



# **Data Analysis Portfolio**

**BY: NWOKORIE UZOMA WINNER**

# Professional Background:

*With a good communication skill, I am driven by the desire to provide a positive and tangible impact to any business environment I find myself in.*

*Nwokorie Uzoma Winner holds a BSc in financial Accounting , An MSc(in view) in Business Management , I have acquired knowledge and experience in the accounting and data analytic field . Having also been certified as a skilled and proficient data analyst i have gained expertise in Data collection, sorting, story telling , interpretation and analysis of data to make meaningful business decisions that would advance any organization. This to me has become more of passion than anything else.*

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# **Udemy Data Analysis**

# Project Description:

- ↳ To better understand the pricing and subscriptions data of Udemy courses (for four different subjects) and identifying trends and patterns
- ↳ This will help us to:
  - ↳ Identify for which subject more courses should be created
  - ↳ Create targeted strategies to increase the company revenue



# Key questions:

1. What are the total numbers of subscribers in each subject?
2. How does the average content duration/price/number of students vary across different subjects?
3. How many courses are free and paid for each subject?
4. What is the average price of web development courses at different levels?
5. What are the 20 most popular courses? Also, include the following information:
  - Their level
  - Whether they are free or paid
  - Whether any are free beginner courses,
  - and the duration of the courses.
6. Does content duration impact the price of the course?



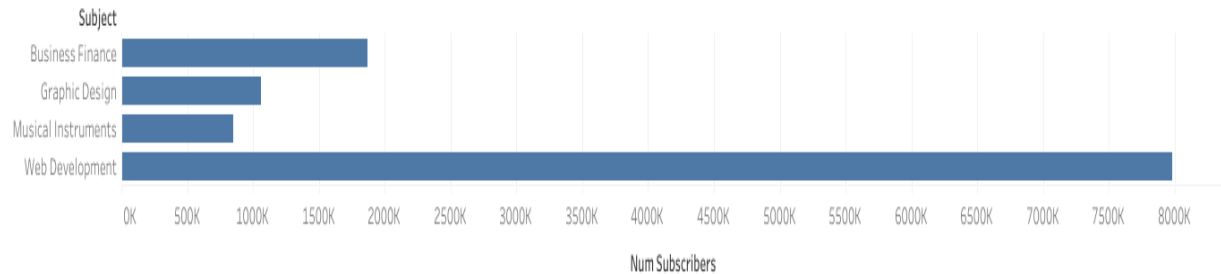
# Findings & Insights

# 1. What are the total numbers of subscribers in each subject?



	SUM of num of subscribers
Business Finance	1868711
Graphic Design	1063148
Musical Instruments	846689
Web Development	7981935
Grand Total	11760483

Sheet 1



## Key findings.

From the table and chart above, we can find out that web development has the highest number of subscribers, with a wide margin, followed by business finance, Graphic Design and then Musical Instrument

