



Bansilal Ramnath Agarwal Charitable Trust's
Vishwakarma Institute of Information Technology
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Division: B

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Subject Name & Code: ADUA21206 - Data Visualization

Title of Assignment: Density maps

Date of Performance: 12/11/2022

Date of Submission: 28/11/2022

Aim: Create visualization using any downloaded dataset for density map for any geospatial dataset.

Problem Statement: Download data set from Kaggle/Tableau/data world. Create visualization using any downloaded dataset for density map for any geospatial dataset.

Theory/Writeup:

Assignment 8

1 What is density plot

- * A density plot is a representation of the distribution of a numeric variable that uses a kernel density estimate to show the probability density function of the variable. It is smoothed version of the histogram & is used in the same concept.
- * This chart is a variation of histogram that uses kernel smoothing to plot values, allowing for smoother distributions by smoothing out noise.
- * The peaks of a Density Plot help display where values are concentrated over the interval.

2 Uses and applications of density plot

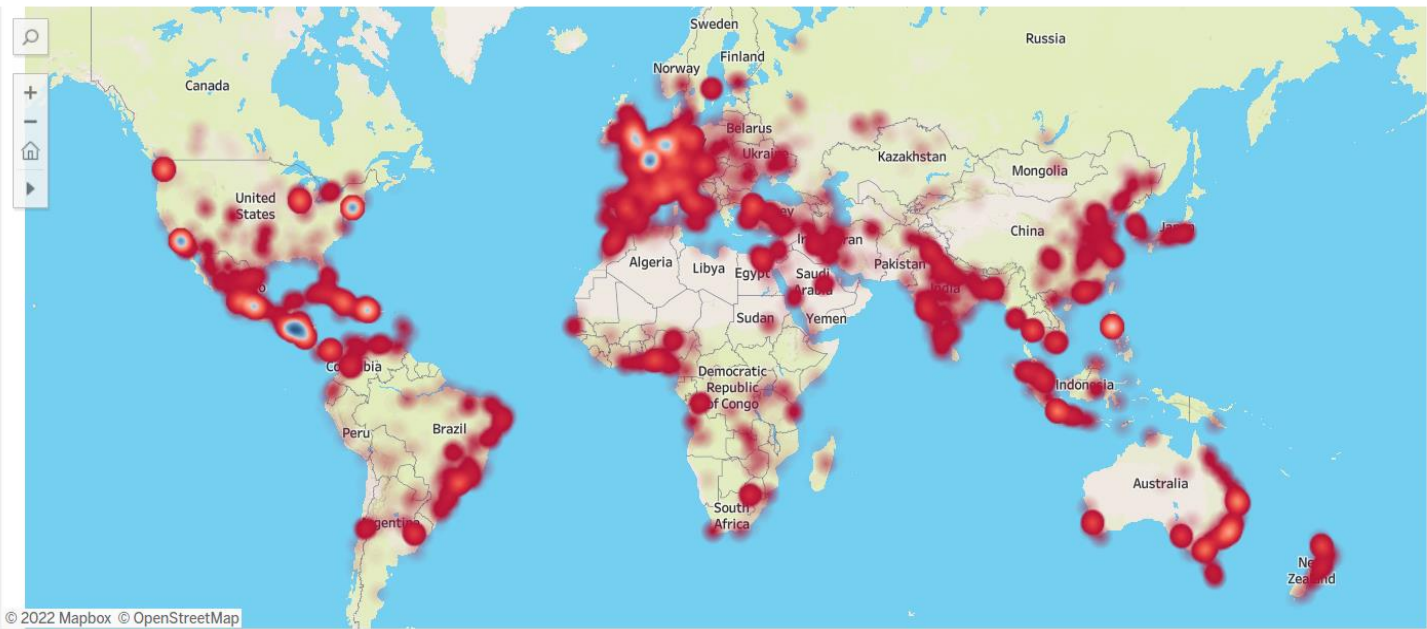
- * Density plots are used to observe the distribution of a variable in a dataset.
- * The peaks of a density plot help display where values are concentrated over the interval
- * An advantage of Density Plots over Histograms is that these they are better at determining the distribution shape because they are not affected by the number of bins.

4 Steps to create viz

- 1) Open tableau
- 2) Add data in microsoft excel
 - 3) Add spatial file Hex states. Set of country as America & connect data
 - 4) Go to worksheet Double click on geometry to see outline of America's map
 - 5) Add sales add country & state through dataset to marks & select it to density.
 - 6) Save the file

Visualization Snapshot:

Country Wise Sales



ABC	🌐	🌐	ABC	ABC	ABC	📅	ABC	ABC	🌐	ABC	A
Orders	Orders	Orders	Orders	Orders	Orders	Orders	Orders	Orders	Orders	Orders	Orders
Category	City	Country	Customer ID	Customer Name	Market	Order Date	Order ID	Order Priority	Postal Code	Product ID	Product Name
Technology	New York City	United States	RH-19495	Rick Hansen	US	7/31/2012	CA-2012-124891	Critical	10024	TEC-AC-10003033	Product A
Furniture	Wollongong	Australia	JR-16210	Justin Ritter	APAC	2/5/2013	IN-2013-77878	Critical	Null	FUR-CH-10003950	Product B
Technology	Brisbane	Australia	CR-12730	Craig Reiter	APAC	10/17/2013	IN-2013-71249	Medium	Null	TEC-PH-10004664	Product C
Technology	Berlin	Germany	KM-16375	Katherine Murray	EU	1/28/2013	ES-2013-1579342	Medium	Null	TEC-PH-10004583	Product D
Technology	Dakar	Senegal	RH-9495	Rick Hansen	Africa	11/5/2013	SG-2013-4320	Critical	Null	TEC-SHA-10000501	Product E
Technology	Sydney	Australia	JM-15655	Jim Mitchum	APAC	6/28/2013	IN-2013-42360	Critical	Null	TEC-PH-10000030	Product F
Furniture	Porirua	New Zealand	TS-21340	Toby Swindell	APAC	11/7/2011	IN-2011-81826	Critical	Null	FUR-CH-10004050	Product G
Furniture	Hamilton	New Zealand	MB-18085	Mick Brown	APAC	4/14/2012	IN-2012-86369	High	Null	FUR-TA-10002958	Product H
Office Supplies	Sacramento	United States	JW-15220	Jane Waco	US	10/14/2014	CA-2014-135909	Low	95823	OFF-BI-10003527	Product I
Furniture	Concord	United States	JH-15985	Joseph Holt	US	1/28/2012	CA-2012-116638	Critical	28027	FUR-TA-10000198	Product J
Office Supplies	Alexandria	United States	GM-14695	Greg Maxwell	US	4/5/2011	CA-2011-102988	High	22304	OFF-SU-10002881	Product K
Furniture	Kabul	Afghanistan	AJ-10780	Anthony Jacobs	APAC	4/19/2012	ID-2012-28402	High	Null	FUR-TA-10001889	Product L
Technology	Jizan	Saudi Arabia	MM-7260	Magdelene Morse	EMEA	12/27/2011	SA-2011-1830	Critical	Null	TEC-CIS-10001717	Product M
Furniture	Toledo	Brazil	VF-21715	Vicky Freymann	LATAM	11/13/2012	MX-2012-130015	Critical	Null	FUR-CH-10002033	Product N
Office Supplies	Mudanjiang	China	PF-19120	Peter Fuller	APAC	6/6/2013	IN-2013-73951	Critical	Null	OFF-AP-10003500	Product O
Office Supplies	Paris	France	BP-11185	Ben Peterman	EU	7/31/2014	ES-2014-50999...	Critical	Null	OFF-AP-10000423	Product P
Technology	Henderson	United States	TB-21175	Thomas Boland	US	11/3/2014	CA-2014-143567	Critical	42420	TEC-AC-10004145	Product Q
Office Supplies	Prato	Italy	PJ-18835	Patrick Jones	EU	9/8/2014	ES-2014-1651774	Low	Null	OFF-AP-10004512	Product R
Technology	Townsville	Australia	JS-15685	Jim Sink	APAC	1/31/2014	IN-2014-11763	Critical	Null	TEC-CO-10000865	Product S

Tableau Public Profile Link:

[https://public.tableau.com/authoring/B_28_SiddheshKha
irnar_DV_ASS8/Sheet7#2](https://public.tableau.com/authoring/B_28_SiddheshKha
irnar_DV_ASS8/Sheet7#2)