a PDF at the end of the Milestone.

RESOURCES: If you need hints on the Milestone or are feeling stuck, there are multiple ways of getting help. Attend Drop-In Hours to work on these problems with your peers, or reach out to the HelpHub if you have questions. Good luck!

PROMPT: You've been hired by ESPN to contribute to their Ten Years of Top Ten project. In particular, your job is to analyze, summarize, and visualize trends in the past ten years of the top ten highest-paid athletes. In the visualizations you create, never forget to add titles (maybe even subtitles!) to bring home your analysis.

SQL App: Here's that link to our specialized SQL app, where you'll write your SQL queries and interact with the data.

— Data Set **Description**

The Forbes list of highest paid athletes (`forbes.highest_paid_athletes`) consists of ten years of the top ten highest-paid athletes in the world in each of the years from 2012 through 2022. Here are variables that you'll be using in this Milestone:

- **year** - year of earnings, defined by 12 months leading to May 1st
- **rank** - An athlete's rank (1–10) for a given year, based on their total earnings
- **name** - Athlete's name
- **sport** - Athlete's sport
- **country** - Country the athlete represents
- **total_earnings_mil** - Total annual earnings for a given athlete in a given year, in millions $USD
- **on_field_earnings_mil** - On-field earnings figures include prize money, salaries and bonuses for a given athlete in a given year, in millions $USD
- **off_field_earnings_mil** - Off-field earnings figures are an estimate of sponsorship deals, appearance fees, and memorabilia and licensing income for a given athlete in a given year, in millions $USD

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— Task 1: Query the Data

A. Write a query that returns all the values in the dataset (`forbes.highest_paid_athletes`). Copy and paste your query into the box below.

(paste your query below 👇)

```
select
    *
from
    forbes.highest_paid_athletes;
```

B. While you'd typically download the output of your query as a .csv file and upload this .csv file to a Tableau workbook, that's already been done for you! **Click this link to navigate to the workbook you'll use to complete the remainder of this Milestone.**

Remember to publish your Tableau Workbook in the folder named Upload Workbooks Here.

Note: Your share link <u>must</u> begin with:
`https://prod-useast-b.online.tableau.com/#/site/globaltech/workbooks/...`
`.`

(paste the **Share Link** below 👇)

https://prod-useast-b.online.tableau.com/#/site/globaltech/workbooks/1676810?:origin=card_share_link

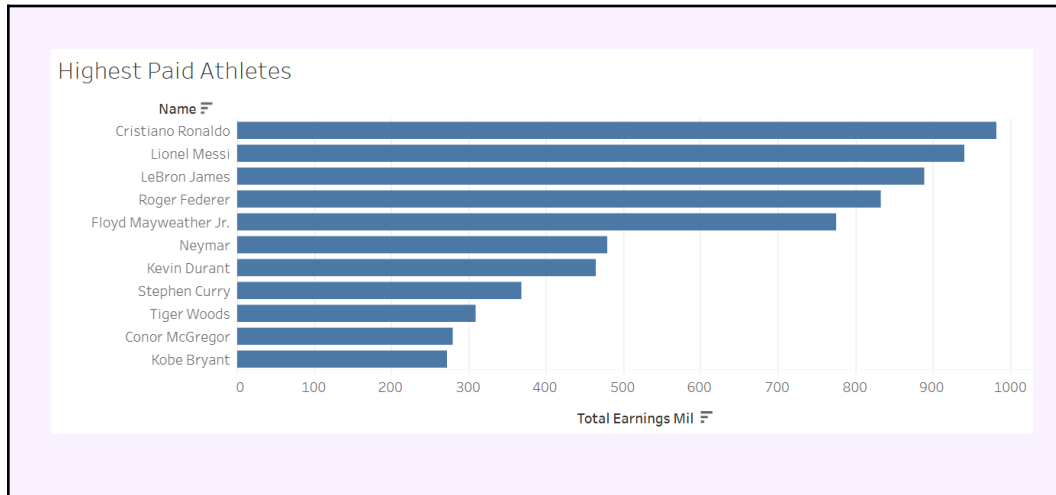# — Task 2: Who are the highest paid athletes?

On Sheet 1 of your workbook, create a bar chart to show the total amount earned by every athlete to ever make the top ten list of highest-paid athletes in the world. Which athlete has made the most money in the years they've made the list? Paste

your visualization into the pink box, and the name of the highest-paid athlete in the blue box.