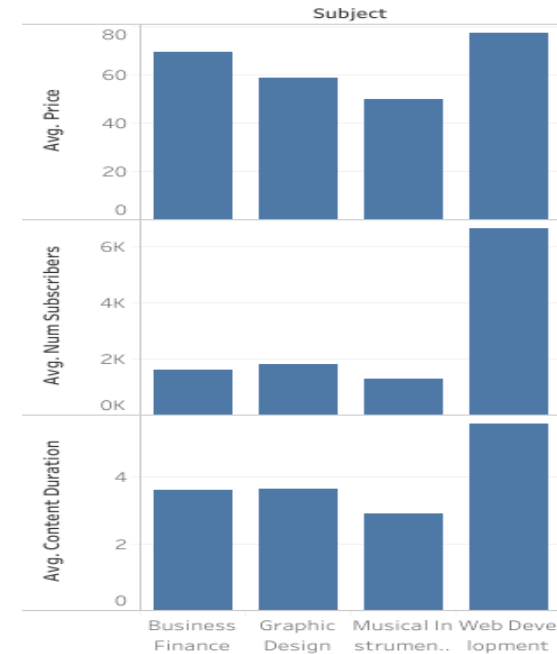


## 2. How does the average content duration/price/number of students vary across different subjects?



subject	AVERAGE of content_duration	AVERAGE of price	AVERAGE of num_subscribers
Business Finance	3.6	69.078	1617.93
Graphic Design	3.6	58.767	1820.46
Musical Instruments	2.9	49.649	1265.60
Web Development	5.6	77.037	6635.02
Grand Total	4.1	66.462	3256.85

Sheet 2



### Key Findings...

From the data and chart above we can see that web development irrespective of the price and content duration on the average level has a bigger amount of number of subscribers. Followed by Graphic design, business finance and then musical instrument. There is also a slight difference in the average number of subscribers and price for Graphic design, and Business Finance despite having the same average content duration. Musical instrument has the lowest amount of average number of subscribers, price and content duration.

### 3. How many courses are free and paid for each subject?

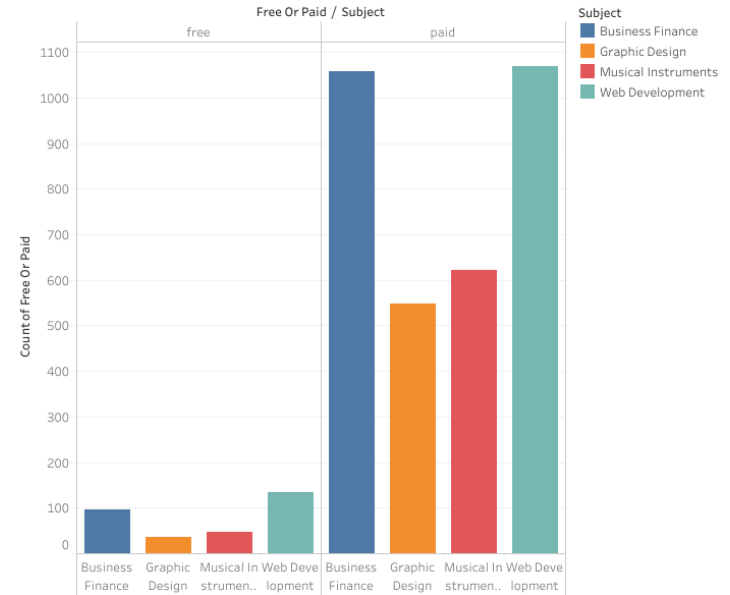


subject	free	paid	Grand Total
Business Finance	96	1059	1155
Graphic Design	35	549	584
Musical Instruments	46	623	669
Web Development	134	1069	1203
Grand Total	311	3300	3611

#### Key findings.

From our chart and table we can find out that Web development has the highest number of free courses, and also the Highest number of paid courses, followed by Business Finance, musical instrument and then graphic design

Sheet 3

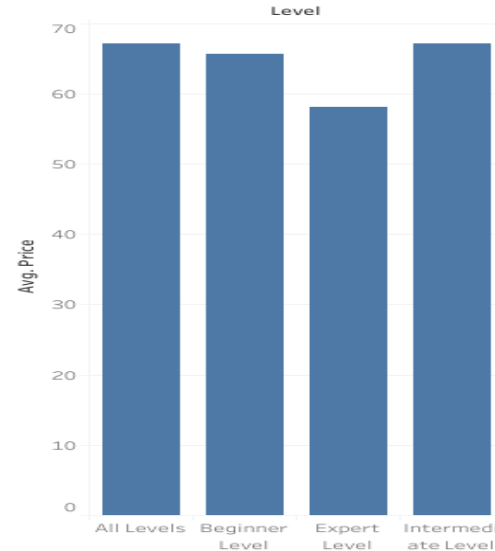


## 4. What is the average price of web development courses at different levels?



level	AVERAGE of price
All Levels	74.55
Beginner Level	78.54
Expert Level	67.14
Intermediate Level	85.07
Grand Total	77.04

