

# How to choose the Right Chart for Data Visualization

## Overview

- What is Data Visualization
- How to choose the right chart for your data visualization

By the end of this article, you will learn “How to choose the right chart for data visualization”

## Introduction

I love data visualization. The complete amount of knowledge it conveys to the audience in such a limited space is astonishing. It is so easy to broadcast your message to your audience using data visualization. It allows the audience to grasp the insights in the fastest and easiest way. I've worked with many data visualizing tools such as Power BI, Tableau, and MS Excel. These are the brilliant tool to perform data cleaning, data preprocessing, and data visualization in many analytics projects. There are many varieties of graphs that are present in these tools such as Bar graphs, Line charts, scatter plots, Dual-axis charts, Sparklines charts, Waterfall charts, Pie charts, Area charts, Column charts are many more. In this article, I want to answer the eternal question of “How do you decide which chart to choose for your problem or your project?” It can be very overwhelming if you are new to this kind of thing, and choosing the right chart is very important.

If you are new to the data visualization field and excited to learn more, make sure you check out the FREE “[MS Excel](#)” and “[Tableau](#)” courses. You will learn the basic functionalities and how to create different charts. It's a perfect starting point.

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### Importance of Data Visualization

Data Visualization is a graphical representation of data and plays a vital role in understanding information in a better way. It is a way to represent data in visual content.

Look at the data that is displayed below:

Row ID	Order ID	Order Date	Ship Date	Ship Mode	Customer ID	Customer N Segment	Country/Re City	State	Postal Code Region	Product ID	Category	Sub-Category	Product Name	Sales	Quantity	Discount	Profit
1	CA-2018-152156	08-11-2018	11-11-2018	Second Cla	CG-12520	Claire Gute Consumer	United Stah Henderson	Kentucky	42420 South	FUR-B0-10 Furniture	Bookcases	Bush Some	261.96	2	0	0	41.9136
2	CA-2018-152156	08-11-2018	11-11-2018	Second Cla	CG-12520	Claire Gute Consumer	United Stah Henderson	Kentucky	42420 South	FUR-CH-10 Furniture	Chairs	Hon Deluxe	731.94	3	0	0	219.582
3	CA-2018-138688	12-06-2018	16-06-2018	Second Cla	DV-13045	Darrin Van I Corporate	United Stah Los Angeles	California	90036 West	OFF-LA-10 Office Supp	Labels	Self-Adhesir	14.62	2	0	0	6.8714
4	US-2017-108966	11-10-2017	18-10-2017	Standard CI	SO-20335	Sean O'Dor Consumer	United Stah Fort Lauderdale	Florida	33311 South	FUR-TA-10 Furniture	Tables	Bretford CR	957.5775	5	0.45	0	-383.031
5	US-2017-108966	11-10-2017	18-10-2017	Standard CI	SO-20335	Sean O'Dor Consumer	United Stah Fort Lauderdale	Florida	33311 South	OFF-ST-10 Office Supp	Storage	Eldon Fold	22.368	2	0.2	0	2.5164
6	CA-2016-115812	09-06-2016	14-06-2016	Standard CI	BH-11710	Brosina Hof Consumer	United Stah Los Angeles	California	90032 West	FUR-FU-10 Furniture	Furnishings	Eldon Expre	48.86	7	0	0	14.1694
7	CA-2016-115812	09-06-2016	14-06-2016	Standard CI	BH-11710	Brosina Hof Consumer	United Stah Los Angeles	California	90032 West	OFF-AR-10 Office Supp	Art	Newell 322	7.28	4	0	0	1.9656
8	CA-2016-115812	09-06-2016	14-06-2016	Standard CI	BH-11710	Brosina Hof Consumer	United Stah Los Angeles	California	90032 West	TEC-PH-10 Technology	Phones	Mitel 5320 I	907.152	6	0.2	0	90.7152
9	CA-2016-115812	09-06-2016	14-06-2016	Standard CI	BH-11710	Brosina Hof Consumer	United Stah Los Angeles	California	90032 West	OFF-BI-100 Office Supp	Binders	DXL Angle	18.504	3	0.2	0	5.7825
10	CA-2016-115812	09-06-2016	14-06-2016	Standard CI	BH-11710	Brosina Hof Consumer	United Stah Los Angeles	California	90032 West	OFF-AP-10 Office Supp	Appliances	Belkin F5C	114.9	5	0	0	34.47
11	CA-2016-115812	09-06-2016	14-06-2016	Standard CI	BH-11710	Brosina Hof Consumer	United Stah Los Angeles	California	90032 West	FUR-TA-10 Furniture	Tables	Chromcraft	1706.184	9	0.2	0	85.3092
12	CA-2016-115812	09-06-2016	14-06-2016	Standard CI	BH-11710	Brosina Hof Consumer	United Stah Los Angeles	California	90032 West	TEC-PH-10 Technology	Phones	Konitel 250	911.424	4	0.2	0	68.3568
13	CA-2019-114412	15-04-2019	20-04-2019	Standard C	IAA-10480	Andrew Alle Consumer	United Stah Concord	North Caroli	28027 South	OFF-PA-10 Office Supp	Paper	Xerox 1967	15.552	3	0.2	0	5.4432
14	CA-2018-161389	05-12-2018	10-12-2018	Standard CI	IM-15070	Irene Madd Consumer	United Stah Seattle	Washington	98103 West	OFF-BI-100 Office Supp	Binders	Fellowes PE	407.976	3	0.2	0	132.5922
15	US-2017-118983	22-11-2017	26-11-2017	Standard CI	HP-14815	Harold Paw Home Office	United Stah Fort Worth	Texas	76106 Central	OFF-AP-10 Office Supp	Appliances	Holmes Ref	68.81	5	0.8	0	-123.858
16	US-2017-118983	22-11-2017	26-11-2017	Standard CI	HP-14815	Harold Paw Home Office	United Stah Fort Worth	Texas	76106 Central	OFF-BI-100 Office Supp	Binders	Storex Dure	2.544	3	0.8	0	-3.816
17	CA-2016-105893	11-11-2016	18-11-2016	Standard CI	PK-19075	Pete Kriz Consumer	United Stah Madison	Wisconsin	53711 Central	OFF-ST-10 Office Supp	Storage	Star-D Stor	665.88	6	0	0	13.3176
18	CA-2016-167164	13-05-2016	15-05-2016	Second Cla	AG-10270	Alejandro G Consumer	United Stah West Jorda	Utah	84084 West	OFF-ST-10 Office Supp	Storage	Fellowes S	55.5	2	0	0	9.99
19	CA-2016-143336	27-08-2016	01-09-2016	Second Cla	ZD-21925	Zuschuss C Consumer	United Stah San Franci	California	94109 West	OFF-AR-10 Office Supp	Art	Newell 341	8.56	2	0	0	2.4824
20	CA-2016-143336	27-08-2016	01-09-2016	Second Cla	ZD-21925	Zuschuss C Consumer	United Stah San Franci	California	94109 West	TEC-PH-10 Technology	Phones	Cisco SPA	213.48	3	0.2	0	16.011
21	CA-2016-143336	27-08-2016	01-09-2016	Second Cla	ZD-21925	Zuschuss C Consumer	United Stah San Franci	California	94109 West	OFF-BI-100 Office Supp	Binders	Wilson Jone	22.72	4	0.2	0	7.384
22	CA-2018-137330	09-12-2018	13-12-2018	Standard CI	KB-16595	Ken Black Corporate	United Stah Fremont	Nebraska	68025 Central	OFF-AR-10 Office Supp	Art	Newell 318	19.46	7	0	0	5.0596
23	CA-2018-137330	09-12-2018	13-12-2018	Standard CI	KB-16595	Ken Black Corporate	United Stah Fremont	Nebraska	68025 Central	OFF-AP-10 Office Supp	Appliances	Acco Six-O	60.34	7	0	0	15.6884
24	US-2019-156909	16-07-2019	18-07-2019	Second Cla	SF-20065	Sandra Flar Consumer	United Stah Philadelphia	Pennsylvania	19140 East	FUR-CH-10 Furniture	Chairs	Global Delu	71.372	2	0.3	0	-1.0196
25	CA-2017-106320	25-09-2017	30-09-2017	Standard C	EB-13870	Emily Burns Consumer	United Stah Orem	Utah	84057 West	FUR-TA-10 Furniture	Tables	Bretford CR	1044.63	3	0	0	240.2649
26	CA-2018-121755	16-01-2018	20-01-2018	Second Cla	EH-13945	Eric Hoffma Consumer	United Stah Los Angeles	California	90049 West	OFF-BI-100 Office Supp	Binders	Wilson Jone	11.648	2	0.2	0	4.2224
27	CA-2018-121755	16-01-2018	20-01-2018	Second Cla	EH-13945	Eric Hoffma Consumer	United Stah Los Angeles	California	90049 West	TEC-AC-10 Technology	Accessories	Imation 8GE	90.57	3	0	0	11.7741
28	US-2017-150630	17-09-2017	21-09-2017	Standard CI	TB-21520	Tracy Blum Consumer	United Stah Philadelphia	Pennsylvania	19140 East	FUR-B0-10 Furniture	Bookcases	Riverside P	3083.43	7	0.5	0	-1665.052
29	US-2017-150630	17-09-2017	21-09-2017	Standard CI	TB-21520	Tracy Blum Consumer	United Stah Philadelphia	Pennsylvania	19140 East	OFF-BI-100 Office Supp	Binders	Avery Recy	9.618	2	0.7	0	-7.0532
30	US-2017-150630	17-09-2017	21-09-2017	Standard CI	TB-21520	Tracy Blum Consumer	United Stah Philadelphia	Pennsylvania	19140 East	FUR-FU-10 Furniture	Furnishings	Howard Mill	124.2	3	0.2	0	15.525
31	US-2017-150630	17-09-2017	21-09-2017	Standard CI	TB-21520	Tracy Blum Consumer	United Stah Philadelphia	Pennsylvania	19140 East	OFF-EN-10 Office Supp	Envelopes	Poly String	3.264	2	0.2	0	1.1016
32	US-2017-150630	17-09-2017	21-09-2017	Standard CI	TB-21520	Tracy Blum Consumer	United Stah Philadelphia	Pennsylvania	19140 East	OFF-AR-10 Office Supp	Art	BOSTON M	86.304	6	0.2	0	9.7092
33	US-2017-150630	17-09-2017	21-09-2017	Standard CI	TB-21520	Tracy Blum Consumer	United Stah Philadelphia	Pennsylvania	19140 East	OFF-BI-100 Office Supp	Binders	Acco Press	6.858	6	0.7	0	-5.715
34	US-2017-150630	17-09-2017	21-09-2017	Standard CI	TB-21520	Tracy Blum Consumer	United Stah Philadelphia	Pennsylvania	19140 East	OFF-AR-10 Office Supp	Art	Lumber Cria	15.76	2	0.2	0	3.546
35	CA-2019-107727	19-10-2019	23-10-2019	Second Cla	MA-17560	Matt Abelm Home Office	United Stah Houston	Texas	77095 Central	OFF-PA-10 Office Supp	Paper	Easy-staple	29.472	3	0.2	0	9.9468
16	US-2017-118983	22-11-2017	26-11-2017	Standard CI	HP-14815	Harold Paw Home Office	United Stah Fort Worth	Texas	76106 Central	OFF-BI-100 Office Supp	Binders	Storex Dure	2.544	3	0.8	0	-3.816
17	CA-2016-105893	11-11-2016	18-11-2016	Standard CI	PK-19075	Pete Kriz Consumer	United Stah Madison	Wisconsin	53711 Central	OFF-ST-10 Office Supp	Storage	Star-D Stor	665.88	6	0	0	13.3176
18	CA-2016-167164	13-05-2016	15-05-2016	Second Cla	AG-10270	Alejandro G Consumer	United Stah West Jorda	Utah	84084 West	OFF-ST-10 Office Supp	Storage	Fellowes S	55.5	2	0	0	9.99
19	CA-2016-143336	27-08-2016	01-09-2016	Second Cla	ZD-21925	Zuschuss C Consumer	United Stah San Franci	California	94109 West	OFF-AR-10 Office Supp	Art	Newell 341	8.56	2	0	0	2.4824
20	CA-2016-143336	27-08-2016	01-09-2016	Second Cla	ZD-21925	Zuschuss C Consumer	United Stah San Franci	California	94109 West	TEC-PH-10 Technology	Phones	Cisco SPA	213.48	3	0.2	0	16.011
21	CA-2016-143336	27-08-2016	01-09-2016	Second Cla	ZD-21925	Zuschuss C Consumer	United Stah San Franci	California	94109 West	OFF-BI-100 Office Supp	Binders	Wilson Jone	22.72	4	0.2	0	7.384
22	CA-2018-137330	09-12-2018	13-12-2018	Standard CI	KB-16595	Ken Black Corporate	United Stah Fremont	Nebraska	68025 Central	OFF-AR-10 Office Supp	Art	Newell 318	19.46	7	0	0	5.0596
23	CA-2018-137330	09-12-2018	13-12-2018	Standard CI	KB-16595	Ken Black Corporate	United Stah Fremont	Nebraska	68025 Central	OFF-AP-10 Office Supp	Appliances	Acco Six-O	60.34	7	0	0	15.6884
24	US-2019-156909	16-07-2019	18-07-2019	Second Cla	SF-20065	Sandra Flar Consumer	United Stah Philadelphia	Pennsylvania	19140 East	FUR-CH-10 Furniture	Chairs	Global Delu	71.372	2	0.3	0	-1.0196
25	CA-2017-106320	25-09-2017	30-09-2017	Standard C	EB-13870	Emily Burns Consumer	United Stah Orem	Utah	84057 West	FUR-TA-10 Furniture	Tables	Bretford CR	1044.63	3	0	0	240.2649
26	CA-2018-121755	16-01-2018	20-01-2018	Second Cla	EH-13945	Eric Hoffma Consumer	United Stah Los Angeles	California	90049 West	OFF-BI-100 Office Supp	Binders	Wilson Jone	11.648	2	0.2	0	4.2224
27	CA-2018-121755	16-01-2018	20-01-2018	Second Cla	EH-13945	Eric Hoffma Consumer	United Stah Los Angeles	California	90049 West	TEC-AC-10 Technology	Accessories	Imation 8GE	90.57	3	0	0	11.7741
28	US-2017-150630	17-09-2017	21-09-2017	Standard CI	TB-21520	Tracy Blum Consumer	United Stah Philadelphia	Pennsylvania	19140 East	FUR-B0-10 Furniture	Bookcases	Riverside P	3083.43	7	0.5	0	-1665.052
29	US-2017-150630	17-09-2017	21-09-2017	Standard CI	TB-21520	Tracy Blum Consumer	United Stah Philadelphia	Pennsylvania	19140 East	OFF-BI-100 Office Supp	Binders	Avery Recy	9.618	2	0.7	0	-7.0532
30	US-2017-150630	17-09-2017	21-09-2017	Standard CI	TB-21520	Tracy Blum Consumer	United Stah Philadelphia	Pennsylvania	19140 East	FUR-FU-10 Furniture	Furnishings	Howard Mill	124.2	3	0.2	0	15.525
31	US-2017-150630	17-09-2017	21-09-2017	Standard CI	TB-21520	Tracy Blum Consumer	United Stah Philadelphia	Pennsylvania	19140 East	OFF-EN-10 Office Supp	Envelopes	Poly String	3.264	2	0.2	0	1.1016
32	US-2017-150630	17-09-2017	21-09-2017	Standard CI	TB-21520	Tracy Blum Consumer	United Stah Philadelphia	Pennsylvania	19140 East	OFF-AR-10 Office Supp	Art	BOSTON M	86.304	6	0.2	0	9.7092
33	US-2017-150630	17-09-2017	21-09-2017	Standard CI	TB-21520	Tracy Blum Consumer	United Stah Philadelphia	Pennsylvania	19140 East	OFF-BI-100 Office Supp	Binders	Acco Press	6.858	6	0.7	0	-5.715
34	US-2017-150630	17-09-2017	21-09-2017	Standard CI	TB-21520	Tracy Blum Consumer	United Stah Philadelphia	Pennsylvania	19140 East	OFF-AR-10 Office Supp	Art	Lumber Cria	15.76	2	0.2	0	3.546
35	CA-2019-107727	19-10-2019	23-10-2019	Second Cla	MA-17560	Matt Abelm Home Office	United Stah Houston	Texas	77095 Central	OFF-PA-10 Office Supp	Paper	Easy-staple	29.472	3	0.2	0	9.9468
36	CA-2018-117590	08-12-2018	10-12-2018	First Class	GH-14485	Gene Hale Corporate	United Stah Richardson	Texas	75080 Central	TEC-PH-10 Technology	Phones	GE 30524E	1097.544	7	0.2	0	123.4737
37	CA-2018-117590	08-12-2018	10-12-2018	First Class	GH-14485	Gene Hale Corporate	United Stah Richardson	Texas	75080 Central	FUR-FU-10 Furniture	Furnishings	Electric Del	190.92	5	0.6	0	-147.963