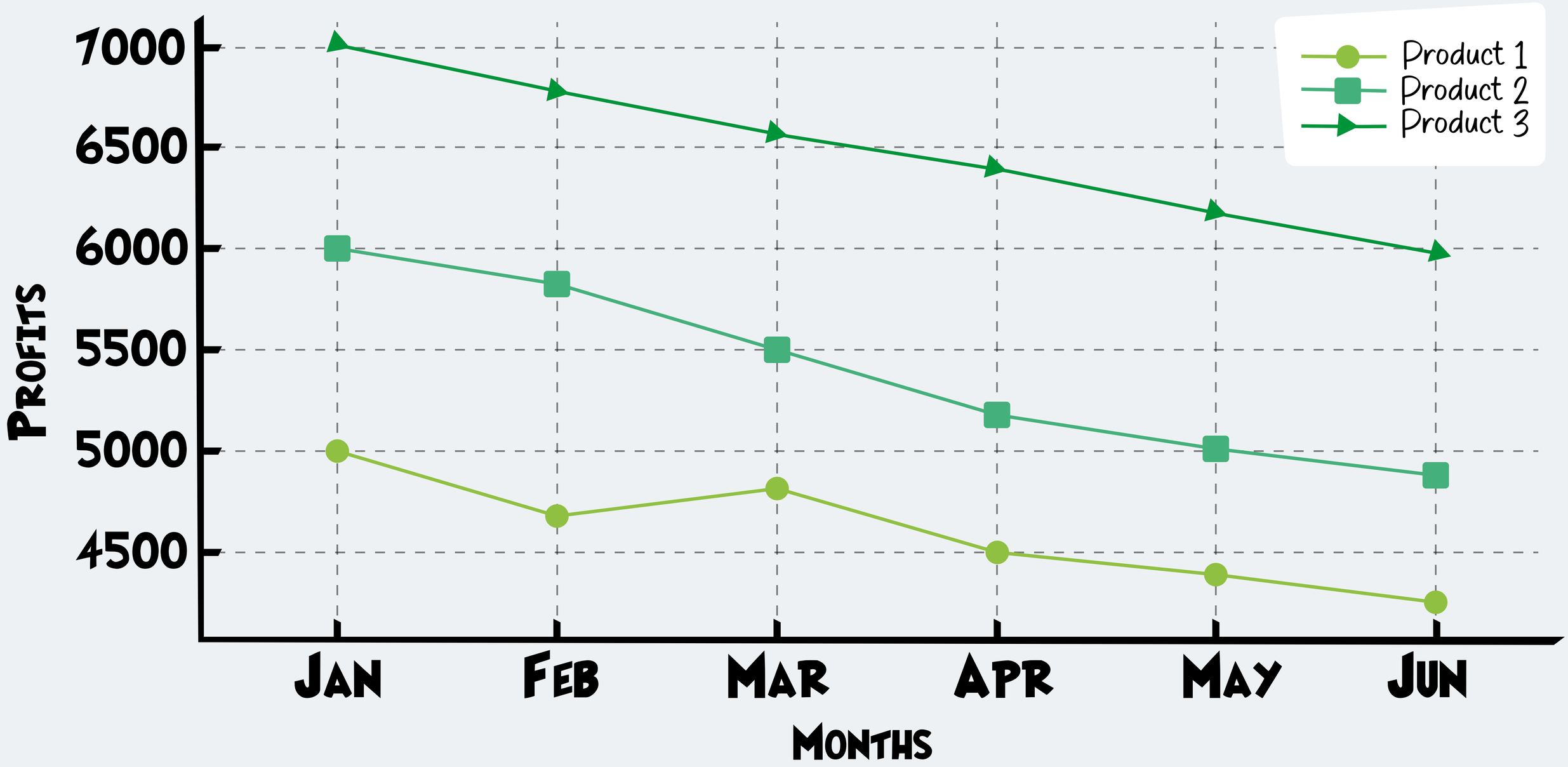
You're a Data Scientist at a company that sells 3 different products, and there's something wrong with the profits.