Sheet 4

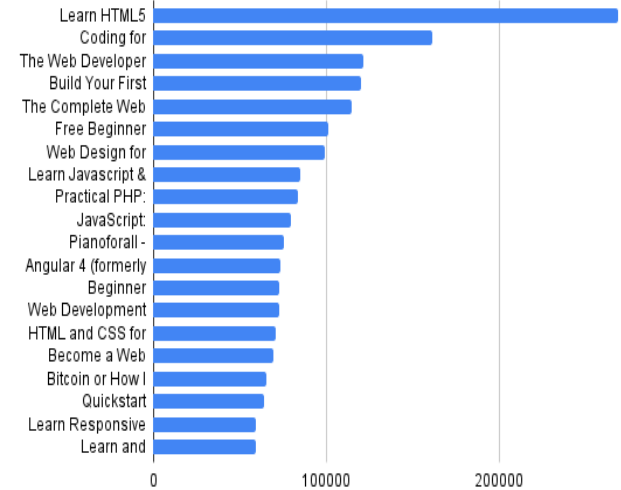


### Key findings...

From our data and chart we can find out that the increase in the average price at the intermediate level is higher compared to the other levels, which are the beginner level, all level and the expert level accordingly.

## 5. What are the 20 Most Popular courses

course id	course name	total subscribers	level	free or paid	free beginner course	course duration
41295	Learn HTML5 Programming From Scratch	268923	Beginner Level	free	True	10.5
59014	Coding for Entrepreneurs Basic	161029	Expert Level	free	false	3.5
625204	The Web Developer Bootcamp	121584	Beginner Level	paid	false	43
173548	Build Your First Website in 1 Week with HTML5 and CSS3	120291	All Levels	free	false	3
764164	The Complete Web Developer Course 2.0	114512	Beginner Level	paid	false	30.5
19421	Free Beginner Electric Guitar Lessons	101154	All Levels	free	false	4.5
473160	Web Design for Web Developers: Build Beautiful Websites!	98867	All Levels	free	false	3
94430	Learn Javascript & JQuery From Scratch	84897	All Levels	paid	false	2
130064	Practical PHP: Master the Basics and Code Dynamic Websites	83737	Intermediate Level	free	false	6.5
364426	JavaScript: Understanding the Weird Parts	79612	All Levels	paid	false	11.5
238934	Pianoforall - Incredible New Way To Learn Piano & Keyboard	75499	Beginner Level	paid	false	30
756150	Angular 4 (formerly Angular 2) - The Complete Guide	73783	Beginner Level	paid	false	22
21386	Beginner Photoshop to HTML5 and CSS3	73110	All Levels	free	false	2
65330	Web Development By Doing: HTML / CSS From Scratch	72932	All Levels	free	false	1
405926	HTML and CSS for Beginners - Build a Website & Launch ONLINE	70773	All Levels	free	false	6
11174	Become a Web Developer from Scratch	69186	All Levels	paid	false	27.5
49798	Bitcoin or How I Learned to Stop Worrying and Love Crypto	65576	All Levels	free	false	8
314462	Quickstart AngularJS	64128	Beginner Level	free	True	1.5
128946	Learn Responsive Web Development from Scratch	59639	All Levels	free	false	4.5
289230	Learn and Understand AngularJS	59361	Beginner Level	paid	false	7

