

INDUSTRY DYNAMICS TECHNOLOGY (DATA VISUALIZATIONS) LAB

(Course Code: 23UPCSC1L03)

A laboratory record submitted to Periyar University, Salem

In partial fulfillment of the requirements for the degree of

MASTER OF COMPUTER APPLICATIONS

By

DHANUSH D

[Reg. No: U24PG507CAP002]



DEPARTMENT OF COMPUTER SCIENCE

PERIYAR UNIVERSITY

(NACC `A++` Grade with CGPA 3.61) – NIRF RANK 56 – ARIIA RANK 10

PERIYAR PALKALAI NAGAR,

SALEM – 636 011.

(OCTOBER - 2024)

CERTIFICATE

This is to certify that the Programming Laboratory entitled “**INDUSTRY DYNAMICS TECHNOLOGY (DATA VISUALIZATIONS) LAB (23UPCSC1L03)**” is a bonafide record work done by Mr. /Ms. _____ Register No:_____ in partial fulfillment of the requirements for the degree of Master of Computer Applications , in the Department of Computer Science, Periyar University, Salem, during the Academic Year 2024-2025.

Staff In-charge

Head of the Department

Submitted for the practical examination held on.....

Internal Examiner

External Examiner

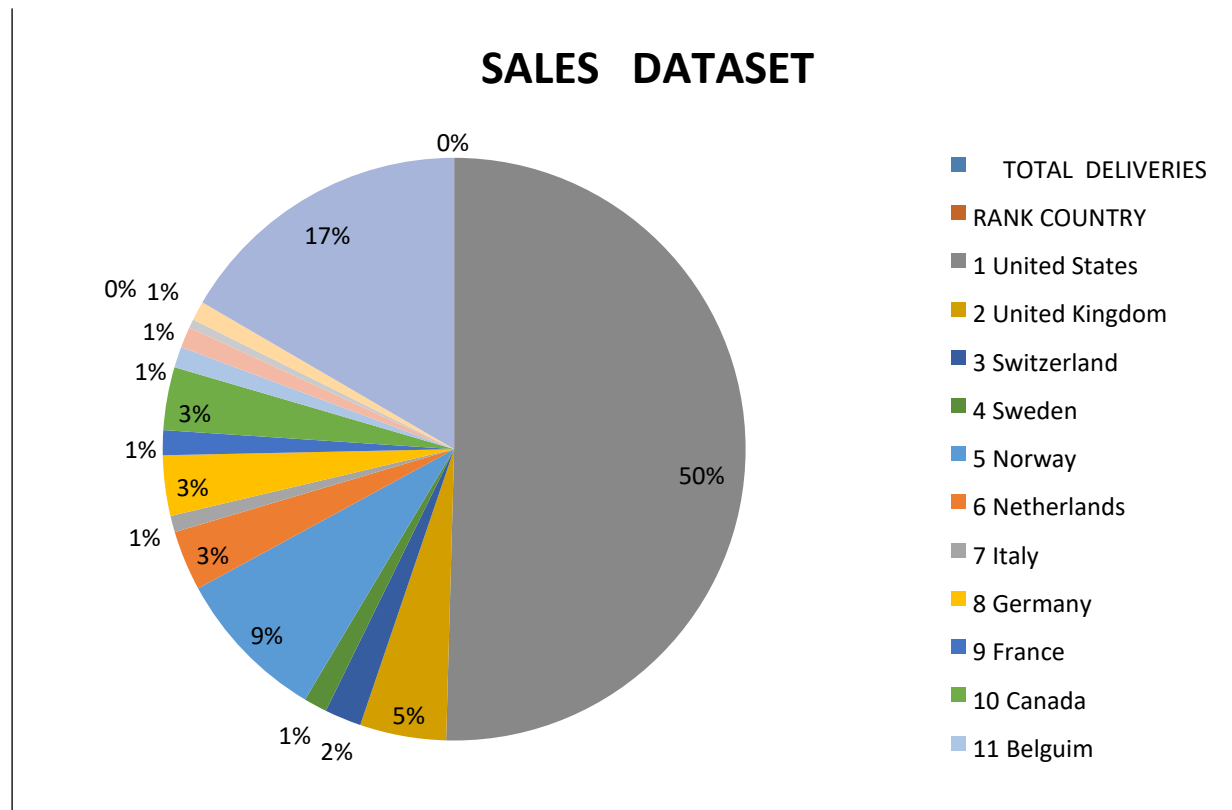
CONTENTS

S.NO	DATE	TITLE OF THE PROGRAM	PAGE NO	SIGNATURE
1.		PIE CHART FOR SALES AND SALES (%) BY COUNTRY		
2.		BAR CHART FOR SALES AND COUNTRY BY YEAR		
3.		LINE CHART FOR SALES BY SHIP MODE		
4.		SCATTER CHART FOR SALES BY SHIP MODE BY COUNTRY		
5.		HEAT MAP FOR SALES BY CATEGORY BY SUB CATEGORY		
6.		DESIGN AND CREATE THE LABEL FOR VENDOR LIST		
7.		DESIGN AND CREATE THE DASHBOARD		
8.		SALES BY SHIP MODE USING TABLEAU		
9.		SALES BY SHIP MODE BY COUNTRY USING TABLEAU		
10.		SALES BY CATEGORY BY SUB- CATEGORY		

SOURCE CODE:

SALES DATASET				
TOTAL DELIVERIES			1,03,184	
RANK	COUNTRY	SALES	SALES (%)	CUMMULATIVE
1	United States	\$50,145.00	49%	49%
2	United Kingdom	\$4,756.00	4.60%	77%
3	Switzerland	\$2,024.00	2.00%	89%
4	Sweden	\$1,283.00	1.20%	91.80%
5	Norway	\$8,473.00	8%	72.80%
6	Netherlands	\$3,316.00	3.20%	87%
7	Italy	\$905.00	0.90%	96%
8	Germany	\$3,331.00	3.20%	84%
9	France	\$1,368.00	1.30%	90.50%
10	Canada	\$3,478.00	3.40%	80.80%
11	Belgium	\$1,151.00	1.10%	95.00%
12	Belgium	\$1,151.00	1.10%	92.90%
13	Austria	\$ 480.00	0.50%	95.50%
14	Australia	\$1,060.00	1%	93.90%
15	China	\$16,500.00	16.00%	64.60%