HINT: Drag the `Name` pill to the Rows and the `Total Earnings Mil` pill to the Columns, then look for the sort button.⊧

(paste your **screenshot** below 👇)

Highest Paid Athletes — horizontal bar chart of Total Earnings Mil by Name: Cristiano Ronaldo, Lionel Messi, LeBron James, Roger Federer, Floyd Mayweather Jr., Neymar, Kevin Durant, Stephen Curry, Tiger Woods, Conor McGregor, Kobe Bryant.

(write your **answer** below 👇)

Cristiano Ronaldo has made 983 million dollars
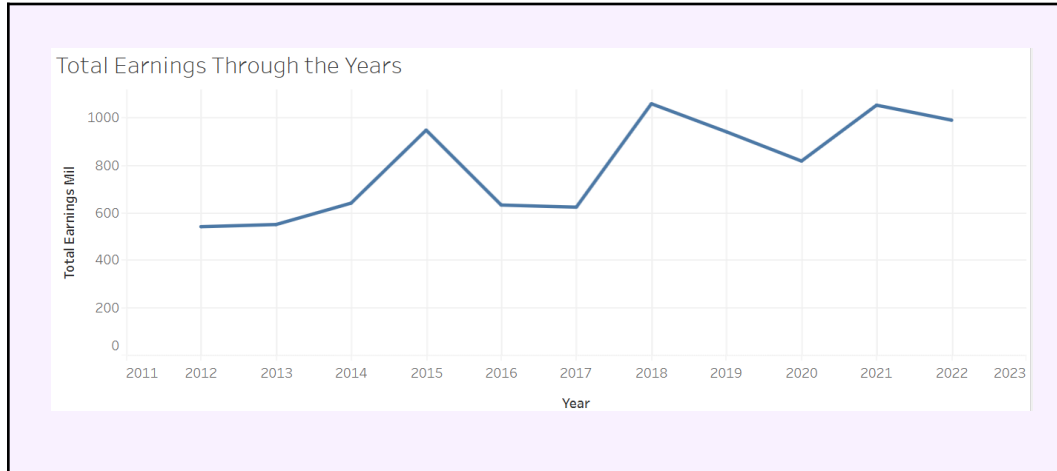
— **Task 3:** Ten Years of Top Ten

On Sheet 2 of your workbook, create a line chart to show the total amount of gross money earned by the highest-paid athletes in the world each year. What is the general trend in earnings by the highest-paid athletes? In what years are the athletes earning the most? In what years are they earning the least? Paste your visualization and write your answer below.

Note: The data for each year only includes the top ten highest-paid athletes from that year. You do not need to filter to the "top 10" in this milestone.

HINT: Start by dragging the `Year` pill to the Columns and the `Total Earnings Mil` pill to the Rows.

(paste your **screenshot** below 👇)

Total Earnings Through the Years

(write your **answer** below 👇)

> The general trend in earnings by the highest paid athletes is positive. Athletes earned the most in 2018 (1057 million) and 2021 (1051 million), and they started earning significantly more every three years, starting in 2015. Before 2015, they were earning the least; other than that, they were earning less between the 3 year periods.
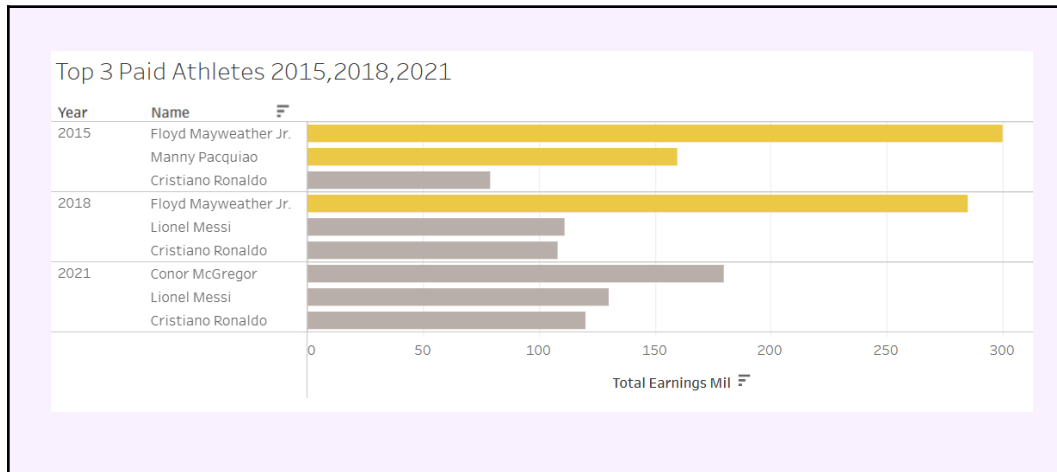
— Task 4: Securing a Fortune in One Night of Work

Let's investigate the peaks in cumulative earnings seen in 2015, 2018, and 2021.