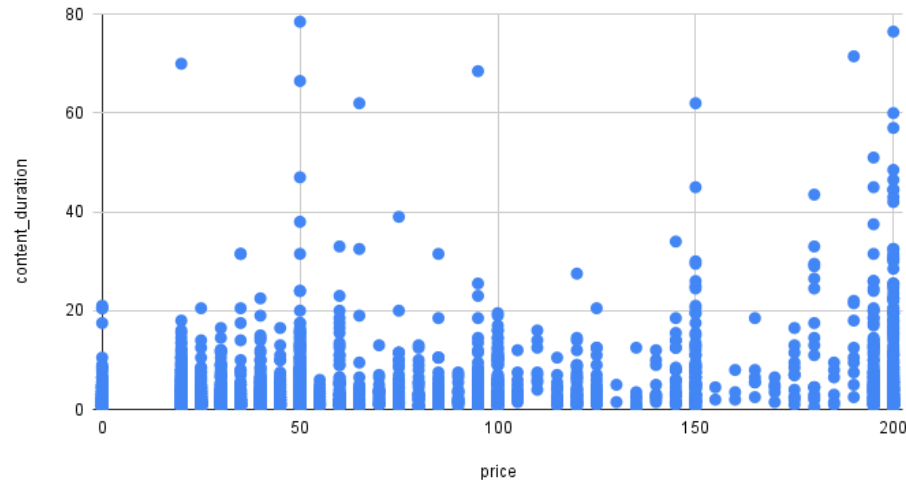


### Key Findings...

The table and the chart shows the 20 most popular courses from the top most popular course which is the **learn HTML5 programming from scratch** which is a free beginner level course to the twentieth course which is the **learn and understand angularJS** which is a paid beginner level course. And this can be deduced from the number of subscribers in each of the courses.

## 6. Does Content Duration Impact The Price Of The Courses

content\_duration vs price



### Key Findings...

This is a scatter plot chart to show the impact of content duration on the price of courses, and from our findings

We can see that irrespective of the content duration 0 to 80hrs there , it did not affect the price at any particular number of hours of the content duration.

# Summary of findings:



- **Top 5 courses:**
  - Almost 68% of subscribers come from Web Development and the top 5 courses are for Web development as well .
- **Business Finance vs. Web Development:**
  - Business Finance and web development have almost equal number of total courses (1155 vs 1203), but web development course are almost 2x in content duration and have 4x the average subscribers .
- **Course Pricing:**
  - There are more paid courses than there are free courses.
  - Web development has the greater number of the paid courses .
  - Web development has the greater number of the free courses .
  - Content duration of all courses has no impact on the price of the course.

# Recommended actions



## **Product recommendations:**

- Focus on getting more paid course by creators in web development, there are a lot of people willing to go for the courses under web development.

## **Marketing recommendations:**

- Our data tells us that our web development courses are most popular and people are willing to pay for it. Marketing and advertising campaigns should therefore be more targeted at letting people know that we offer courses under web development so people can come and enroll for it



# Capstone Project





## Project Description:

*A dataset of video games with sales greater than 100,000 copies to provide insights and recommendations to improve sales and revenue.*

*This will help me to:*

- ↳ make data-driven decisions about game development, marketing, and pricing for video game publishers*
- ↳ Create targeted strategies to increase the company revenue*

# Key questions



1. What are the top-selling video games by genre and platform, and how do sales vary by region?
2. What is the total revenue generated in all regions by genre.
3. Top 20 publishers
4. Total sales by regions
5. Which year had the highest game sales worldwide.



# Findings & Insights

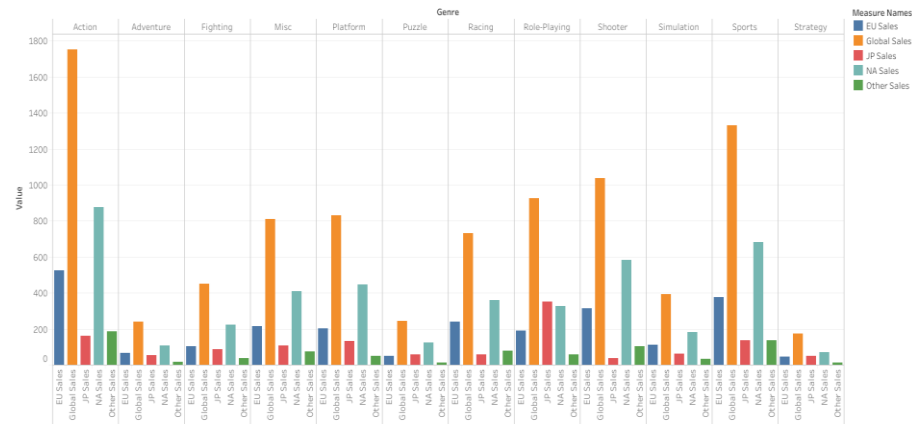
# 1. What are the top selling video games by genre and platform and how does sales vary by region



Top selling games by genre across all regions.

Genre	SUM of NA_Sales	SUM of EU_Sales	SUM of JP_Sales	SUM of Other_Sales	SUM of Global_Sales	Total Sum_Sales
Action	877.83	525	159.95	187.38	1751.18	3501.34
Adventure	105.8	64.13	52.07	16.81	239.04	477.85
Fighting	223.59	101.32	87.35	36.68	448.91	897.85
Misc	410.24	215.98	107.76	75.32	809.96	1619.26
Platform	447.05	201.63	130.77	51.59	831.37	1662.41
Puzzle	123.78	50.78	57.31	12.55	244.95	489.37
Racing	359.42	238.39	56.69	77.27	732.04	1463.81
Role-Playing	327.28	188.06	352.31	59.61	927.37	1854.63
Shooter	582.6	313.27	38.28	102.69	1037.37	2074.21
Simulation	183.31	113.38	63.7	31.52	392.2	784.11
Sports	683.35	376.85	135.37	134.97	1330.93	2661.47
Strategy	68.7	45.34	49.46	11.36	175.12	349.98
Grand Total	4392.95	2434.13	1291.02	797.75	8920.44	17836.29

Sheet 1

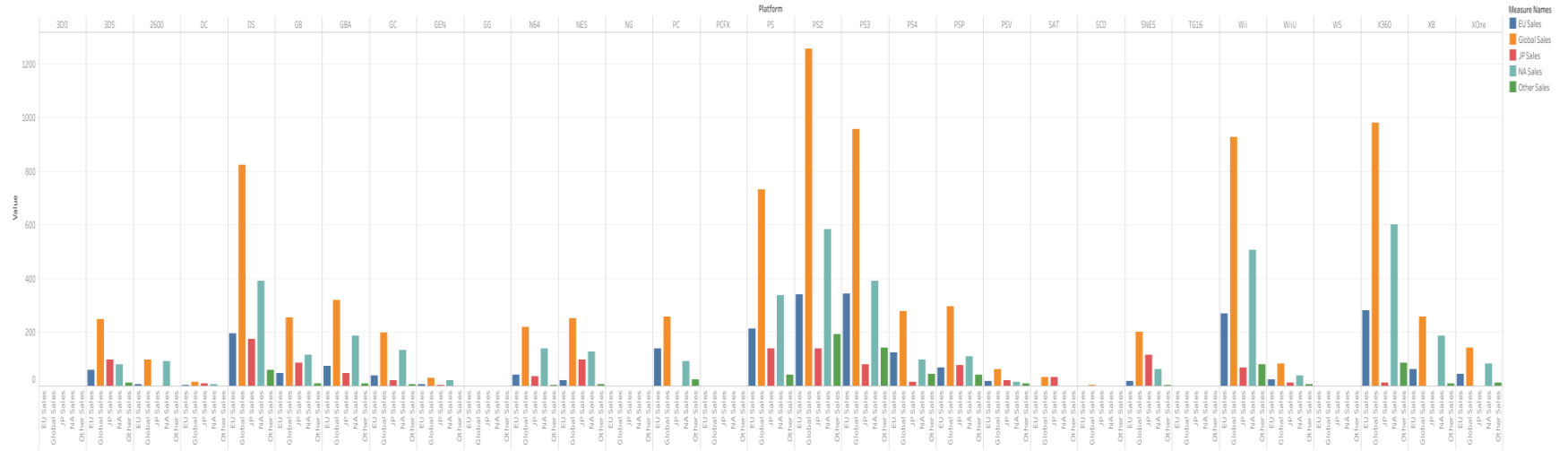


## Key Findings.

From our chart and table we will find out there was a greater sales in action games across all the regions, followed by the sports and shooter games.

# Top selling games by platform across all regions.

Platform	SUM of NA_Sales	SUM of EU_Sales	SUM of JP_Sales	SUM of Other_Sales	SUM of Global_Sales	Total_Sales
2600	90.6	5.47	0	0.91	97.08	194.06
3DO	0	0	0.1	0	0.1	0.2
3DS	78.87	58.52	97.35	12.63	247.46	494.83
DC	5.43	1.69	8.56	0.27	15.97	31.92
DS	390.71	194.65	175.57	60.53	822.49	1643.95
GB	114.32	47.82	85.12	8.2	255.45	510.91
GBA	187.54	75.25	47.33	7.73	318.5	636.35
GC	133.46	38.71	21.58	5.18	199.36	398.29
GEN	19.27	5.52	2.67	0.89	28.36	56.71
GG	0	0	0.04	0	0.04	0.08
N64	139.02	41.06	34.22	4.38	218.88	437.56
NES	125.94	21.15	98.65	5.31	251.07	502.12
NG	0	0	1.44	0	1.44	2.88
PC	93.28	139.68	0.17	24.86	258.82	516.81
PCFX	0	0	0.03	0	0.03	0.06
PS	336.51	213.6	139.82	40.91	730.66	1461.5
PS2	583.84	339.29	139.2	193.44	1255.64	2511.41
PS3	392.26	343.71	79.99	141.93	957.84	1915.73
PS4	96.8	123.7	14.3	43.36	278.1	556.26
PSP	108.99	68.25	76.79	42.19	296.28	592.5
PSV	16.2	16.33	20.96	8.45	61.93	123.87
SAT	0.72	0.54	32.26	0.07	33.59	67.18
SCD	1	0.36	0.45	0.05	1.87	3.73
SNES	61.23	19.04	116.55	3.22	200.05	400.09
TG16	0	0	0.16	0	0.16	0.32
Wii	507.71	268.38	69.35	80.61	926.71	1852.76
WiiU	38.32	24.23	12.79	6.45	81.86	163.65
WS	0	0	1.42	0	1.42	2.84
X360	601.05	280.58	12.43	85.54	979.96	1959.56
XB	186.69	60.95	1.38	8.72	258.26	516
XOne	83.19	45.65	0.34	11.92	141.06	282.16
Grand Total	4392.95	2434.13	1291.02	797.75	8920.44	17836.29



### Key Findings..

From our table of analysis and chart we can see that by platform games under PS2 platform has the greater amount of sales across all regions.

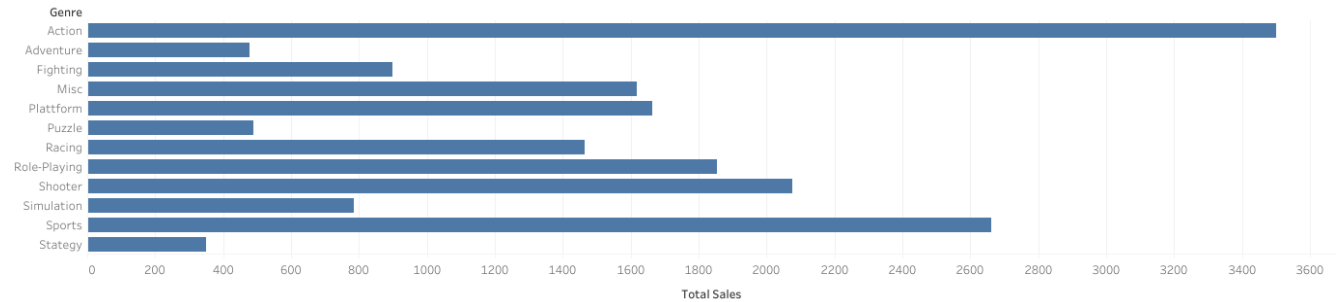
Followed by X360 and ps3.