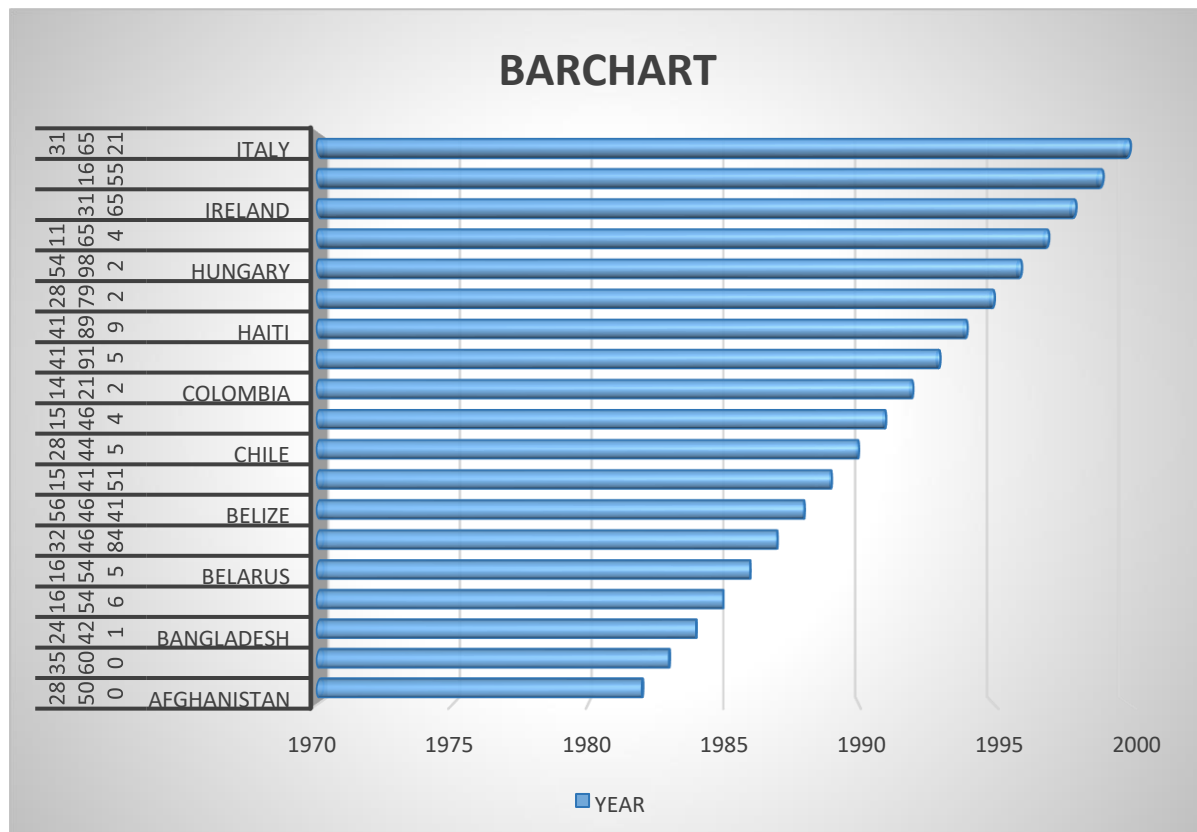
OUTPUT



SOURCE CODE

SALES	COUNTRY	YEAR
28500	Afghanistan	1982
35600	Albania	1983
24421	Bangladesh	1984
16546	Barbados	1985
16545	Belarus	1986
324684	Belgium	1987
564641	Belize	1988
154151	Chad	1989
28445	Chile	1990
15464	China	1991
14212	Colombia	1992
41915	Comoros	1993
41899	Haiti	1994
28792	Honduras	1995
54982	Hungary	1996
11654	Iraq	1997
3165	Ireland	1998
1655	Israel	1999
316521	Italy	2000