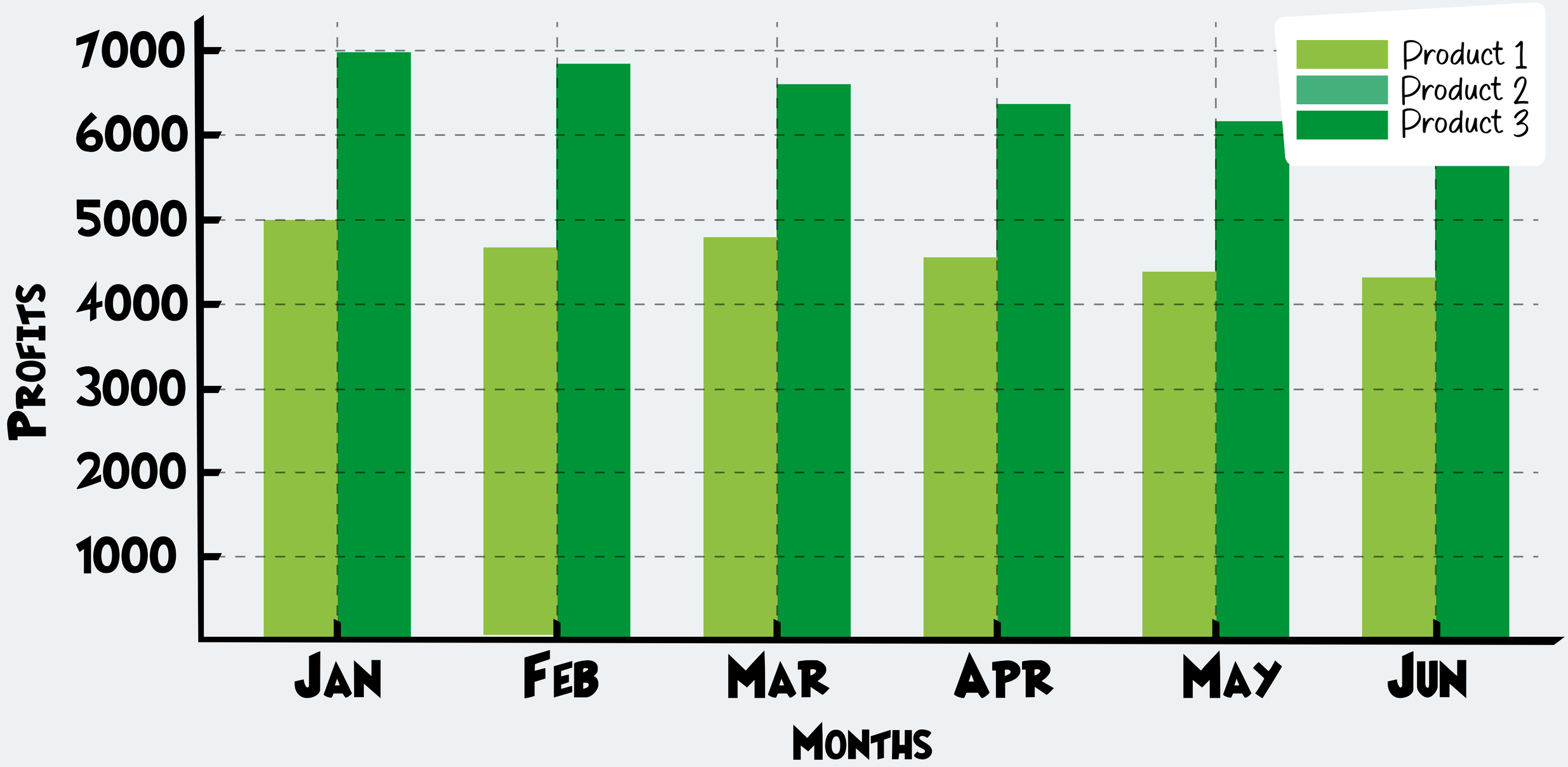
You are tasked to figure out what is happening using data provided by the company.