A. On Sheet 3, create a bar chart that shows for only the top 3 highest-paid athletes in the years 2015, 2018, and 2021 their total earnings.

HINT: you'll use both rank and year in your filter. Paste your visualization below.

HINT: Start by dragging the `Year` and `Name` pills to the Rows and the `Total Earnings Mil` pill to the Columns.

(paste your **screenshot** below 👇)

Top 3 Paid Athletes 2015,2018,2021

Year	Name	
2015	Floyd Mayweather Jr.	
	Manny Pacquiao	
	Cristiano Ronaldo	
2018	Floyd Mayweather Jr.	
	Lionel Messi	
	Cristiano Ronaldo	
2021	Conor McGregor	
	Lionel Messi	
	Cristiano Ronaldo	

Total Earnings Mil

B. Which athletes are ranked number 1 in 2015, 2018, and 2021? In what sport do they compete?

(write your **answer** below 👇)

2015: Floyd Mayweather
2018: Floyd Mayweather
2021: Conor McGregor

C. What events occurred in 2015 and 2018 that led to the top earner making his millions? If you don't know, use the internet to help you find the answer!

(write your **answer** below 👇)

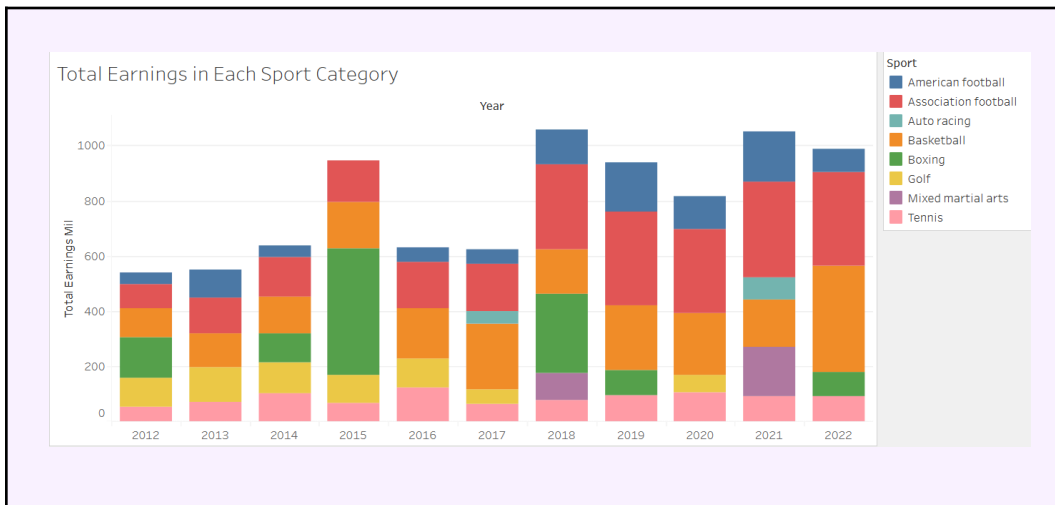2015: Floyd Mayweather won the "Fight of the Century"

D. **LevelUp**. Let's make this visualization really pop. Create a calculated field called **is-boxing** that returns "Boxing" if the sport is Boxing and otherwise returns "Other". Add this calculated field to Color in the Marks of your visualization, and edit the colors so that "Boxing" is emphasized and "Other" is not.

— Task 5: Footballers & Basketballers

A. On Sheet 4, create a bar graph to show the total amount of money earned between 2012 and 2022 in each sport category. What are the two highest-paid sports? Paste your visualization and write your answers below.