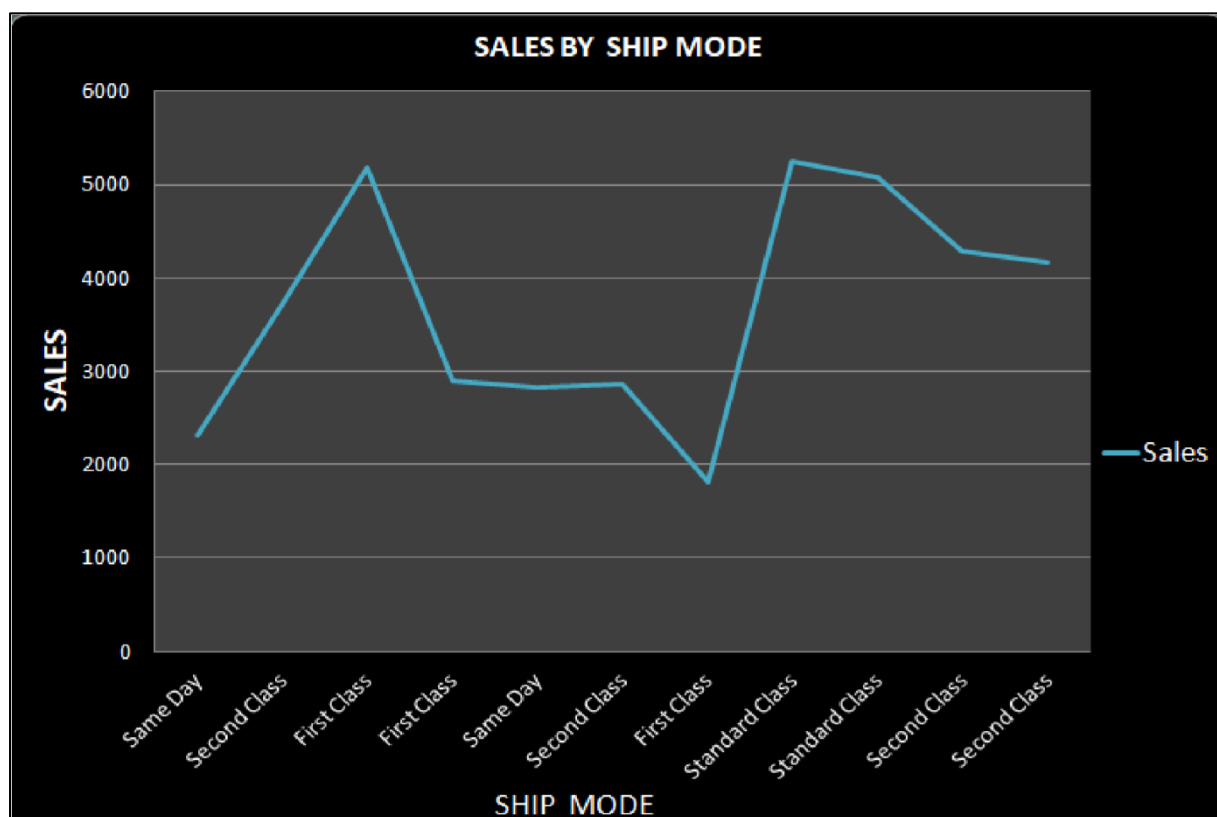
OUTPUT



SOURCE CODE

	A	B	C	D	E
1	Product ID	Order ID	Ship Mode	Country	Sales
2	TEC-AC-10003033	CA-2012-124891	Same Day	United States	2309.65
3	FUR-CH-10003950	IN-2013-77878	Second Class	Australia	3709.395
4	TEC-PH-10004664	IN-2013-71249	First Class	Australia	5175.171
5	TEC-PH-10004583	ES-2013-1579342	First Class	Germany	2892.51
6	TEC-SHA-10000501	SG-2013-4320	Same Day	Senegal	2832.96
7	TEC-PH-10000030	IN-2013-42360	Second Class	Australia	2862.675
8	FUR-CH-10004050	IN-2011-81826	First Class	New Zealand	1822.08
9	FUR-TA-10002958	IN-2012-86369	Standard Class	New Zealand	5244.84
10	OFF-BI-10003527	CA-2014-135909	Standard Class	United States	5083.96
11	FUR-TA-10000198	CA-2012-116638	Second Class	United States	4297.644
12	OFF-SU-10002881	CA-2011-102988	Second Class	United States	4164.05