Data Scientist

Profit Trends Over Time for Each Product



Comparative Profit Margins of the Three Products



Drag-and-drop to match data patterns with business strategies:

Data Insight Cards:

- High Sales in Region X
- Declining Sales Among Customers Aged 50+
- High Customer Acquisition Cost
- Spike in Online Sales During Holiday Season
- High Engagement in Social Media Campaigns
- Low Inventory Turnover Rate
- Decline in Store Traffic Post-Covid
- Increased Sales in Eco-Friendly Products
- Increased Product Returns in the Electronics Category

Business Strategy Cards:

- Plan Holiday Season Promotions in Advance
- Develop New Marketing Campaign for Younger Audience
- Expand Investment in Social Media Advertising
- Optimize Inventory Management Processes
- Develop an Omnichannel Retail Strategy
- Increase Marketing Budget in Region X
- Launch a New Line of Eco-Friendly Products
- Implement Cost-Effective Digital Marketing Techniques
- Quality Control Review in the Electronics Division

Pair each image representing a unique data type with its corresponding matching text:

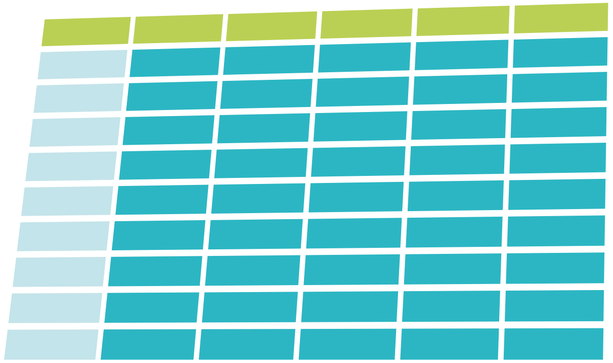
A. Captures information over time, used for forecasting and signal processing.

B. Representing sound signals, used in speech recognition and music analysis.

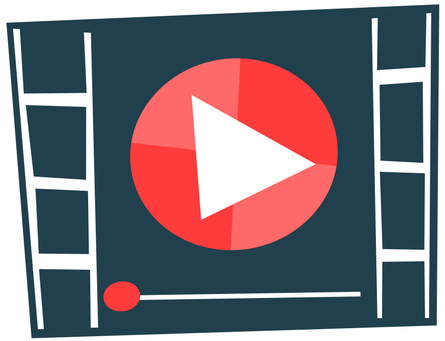
C. Compilation of images over time, used in surveillance and video analytics.

D. Structured in rows and columns, fundamental for databases and spreadsheets.

Pair each image representing a unique data type with its corresponding matching text:

1. 

2.

3. 

4.

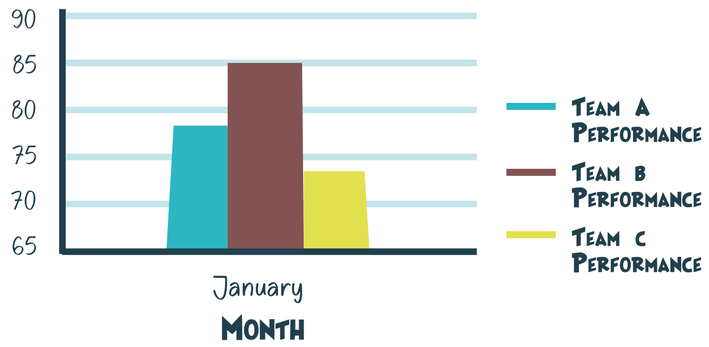
You are provided with a snippet of the Titanic table for illustrative purposes.