## 2. What is the total revenue generated in all regions by genre



Genre	Total Sales
Action	3501.34
Adventure	477.85
Fighting	897.85
Misc	1619.26
Platform	1662.41
Puzzle	489.37
Racing	1463.81
Role-Playing	1854.63
Shooter	2074.21
Simulation	784.11
Sports	2661.47
Stategy	349.98

Sheet 5



### Findings..

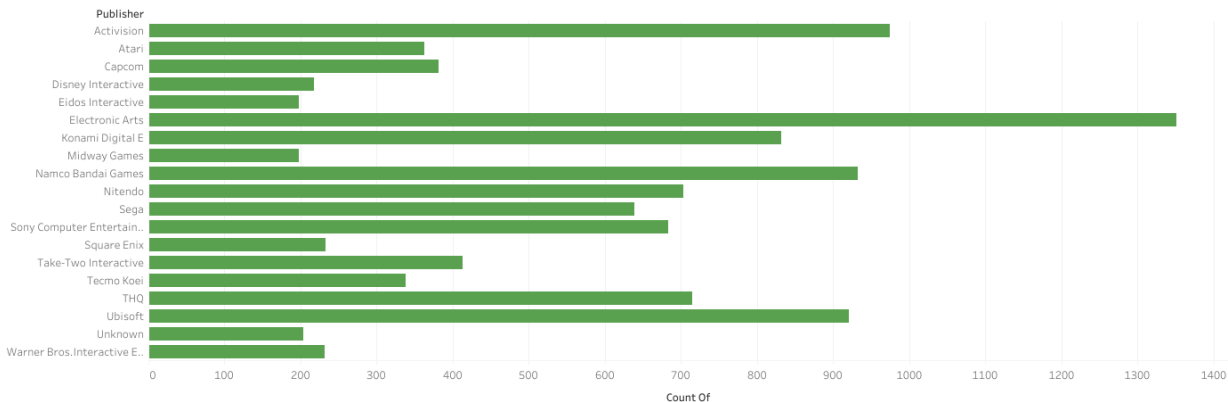
The Chart shows us the distribution of total revenue generated in all regions by the different Genre of games, and from our table and chart we can see that Action games generated more revenue then the Sports genre of games followed by Shooter .

### 3. Top 20 publishers



Publisher	Count Of
Electronic Arts	1351
Activision	975
Namco Bandai Games	932
Ubisoft	921
Konami Digital E	832
THQ	715
Nintendo	703
Sony Computer Entertainment	683
Sega	639
Take-Two Interactive	413
Capcom	381
Atari	363
Tecmo Koei	338
Square Enix	233
Warner Bros.Interactive Entertainment	232
Disney Interactive	218
Unknown	203
Eidos Interactive	198
Midway Games	198

Sheet 6



#### Key Findings..

The Chart shows us the Top 20 Publishers Across all the regions.

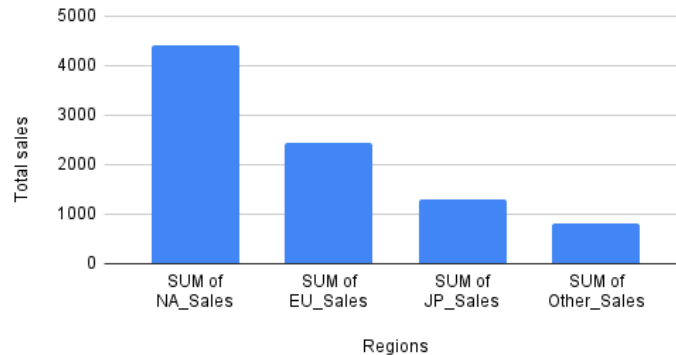
The biggest publishers of games from our analysis are the Electronic Arts Publisher, followed by Activision.