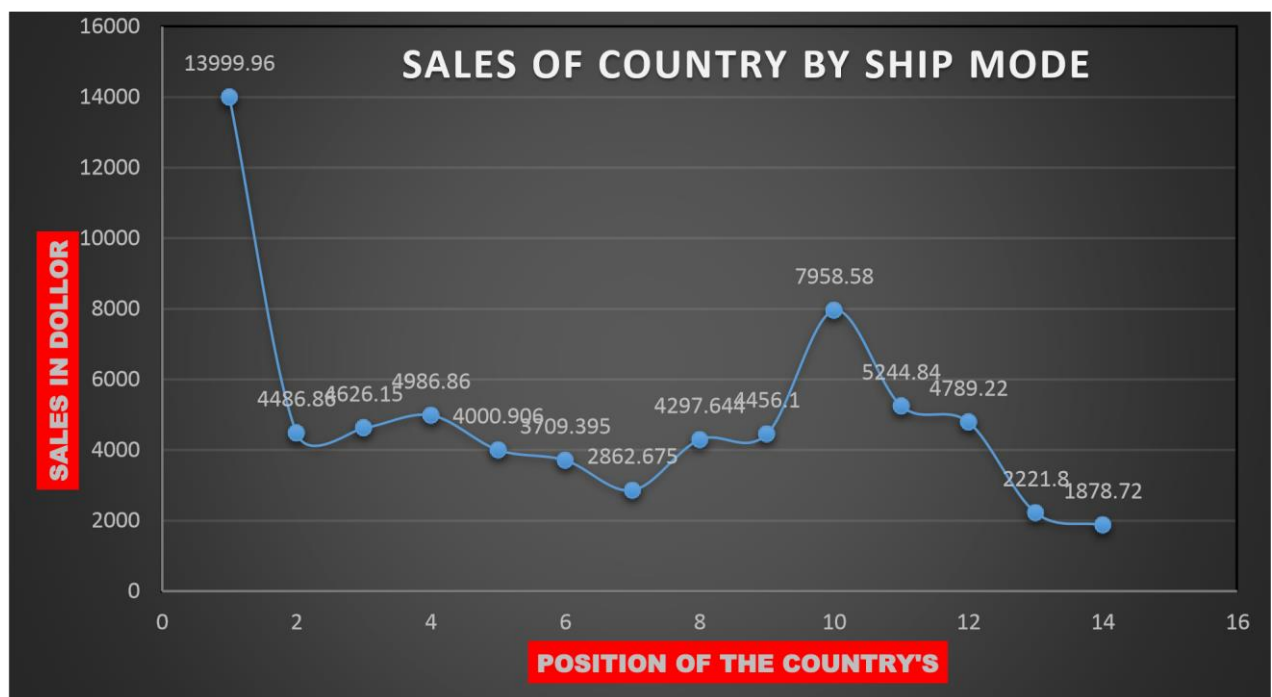
OUTPUT



SOURCE CODE

SHIP MODE	COUNTRY	SALES
First Class	United States	13999.96
First Class	Ukraine	4486.86
First Class	Afghanistan	4626.15
First Class	India	4986.86
First Class	Greenland	4000.906
Second Class	Australia	3709.395
Second Class	Australia	2862.675
Second Class	United States	4297.644
Second Class	United States	4456.1
Standard Class	Italy	7958.58
Standard Class	New Zealand	5244.84
Standard Class	Brazil	4789.22
Same day	Brazil	2221.8
Same day	India	1878.72

OUTPUT



SOURCE CODE

Countries	Vegetables	Fruits	Stationaries	Arts	Furnitures	Oils	Machineries	Spices	Meats	Fashion
China	500	550	300	900	652	700	650	1000	900	200
Japan	200	220	40	600	356	650	556	650	700	150
America	800	1100	752	1557	1065	2225	1168	1250	1500	850
Russia	450	850	655	1025	998	365	987	1550	1650	950
Srilanka	180	125	101	32	132	167	123	100	250	250
England	170	180	300	95	655	653	458	300	150	450
Germany	155	160	215	115	698	559	655	200	125	320
Ukraine	100	80	65	325	99	347	312	150	70	100
South Africa	175	210	325	374	652	987	400	300	99	97
Thailand	90	120	98	600	150	650	300	250	50	50

OUTPUT

[illegible]

SOURCE CODE

sk solution corperat										
EMPLOY DETAIL										
Employ NO:	Employ Name	GENDER	AGE	ADDRESS,RESIDENCY	BLOODGROUP	EMIL ADDRESS	DEPARTMENT	EXPERIENCE	SALERY PER MONTH	ANUAL SALERY