Passenger	Survived	Pclass	Name	Sex	Age	SibSp	Parch	Ticket	Fare	Cabin	Embarked
1	0	3	Braund, Mr. Owen Harris	male	22	1	0	A/5 21171	7.25		S
2	1	1	Cumings, Mrs. John Bradley (Florence Briggs Thayer)	female	38	1	0	PC 17599	71.2833	C85	C
3	1	3	Heikkinen, Miss. Laina	female	26	0	0	STON/O2.	7.925		S
4	1	1	Futrelle, Mrs. Jacques Heath (Lily May Peel)	female	35	1	0	113803	53.1	C123	S
5	0	3	Allen, Mr. William Henry	male	35	0	0	373450	8.05		S
6	0	3	Moran, Mr. James	male		0	0	330877	8.4583		Q
7	0	1	McCarthy, Mr. Timothy J	male	54	0	0	17463	51.8625	E46	S
8	0	3	Palsson, Master. Gosta Leonard	male	2	3	1	349909	21.075		S
9	1	3	Johnson, Mrs. Oscar W (Elisabeth Vilhelmina Berg)	female	27	0	2	347742	11.1333		S
10	1	2	Nasser, Mrs. Nicholas (Adele Achem)	female	14	1	0	237736	30.0708		C
11	1	3	Sandstrom, Miss. Marguerite Rut	female	4	1	1	PP 9549	16.7	G6	S
12	1	1	Bonnell, Miss. Elizabeth	female	58	0	0	113783	26.55	C103	S
13	0	3	Saundercock, Mr. William Henry	male	20	0	0	A/5. 2151	8.05		S
14	0	3	Andersson, Mr. Anders Johan	male	39	1	5	347082	31.275		S
15	0	3	Vestrom, Miss. Hulda Amanda Adolfina	female	14	0	0	350406	7.8542		S
16	1	2	Hewlett, Mrs. (Mary D Kingcome)	female	55	0	0	248706	16		S
17	0	3	Rice, Master. Eugene	male	2	4	1	382652	29.125		Q
18	1	2	Williams, Mr. Charles Eugene	male		0	0	244373	13		S
19	0	3	Vander Planke, Mrs. Julius (Emelia Maria Vandemoortele)	female	31	1	0	345763	18		S
20	1	3	Masselmani, Mrs. Fatima	female		0	0	2649	7.225		C
21	0	2	Fynney, Mr. Joseph J	male	35	0	0	239865	26		S
22	1	2	Beesley, Mr. Lawrence	male	34	0	0	248698	13	D56	S
23	1	3	McGowan, Miss. Anna "Annie"	female	15	0	0	330923	8.0292		Q
24	1	1	Sloper, Mr. William Thompson	male	28	0	0	113788	35.5	A6	S
25	0	3	Palsson, Miss. Torborg Danira	female	8	3	1	349909	21.075		S
26	1	3	Asplund, Mrs. Carl Oscar (Selma Augusta Emilia Johansson)	female	38	1	5	347077	31.3875		S
27	0	3	Emir, Mr. Farred Chehab	male		0	0	2631	7.225		C
28	0	1	Fortune, Mr. Charles Alexander	male	19	3	2	19950	263	C23 C25 C	S
29	1	3	O'Dwyer, Miss. Ellen "Nellie"	female		0	0	330959	7.8792		Q
30	0	3	Todoroff, Mr. Lalio	male		0	0	349216	7.8958		S

Mix and match each data to their convenient chart:

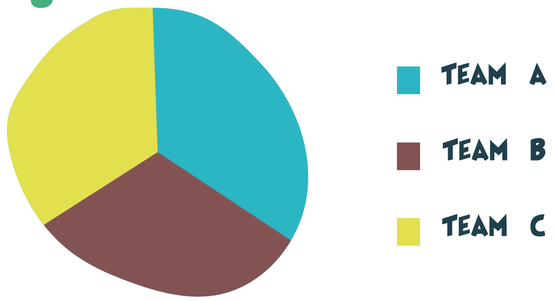
A.

Team A Performance, Team B Performance and Team C Performance



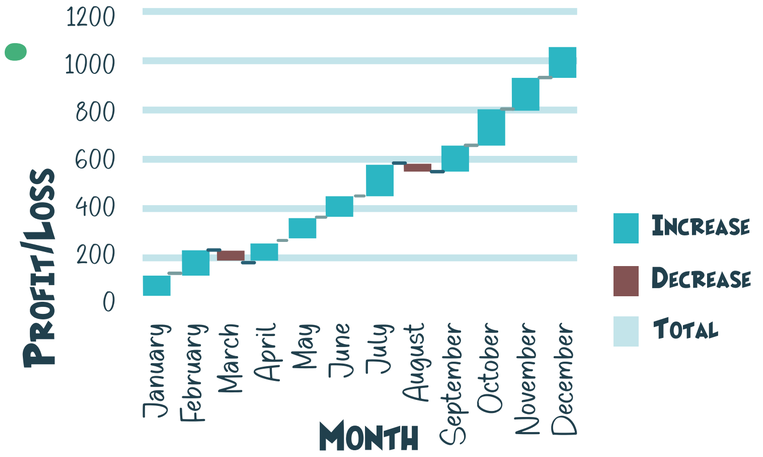
B.

Total Sales



C.