## 4. Total Sales by region

Regions	Total sales
SUM of NA_Sales	4392.95
SUM of EU_Sales	2434.13
SUM of JP_Sales	1291.02
SUM of Other_Sales	797.75

Total sales vs Regions



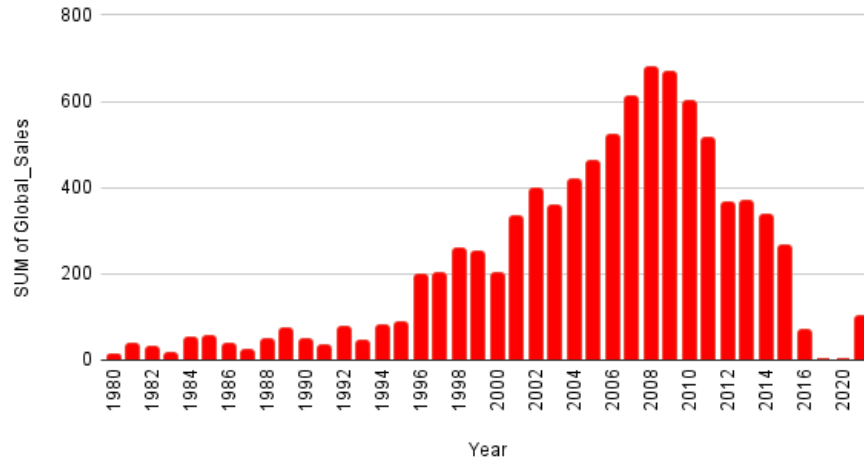
### Key Findings..

The chart and the table clearly shows us that the North American Sales made the most sales compared to other regions Globally, this is followed by sales in Europe, Japan and other regions.

## 5. Which Year had the highest sales worldwide

Year	SUM of Global_Sales
1980	11.38
1981	35.77
1982	28.86
1983	16.79
1984	50.36
1985	53.94
1986	37.07
1987	21.74
1988	47.22
1989	73.45
1990	49.39
1991	32.23
1992	76.16
1993	45.98
1994	79.17
1995	88.11
1996	199.15
1997	200.98
1998	256.47
1999	251.27
2000	201.56
2001	331.47
2002	395.52
2003	357.85
2004	419.31
2005	459.94
2006	521.04
2007	611.13
2008	678.9
2009	667.3
2010	600.45
2011	515.99
2012	363.54
2013	368.11
2014	337.05
2015	264.44
2016	70.93
2017	0.05
2020	0.29
N/A	100.08

SUM of Global\_Sales vs Year



### Findings...

Games produced in the year 2008 made the most sales amongst the other years worldwide.

# Summary of findings:



Based on my findings,

- Action games had a big number of patronage and this is common across all the regions. It generated the bigger number of sales(3501.34) compared to the other genre of games .
- Games produced under PS2 platform had a greater number of sales.
- Electronic Arts Publisher is the publisher with the biggest count of games produced
- Games Produced in the year 2008 made the most sales globally
- North American region had the most sales of games compared to other regions Globally.

# Recommended actions



## **Product recommendations:**

- I will advise that more Genre of Action Games should be produced and sold across all regions because it generates more Revenue. And people are willing to buy across all the regions.
- Games under the ps2 platform were highly sold, so they should venture into more production of games under this platform due to the demand.

## **Marketing recommendations:**

- Our data tells us that ps2 platform games and Action genre of games made the greatest revenue so the company should direct their advertisement and marketing into this Genre and Platform of game.
- Adverts and games promotion should also be directed to other regions other than the North American Region to improve sales.



Thank you!