oo1	abdul .D	male	26		a+	abd@gmail.com	marketing	2	20000	2,40,000
oo2	adhas.S	male	27		b+	adhas@gmail.com	sales	3	30000	3,60,000
oo3	arun .S	male	28		ab+	arun@gmail.com	design	4	40000	4,80,000
oo4	arivu.A	male	29		b-	arivu200@gmail.com	requirement	5	50000	6,00,000
oo5	andu.L	male	26		ab-	andu100@gmail.com	testing	6	60000	7,20,000
oo6	adhe .H	male	25		O	adhe@gmail.com	development	10	70000	8,40,000
oo7	arsh.C	female	25		O+	arsh@gmail.com	management	18	20000	2,40,000
oo8	avena .B	female	21		O-	avena@gmail.com	fesibility	10	30000	3,60,000
oo9	bala .E	male	30		A-	bala@gmail.com	sales	9	50000	6,00,000
o10	babu .D	male	40		B_	babu@gmail.com	marketing	3	40000	4,80,000
o11	brindha .T	female	35		AB+	brindha@gmail.com	design	0	80000	9,60,000
o12	basker .R	male	29		B+	basker@gmail.com	testing	0	20000	2,40,000
o13	brama .S	male	25		A+	brama40@gmail.com	development	2	30000	3,60,000
o14	chanthran .d	male	23		AB-	chanthran@gmail.com	requirement	3	40000	4,80,000
o15	chanthra .j	female	22		O	chanthra@gmail.com	requirement	4	50000	6,00,000
o16	charle.d	male	24		O-	charle15@gmail.com	testing	5	70000	8,40,000
o17	dhanesh .N	male	26		O+	dhanesh@gmail.com	sales	6	80000	9,60,000
o18	dewaker .M	male	32		AB	dewa@gmail.com	marketing	7	40000	4,80,000
o19	davied .V	male	34		A	davied@gmail.com	marketing	8	80000	9,60,000
o20	dhaya .S	male	31		B+	dhaya@gmail.com	testing	9	20000	2,40,000

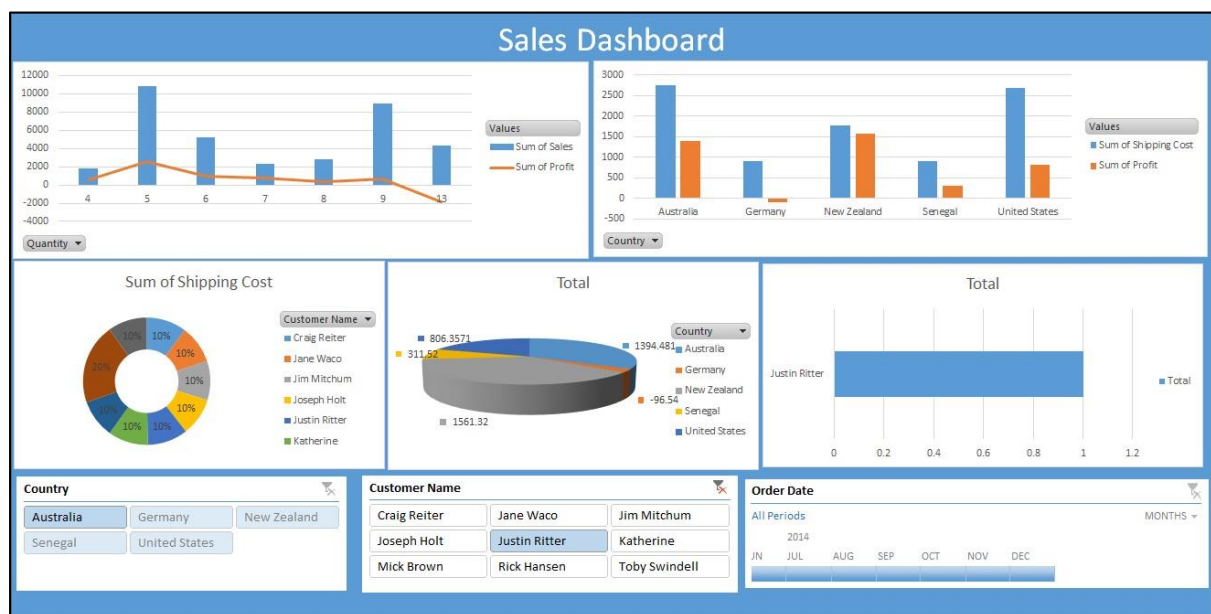
OUTPUT

Employno:001		Employno:002		Employno:003
EmployNAME:Abdul .D		EmployNAME:Adhas.s		EmployNAME:arun.s
GENDER:male		GENDER:male		GENDER:male
AGE:26		AGE:27		AGE:28
BLOODGROP:A+		BLOODGROP:B+		BLOODGROP:AB+
DEPARTMENT:marketing		DEPARTMENT:sales		DEPARTMENT:design
EXPERIENCE:2		EXPERIENCE:3		EXPERIENCE:4
Employno:004		Employno:005		Employno:006
EmployNAME:Arivu		EmployNAME:Anbu.L		EmployNAME:adhe .H
GENDER:Male		GENDER:Male		GENDER:
AGE:29		AGE:26		AGE:
BLOODGROP:B+		BLOODGROP:AB+		BLOODGROP:
DEPARTMENT:requirement		DEPARTMENT:testing		DEPARTMENT:
EXPERIENCE:5		EXPERIENCE:6		EXPERIENCE:
Employno:007		Employno:008		Employno:009
EmployNAME:arsh. C		EmployNAME:avena .B		EmployNAME:bala .E
GENDER:female		GENDER:female		GENDER:male
AGE:25		AGE:21		AGE:30
BLOODGROP:A+		BLOODGROP:B+		BLOODGROP:AB-
DEPARTMENT:management		DEPARTMENT:fesiblity		DEPARTMENT:sales
EXPERIENCE:18		EXPERIENCE:10		EXPERIENCE:9
Employno:010		Employno:011		Employno:012
EmployNAME:babu .D		EmployNAME:brindha .T		EmployNAME:basker .R
GENDER:male		GENDER:Female		GENDER:male
AGE:40		AGE:20		AGE:29
BLOODGROP:AB+		BLOODGROP:O		BLOODGROP:O+
DEPARTMENT:marketing		DEPARTMENT:design		DEPARTMENT:testing
EXPERIENCE:3		EXPERIENCE:0		EXPERIENCE:0
Employno:013		Employno:014		Employno:015
EmployNAME:bram a .S		EmployNAME:chanthra n .d		EmployNAME:chanthra .j
GENDER:male		GENDER:male		GENDER:Female
AGE:25		AGE:23		AGE:22
BLOODGROP:B+		BLOODGROP:A-		BLOODGROP:AB+
DEPARTMENT:development		DEPARTMENT:requirement		DEPARTMENT:requirement
EXPERIENCE:2		EXPERIENCE:3		EXPERIENCE:4

SOURCE CODE

Order Date	Ship Date	Customer Name	Segment	City	State	Country	Product ID	Category	Sub-Category	Sales	Quantity	Profit	Shipping Cost	Order Priority