Profit/Loss vs. Month

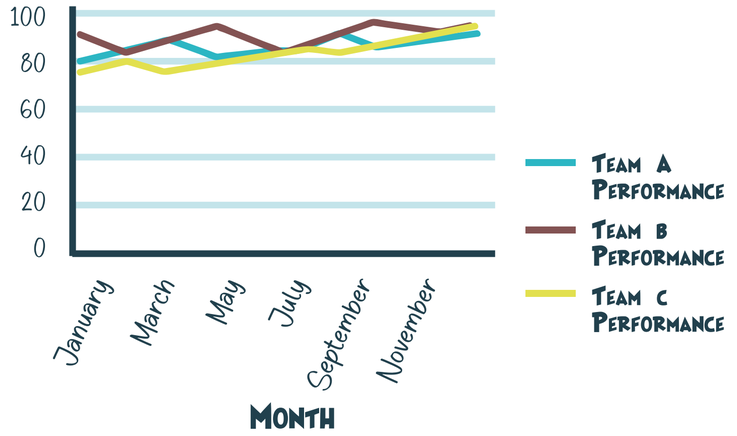


D.

Sales Number vs. Customer Satisfaction Score

E.

Team A Performance, Team B Performance and Team C Performance



Mix and match each data to their convenient chart:

1.

Line Chart: Team Performance Over Time

Month	Team A Performance	Team B Performance	Team C Performance
January	78	85	73
February	82	80	76
March	85	88	74
April	79	91	77
May	83	89	80
June	86	85	82
July	88	87	85
August	90	93	83
September	85	95	86
October	87	92	88
November	89	90	90
December	91	94	92

2.

Scatter Plot: Correlation between Customer Satisfaction ad Sales

Customer Satisfaction Score	Sales Number
70	180
75	200
80	230
85	250
78	220
82	240
88	260
91	280
95	310
90	290
86	270
93	300

3.

Waterfall Chart: Yearly Profit Analysis

Month	Profit/Loss
January	100
February	120
March	-50
April	80
May	110
June	90
July	130
August	-40
September	100
October	150
November	140
December	160

4.

Pie Chart: Share of Total Sales by Each Team for a Year

Teams	Total Sales
Team A	1200
Team B	1150
Team C	1100

5.

Bar Chart: Comparative Team Performance for a Specific Month

Month	Team A Performance	Team B Performance	Team C Performance
January	78	85	73

What chart type would be most suitable? Match each scenario with its corresponding image.

Scenario 1 : Show the distribution of customer ages.

Scenario 2 : Compare sales performance across different regions.

Scenario 3: Track the monthly stock price fluctuations of a company.

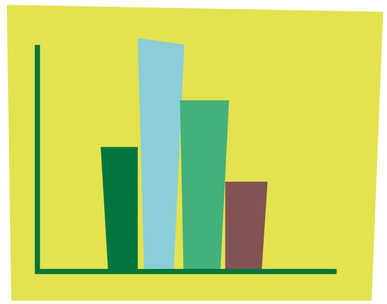
Scenario 4: Display the market share of various smartphone brands.

Scenario 5: Analyze the trend of website traffic over a year.

Scenario 6 : Compare the performance of multiple employees in terms of sales revenue.

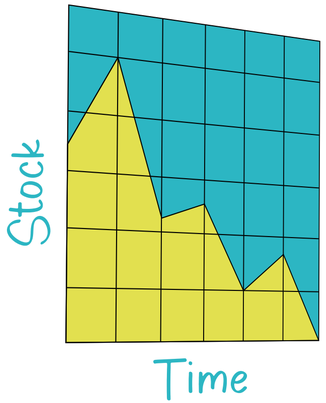
Scenario 7: Visualize the distribution of scores in a class.

Scenario 8: Present the breakdown of expenses in a budget.



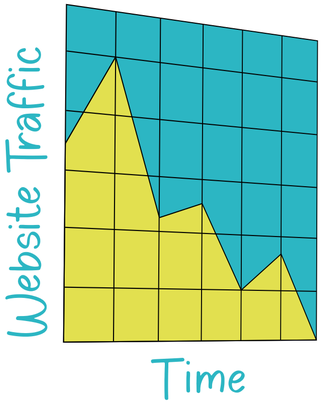
Histogram

Clustered bar chart



Line chart with time on the x-axis and stock prices on the y-axis

Pie chart (for multiple time periods)



Line chart with time on the x-axis and website traffic on the y-axis

Dot chart

Violin plot

Donut chart

Pair each employee with their corresponding symbols:

1. Data Integration

2. Data Quality Manager

3. Data Governance Specialist

4. Data Storyteller

5. Data Architect

Pair each employee with their corresponding symbols: