



Bansilal Ramnath Agarwal Charitable Trust's
Vishwakarma Institute of Information Technology
Department of
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Class: SY-B tech

Division: B

Roll No: 272028

Semester: 3rd

Academic Year: 2022-2023

Subject Name & Code: ADUA21206 - Data Visualization

Title of Assignment: Visualization in Tableau

Date of Performance: 14/10/2022

Date of Submission: 24/10/2022

Aim: Visualization in Tableau

Problem Statement: Download data set from Kaggle/Tableau/data world. Create visualizations, stating the questions addressed for each visualization.

1. Bar chart & Line Chart
2. Scatter plot & pie chart
3. Sparkline/Text table/Maps
4. Stacked area chart & Gantt chart
5. Highlight table & heat map

Theory/Writeup:

DV Assignment no: 3

Name: Siddhesh Dilip Khatriar

Roll no: 272028

a. Bar chart:

- i Bar chart are one of the most common data visualization
- ii You can see / use them quickly to compare, data categories, highlight difference, show trends and outliers.
- iii They are also used to show historical high & low at glance.

b. Line chart: →

- i Line chart or line graph connect several distinct data point presenting them as one continuous evaluation.
- ii Use line charts to view trends in data, usually overtime.

c. Scatter plot: →

- i Scatter plot are an effective way to investigate the relationship between different variables, showing good prediction.
- ii They can be used to check the continuity of data flow.

d. PIE chart: →

- i Pie chart are powerful for adding detail to other visualization.
- ii Alone, a pie chart doesn't give the view of comparison between the information that too accurately.

e. Maps: →

- i Map are no brainer for visualizing any kind of location related info.
eg: → Zipcode, country name, etc.
- ii If we have geographic info, associated with our data, then maps are best option for visualization.

F. Gantt chart: →

- i) Gantt chart display a project schedule or show changes in activity overtime.
- ii) Gantt chart show steps that need to be completed before other can begin, along with resources allocation.

G. Stacked Area chart: →

- i) A stacked area chart 'stacks' trend on top of each other to illustrate how a part to whole distribution is changing over time.

H. Highlight table: →

- In Tableau you create a highlight table by placing one or more dimension on the columns shelf and one or more dimension on row shelf.

I. Heat Map: →

- Tableau, heat map is a visualization where marks on view are represented using color.

J. sparkline: →

- A sparkline is a small intense, simple, word sized graphic with typographic resolution. sparkline mean that graphic are no longer cartoonish special occasions with caption and boxes, but rather sparkline graphic can be everywhere a word or number can be.

Detail about the dataset: —

⇒ The name of the dataset is 'Global Superstore Dataset'. The Global Superstore dataset is data from a fictional global retail chain that sell office supplies, furniture and Technology stuff. this data is ~~is~~ downloaded from kaggle Resource Page.

For every visualization: Question addressed and the audience should be mentioned.

1. Bar chart

Question: which market has the lowest sales?

2. Line chart: Ques: In which year, which category has highest sales?

3. Scatter chart: which market has done the highest sales?

4. Pie chart: In which region no. of sales is less?

5. Sparkline chart: Ques: which category has the maximum profit?

6. Map chart: Ques: which state has highest profit?

7. Stacked Area chart: Ques: which region has lowest sales?

8. Gantt chart: Ques: In which year the profit is maximum

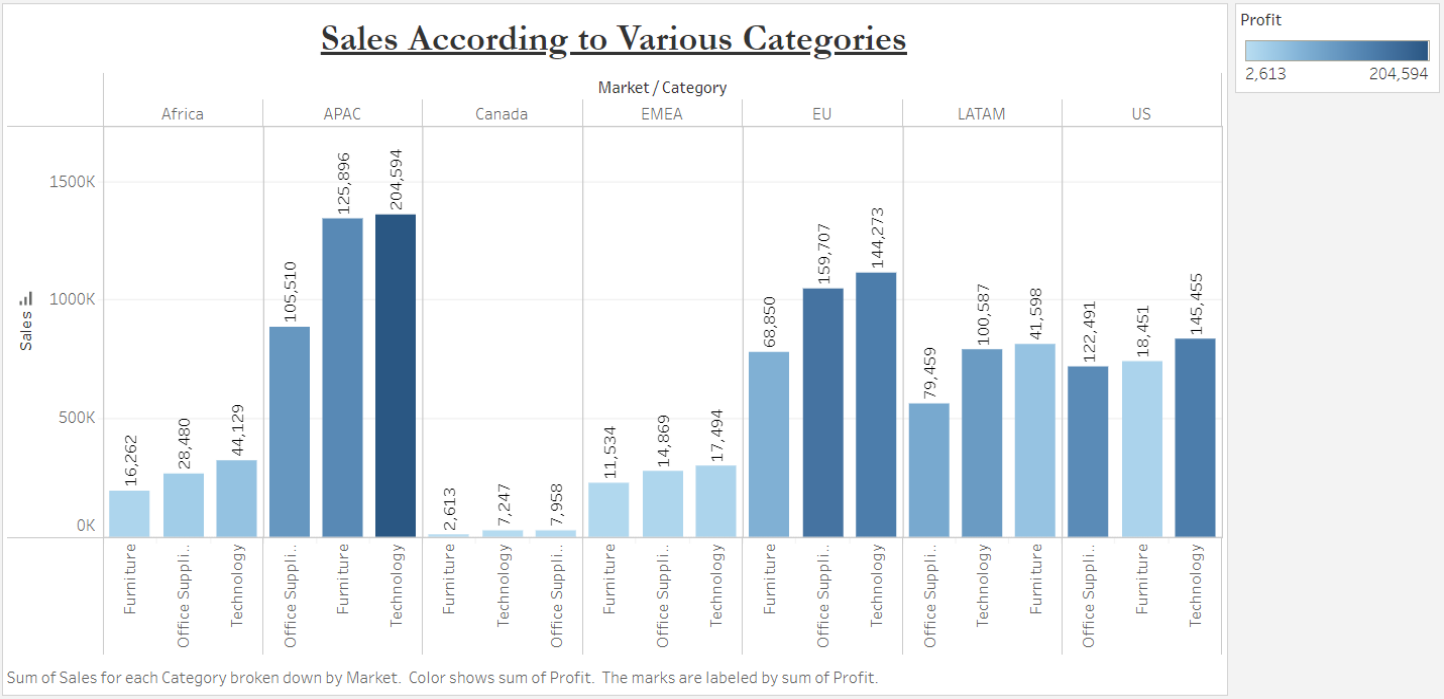
9. Highlight Table: Ques: which segment has lowest discount?

10. Heatmap: Question: which state has the highest sales?

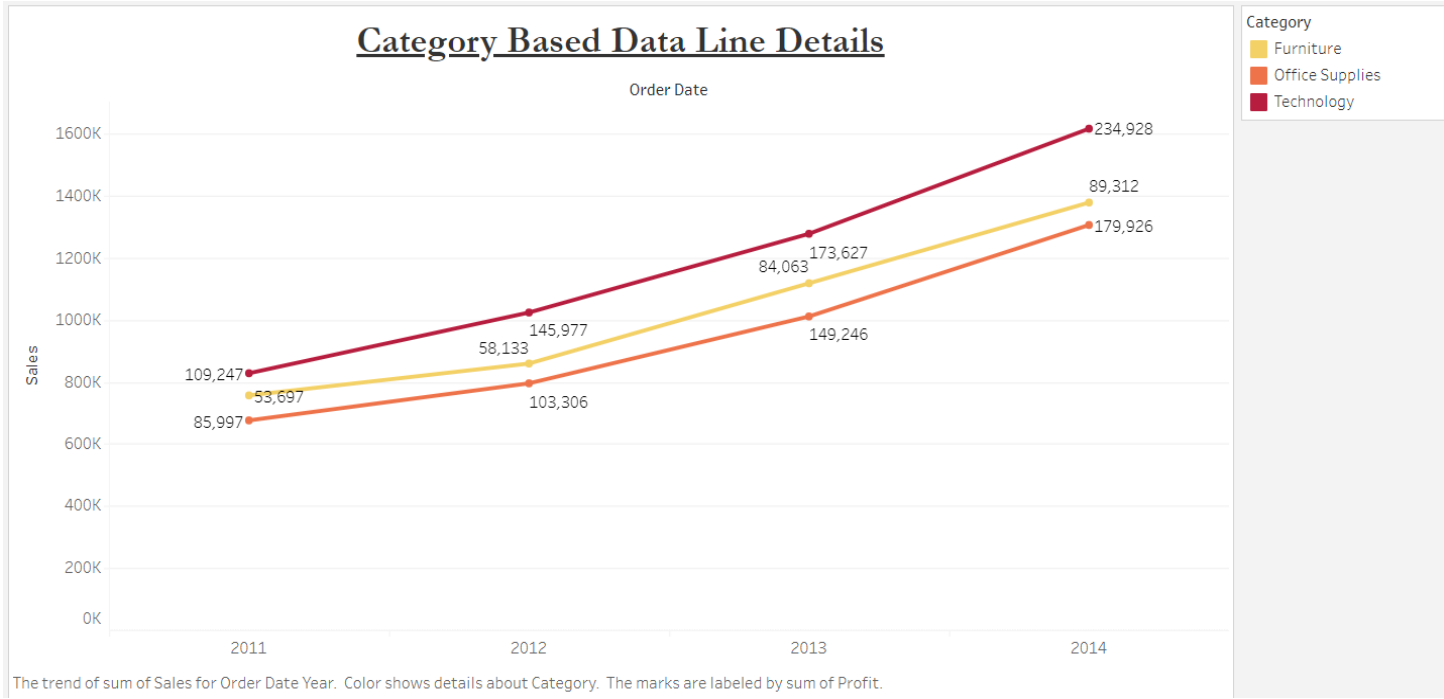
Audience: —

chief Executive officer, chief operation officer, chief financial officer, vice president of sales, Director of IOT marketing Automation Manager

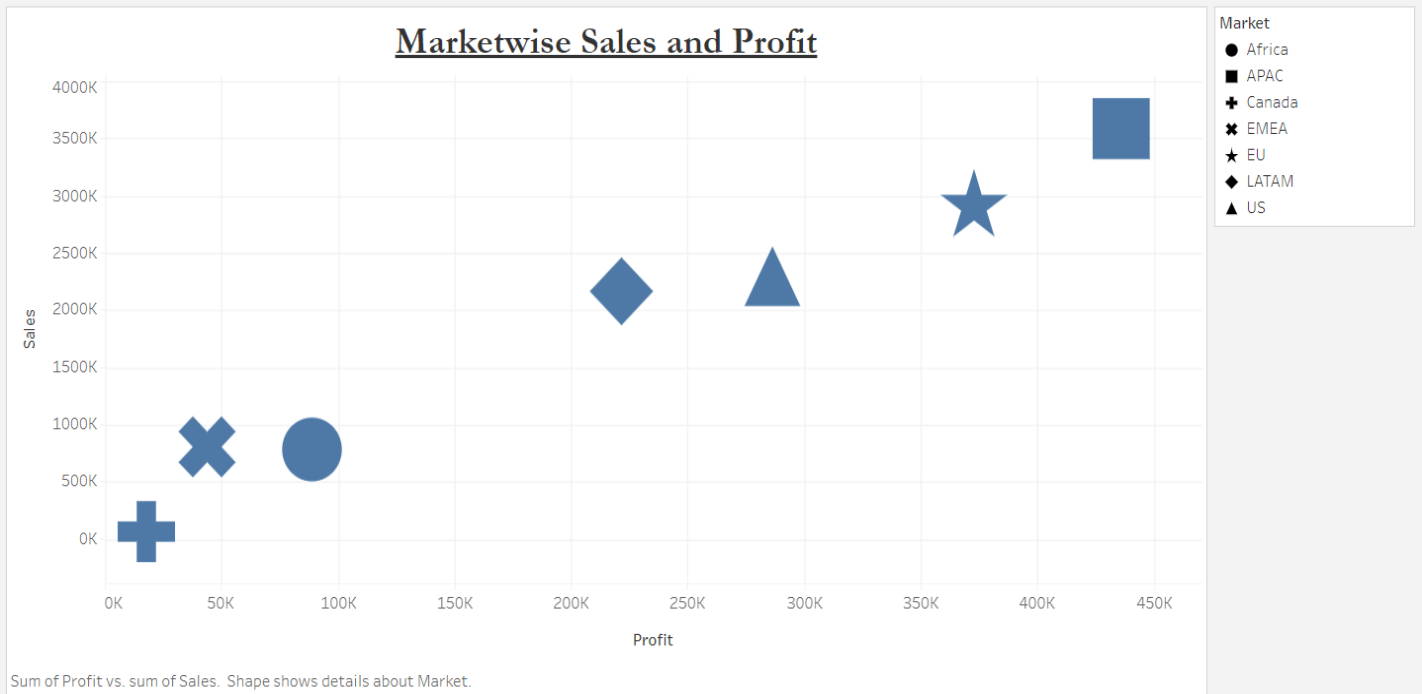
BAR CHART:



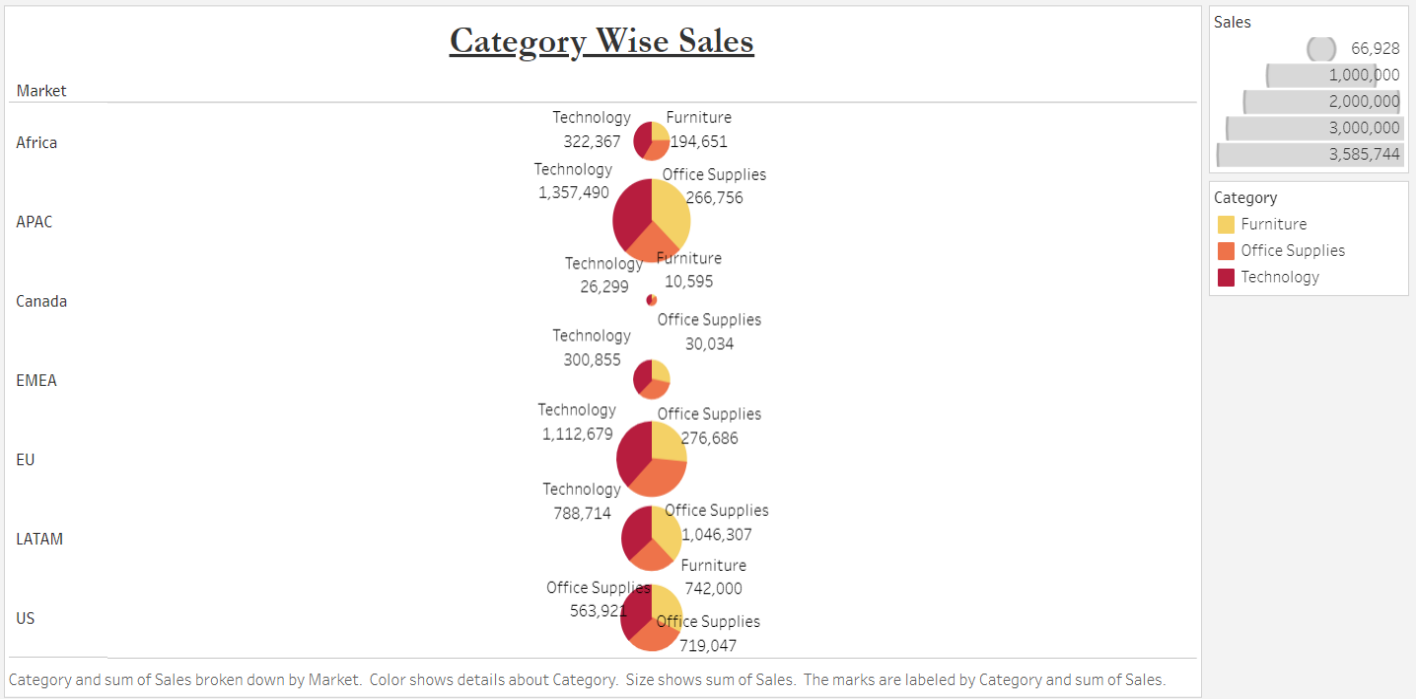
LINE CHART:



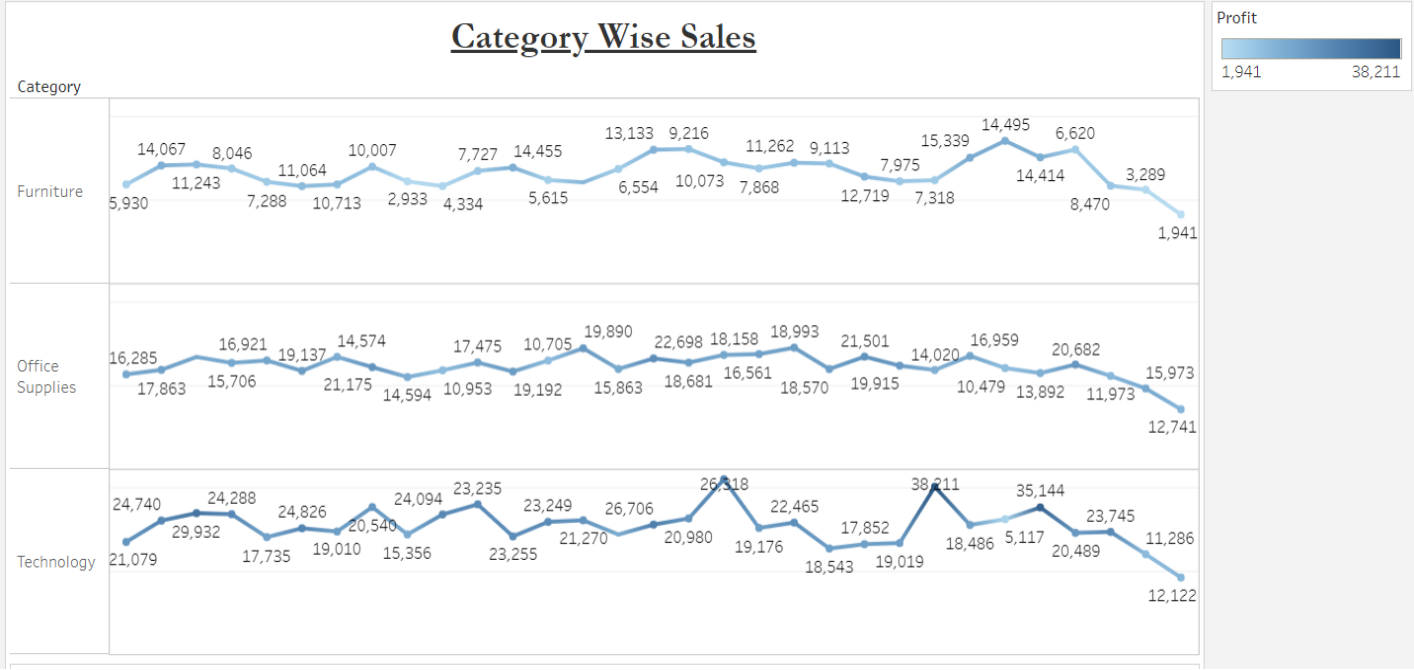
SCATTER CHART:



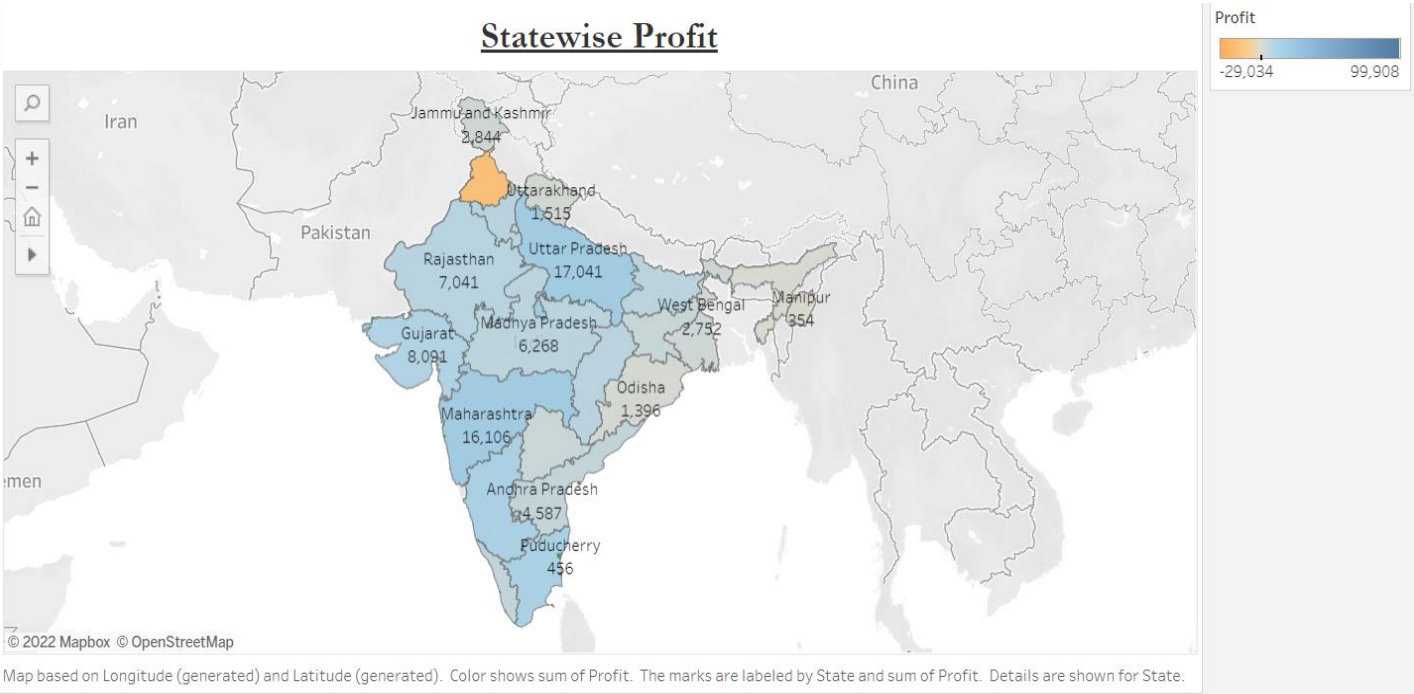
PIE CHART:



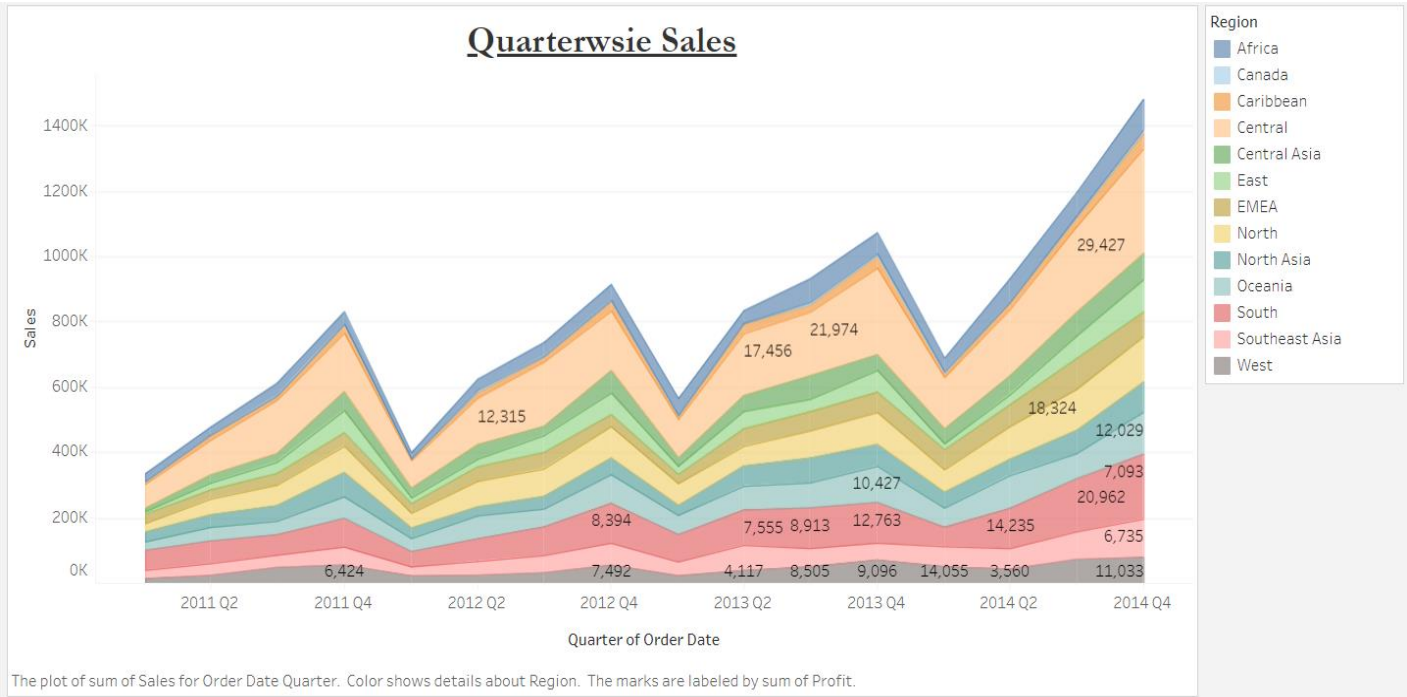
SPARKLINE CHART:



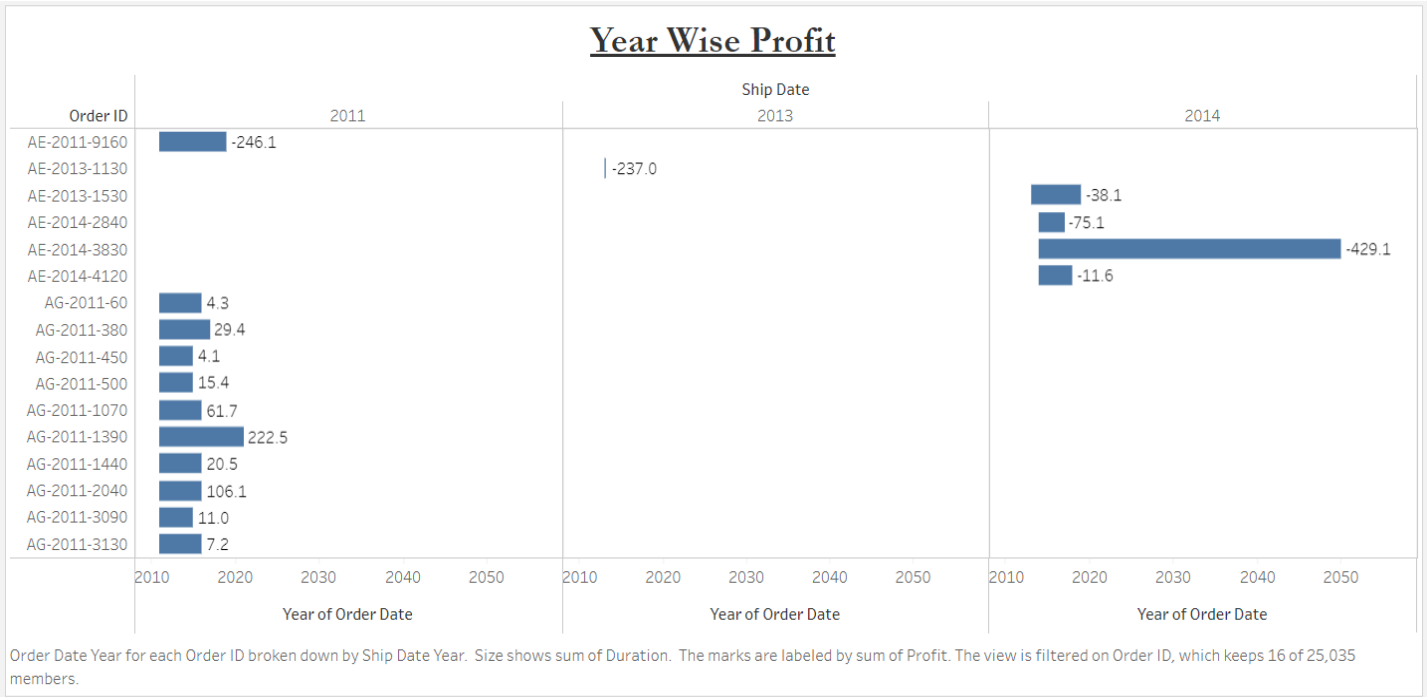
MAP CHART:



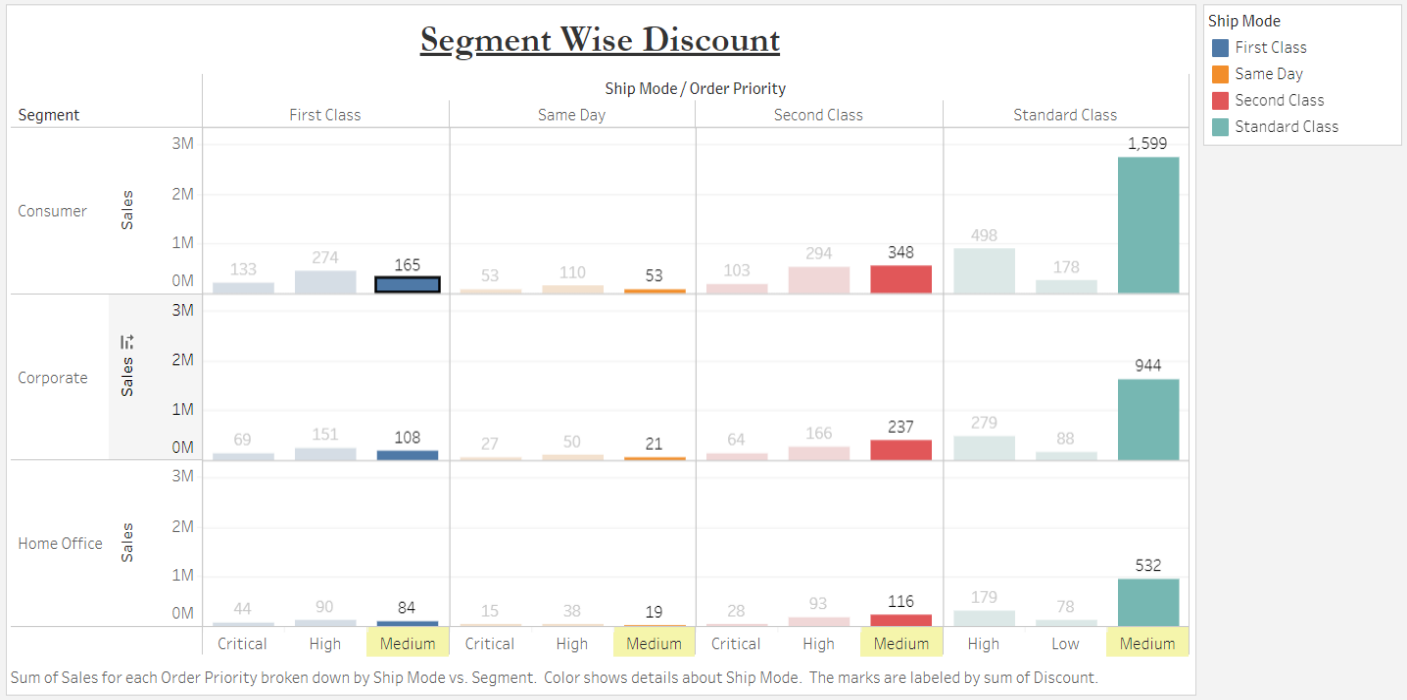
STACKED AREA CHART:



GANTT CHART:



HIGHLIGHT TABLE:



Dataset:

Alt Orders Category	Alt Orders City	Alt Orders Country	Alt Orders Customer ID	Alt Orders Customer Name	Alt Orders Market	Alt Orders Order Da...	Alt Orders Order ID	Alt Orders Order Priority	Alt Orders Postal Code	Alt Orders Product ID	Alt Orders Product Name	Alt Orders Region	Alt Orders Row ID	Alt Orders Segme...	Alt Orders Ship Da...	Alt Orders Ship Mo...	Alt Orders State	Alt Orders Sub-Category	Alt Orders Discount
Technology	New York City	United States	RH-19495	Rick Hansen	US	7/31/2012	CA-2012-124891	Critical	10024	TEC-AC-30003033	Plantronics CS530 - Over-the...	East	32298	Consumer	7/31/2012	Same Day	New York	Accessories	0.000000
Furniture	Wollongong	Australia	JR-16210	Justin Ritter	APAC	2/5/2013	IN-2013-77878	Critical	Null	FUR-CH-30003950	Novimes Executive Leather A...	Oceania	26341	Corporate	2/7/2013	Second Class	New South Wales	Chairs	0.100000
Technology	Brisbane	Australia	CR-12730	Craig Reiter	APAC	10/17/2013	IN-2013-71249	Medium	Null	TEC-PH-30004664	Nokia Smart Phone, with Call...	Oceania	25330	Consumer	10/18/2013	First Class	Queensland	Phones	0.100000
Technology	Berlin	Germany	KM-16375	Katherine Murray	EU	1/28/2013	ES-2013-15793...	Medium	Null	TEC-PH-30004583	Motorola Smart Phone, Cordl...	Central	13524	Home Office	1/30/2013	First Class	Berlin	Phones	0.100000
Technology	Dakar	Senegal	RH-9495	Rick Hansen	Africa	11/5/2013	SG-2013-4320	Critical	Null	TEC-SHA-30000501	Sharp Wireless Fax, High-Spe...	Africa	47221	Consumer	11/6/2013	Same Day	Dakar	Copiers	0.000000
Technology	Sydney	Australia	JM-15655	Jim Mitchum	APAC	6/28/2013	IN-2013-42360	Critical	Null	TEC-PH-30000030	Samsung Smart Phone, with ...	Oceania	22732	Corporate	7/1/2013	Second Class	New South Wales	Phones	0.100000
Furniture	Porirua	New Zealand	TS-21340	Toby Swindell	APAC	11/7/2011	IN-2011-81826	Critical	Null	FUR-CH-30004050	Novimes Executive Leather A...	Oceania	30570	Consumer	11/9/2011	First Class	Wellington	Chairs	0.000000
Furniture	Hamilton	New Zealand	MB-18085	Mick Brown	APAC	4/14/2012	IN-2012-86369	High	Null	FUR-CH-30002958	Chromcraft Conference Tabl...	Oceania	31192	Consumer	4/18/2012	Standard Class	Waikato	Tables	0.000000
Office Supplies	Sacramento	United States	JW-15200	Jane Waco	US	10/14/2014	CA-2014-135909	Low	95823	OFF-BI-30003527	Fellowes PB500 Electric Pui...	West	40155	Corporate	10/21/2014	Standard Class	California	Binders	0.200000
Furniture	Concord	United States	JH-15985	Joseph Holt	US	1/28/2012	CA-2012-136638	Critical	28027	FUR-TA-30000198	Chromcraft Bull-Nose Wood...	South	40936	Consumer	1/31/2012	Second Class	North Carolina	Tables	0.400000
Office Supplies	Alexandria	United States	GM-16595	Greg Maxwell	US	4/5/2011	CA-2011-302988	High	22304	OFF-SU-30002881	Martin Yale Chadless Opener...	South	34577	Corporate	4/9/2011	Second Class	Virginia	Supplies	0.000000
Furniture	Kabul	Afghanistan	AJ-10780	Anthony Jacobs	APAC	4/19/2012	ID-2012-28402	High	Null	FUR-TA-30001889	Bevis Conference Table, Fully...	Central A...	28879	Corporate	4/22/2012	First Class	Kabul	Tables	0.000000
Technology	Jizan	Saudi Arabia	MM-7260	Magdelene Morse	EMEA	12/27/2011	SA-2011-1830	Critical	Null	TEC-CIS-30001717	Cisco Smart Phone, with Call...	EMEA	45794	Corporate	12/29/2011	Second Class	Jizan	Phones	0.000000
Furniture	Toledo	Brazil	VF-21715	Vicky Freymann	LATAM	11/13/2012	MX-2012-130015	Critical	Null	FUR-CH-30002033	Harbour Creations Executive...	South	4132	Home Office	11/13/2012	Same Day	Parana	Chairs	0.000000
Office Supplies	Mudanjiang	China	PF-31920	Peter Fuller	APAC	6/6/2013	IN-2013-73951	Critical	Null	OFF-AP-30003500	KitchenAid Microwave, White	North Asia	27704	Consumer	6/8/2013	Second Class	Heilongjiang	Appliances	0.000000
Office Supplies	Paris	France	BP-11185	Ben Peterman	EU	7/31/2014	ES-2014-5099...	Critical	Null	OFF-AP-30000423	Breville Refrigerator, Red	Central	13779	Corporate	8/3/2014	Second Class	Ile-de-France	Appliances	0.100000
Technology	Henderson	United States	TB-21175	Thomas Boland	US	11/3/2014	CA-2014-143567	Critical	42420	TEC-AC-30004145	Logitech dNovo Edge Keybo...	South	36178	Corporate	11/5/2014	Second Class	Kentucky	Accessories	0.000000
Office Supplies	Prato	Italy	PJ-18325	Patrick Jones	EU	9/8/2014	ES-2014-117764	Low	Null	OFF-AP-30004512	Hoover Stove, Red	South	12069	Corporate	9/14/2014	Standard Class	Tuscany	Appliances	0.000000
Technology	Townsville	Australia	JS-15685	Jim Sink	APAC	1/31/2014	IN-2014-11763	Critical	Null	TEC-CO-30000865	Brother Fax Machine, High-S...	Oceania	22096	Corporate	2/1/2014	First Class	Queensland	Copiers	0.100000
Office Supplies	Uvinza	Tanzania	RH-9555	Rita Hightower	Africa	12/5/2014	TZ-2014-8190	High	Null	OFF-KIT-30004058	KitchenAid Stove, White	Africa	42463	Consumer	12/7/2014	Second Class	Kigoma	Appliances	0.000000
Furniture	Bytom	Poland	AB-600	Ann Blum	EMEA	8/8/2012	PL-2012-7820	Critical	Null	FUR-HOM-300002...	Hon Computer Table, with Bo...	EMEA	46630	Corporate	8/10/2012	First Class	Silesia	Tables	0.000000
Technology	Chicago	United States	SA-20830	Sue Ann Reed	US	10/29/2011	CA-2011-154627	High	60610	TEC-PH-30001363	Apple iPhone 5S	Central	31784	Consumer	10/31/2011	First Class	Illinois	Phones	0.200000
Furniture	Suzhou	China	JK-15325	Jason Klanczynski	APAC	5/2/2011	IN-2011-44803	Critical	Null	FUR-CH-30000027	SAFCO Executive Leather Ar...	North Asia	21586	Corporate	5/3/2011	First Class	Anhui	Chairs	0.000000
Office Supplies	Edinburgh	United King...	LB-16795	Laurel Beltran	EU	2/27/2013	ES-2013-28605...	High	Null	OFF-AP-30003590	KitchenAid Refrigerator, Black	North	13528	Home Office	3/1/2013	Second Class	Scotland	Appliances	0.000000
Technology	Juarez	Mexico	NP-18325	Narej Patel	LATAM	7/31/2014	US-2014-131393	Critical	Null	TEC-PH-30004182	Motorola Smart Phone, Full S...	North	1570	Consumer	8/1/2014	First Class	Chihuahua	Phones	0.000000
Furniture	Soyapango	El Salvador	VD-21670	Valerie Dominguez	LATAM	9/5/2014	MX-2014-165309	Critical	Null	FUR-TA-30002827	Hon Computer Table, Fully As...	Central	3484	Consumer	9/8/2014	First Class	San Salvador	Tables	0.200000
Furniture	Taipei	Taiwan	PB-19210	Phillip Breyer	APAC	12/17/2011	IN-2011-10286	Critical	Null	FUR-TA-30004744	Lesro Conference Table, with...	North Asia	30191	Corporate	12/20/2011	First Class	Taipei City	Tables	0.000000
Office Supplies	Leipzig	Germany	JE-14110	Eugene Barchas	EU	3/14/2011	ES-2011-146997...	Critical	Null	OFF-AP-30004512	Hoover Stove, Red	Central	11645	Consumer	3/17/2011	Second Class	Saxony	Appliances	0.100000
Technology	Los Angeles	United States	KF-16285	Karen Ferguson	US	3/12/2013	CA-2013-159016	High	90008	TEC-PH-30002885	Apple iPhone 5	West	37311	Home Office	3/12/2013	First Class	California	Phones	0.200000
Furniture	Surat	India	BP-11230	Benjamin Patterson	APAC	2/25/2012	IN-2012-44810	Critical	Null	FUR-CH-30003415	Office Star Executive Leather...	Central A...	22999	Consumer	2/25/2012	Same Day	Gujarat	Chairs	0.000000
Technology	Santo Domi...	Dominican...	RR-19525	Rick Reed	LATAM	12/28/2011	US-2012-128776	Critical	Null	TEC-PH-30002815	Samsung Smart Phone, VoIP	Caribbean	220	Corporate	12/30/2011	Second Class	Santo Domingo	Phones	0.200000
Technology	Saint-Briac	France	BS-11365	Bill Shonely	EU	7/17/2012	ES-2012-58702...	Critical	Null	TEC-MA-30000161	Oxkita Inkjet, Wireless	Central	10648	Corporate	7/19/2012	First Class	Brittany	Machines	0.150000
Furniture	Amarillo	United States	JE-15745	Joel Eaton	US	10/15/2012	CA-2012-139721	High	79109	FUR-CH-30002024	HON 5400 Series Task Chair...	Central	32735	Consumer	10/15/2012	Same Day	Texas	Chairs	0.100000
Office Supplies	Gold Coast	Australia	DP-13305	Dave Poirier	APAC	11/3/2011	IN-2011-28087	Critical	Null	OFF-AP-30004246	Breville Stove, Red	Oceania	21286	Corporate	11/5/2011	Second Class	Queensland	Appliances	0.100000
Furniture	Fresno	United States	NP-18700	Nora Preis	US	12/12/2011	CA-2011-168494	High	93727	FUR-CH-30003473	Bretford Rectangular Confer...	West	32543	Consumer	12/14/2011	Second Class	California	Tables	0.200000
Technology	Kamina	Democratic...	AH-30	Aaron Hawkins	Africa	9/14/2011	CG-2011-8630	High	Null	TEC-APP-300003...	Apple Smart Phone, Full Size	Africa	47905	Corporate	9/15/2011	First Class	Katanga	Phones	0.000000
Technology	New York City	United States	DM-13015	Darrin Martin	US	9/14/2011	CA-2011-160766	High	10009	TEC-MA-30003979	Athia V4110WDD Micro-Cut S...	East	36423	Consumer	9/14/2011	Same Day	New York	Machines	0.000000
Technology	Burlington	United States	GT-14635	Grant Thornton	US	11/5/2014	US-2014-168116	High	27217	TEC-MA-30004125	Cutify CubeX 3D Printer Trip...	South	31580	Corporate	11/5/2014	Same Day	North Carolina	Machines	0.500000

Conclusion: Through this assignment, I had learned how to make different types of visualizations and how to do it analysis.

Tableau Public Profile Link:

https://public.tableau.com/app/profile/siddhesh.dilip.khairnar/viz/B_28_SiddheshKhairnar_ASS_3/PIECHART