HINT: Start by dragging the `Sport` pill to the Columns and the `Total Earnings Mil` pill to the Rows.
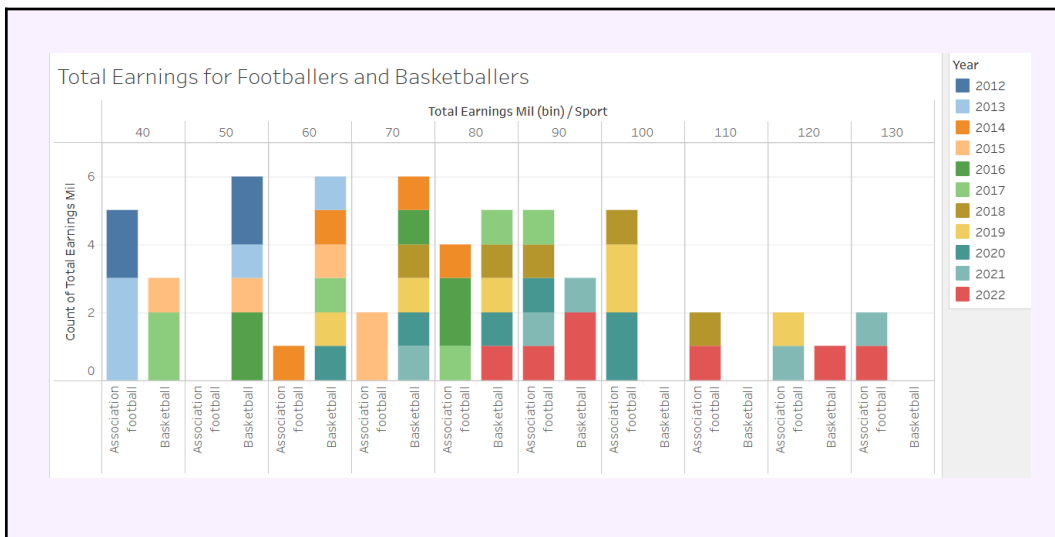
(paste your **screenshot** below 👇)

Total Earnings in Each Sport Category

(write your **answer** below 👇)

B. On Sheet 5, create a histogram of the total annual earnings. Use a bin size of 10. Add sport to the columns and filter so that you see only the distribution of total earnings for footballers (i.e. Association Football) and basketballers side-by-side. Describe the difference in distribution of total earnings between footballers and basketballers. Paste your visualization and write your answer below.

HINT: Start by dragging the `Total Earnings Mil` pill to the Columns and then click on this button ▁▃▅ in the Show Me pane!
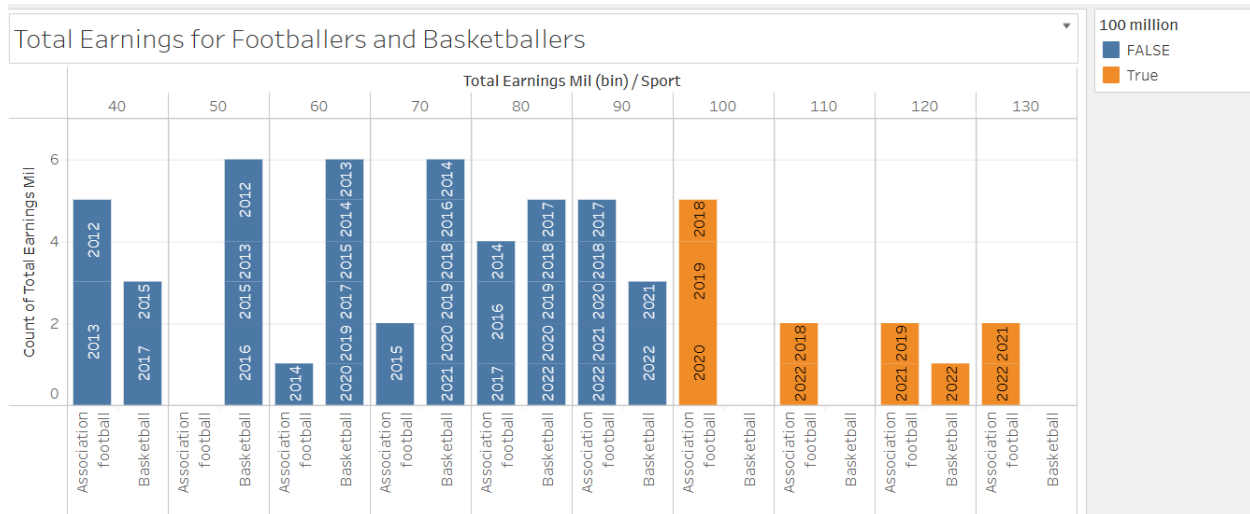
(paste your **screenshot** below 👇)

(write your **answer** below 👇)

Footballers tended to have a higher total earnings as the years passed

C. LevelUp. You might notice that there is only one basketballer to ever surpass earning $100 million in a single year, but that this is a milestone 11 footballers have achieved. Create a calculated field called `100 million` that returns TRUE if the total earnings is greater than $100 million and FALSE otherwise. Add this calculated field to Color in the Marks of your visualization, and edit the colors so that the number of times the $100 million threshold has been exceeded is highlighted.

— Submission

Great work completing this Milestone! To submit your completed Milestone, you will need to download / export this document as a PDF and then upload it to the Milestone submission page. You can find the option to download as a PDF from the File menu in the upper-left corner of the Google Doc interface.

Tableau Workbook Link:

https://prod-useast-b.online.tableau.com/#/site/globaltech/workbooks/1676810?:origin=card_share_link