31-07-2012	31-07-2012	Rick Hansen	Consumer	New York	New York	United States	TEC-AC-10003033	Technology	Accessories	2309.65	7	762.185	933.57	Critical
05-02-2013	07-02-2013	Justin Ritter	Corporate	Wollongong	New South	Australia	FUR-CH-10003950	Furniture	Chairs	3709.4	9	-288.77	923.63	Critical
17-10-2013	18-10-2013	Craig Reiter	Consumer	Brisbane	Queensland	Australia	TEC-PH-10004664	Technology	Phones	5175.17	9	919.971	915.49	Medium
28-01-2013	30-01-2013	Katherine	Home Office	Berlin	Berlin	Germany	TEC-PH-10004583	Technology	Phones	2892.51	5	-96.54	910.16	Medium
05-11-2013	06-11-2013	Rick Hansen	Consumer	Dakar	Dakar	Senegal	TEC-SHA-10000501	Technology	Copiers	2832.96	8	311.52	903.04	Critical
28-06-2013	01-07-2013	Jim Mitchum	Corporate	Sydney	New South	Australia	TEC-PH-10000030	Technology	Phones	2862.68	5	763.275	897.35	Critical
07-11-2011	09-11-2011	Toby Swindell	Consumer	Porirua	Wellington	New Zealand	FUR-CH-10004050	Furniture	Chairs	1822.08	4	564.84	894.77	Critical
14-04-2012	18-04-2012	Mick Brown	Consumer	Hamilton	Waikato	New Zealand	FUR-TA-10002958	Furniture	Tables	5244.84	6	996.48	878.38	High
14-10-2014	21-10-2014	Jane Waco	Corporate	Sacramento	California	United States	OFF-BI-10003527	Office Suppl	Binders	5083.96	5	1906.49	867.69	Low
28-01-2012	31-01-2012	Joseph Holt	Consumer	Concord	North Carolina	United States	FUR-TA-10000198	Furniture	Tables	4297.64	13	-1862.3	865.74	Critical

OUTPUT



SOURCE CODE

Product ID	Ship Mode	Country	Sales
TEC-AC-10003033	Same Day	United States	2309.65
FUR-CH-10003950	Second Class	Australia	3709.395
TEC-PH-10004664	First Class	Australia	5175.171
TEC-PH-10004583	First Class	United States	2892.51
TEC-SHA-1000501	Same Day	United States	2832.96
TEC-PH-10005011	Second Class	Italy	2862.675
FUR-CH-10004050	First Class	New Zealand	1822.08
FUR-TA-10002958	Standard Class	Brazil	5244.84
OFF-BI-10003527	Standard Class	United States	5083.96
FUR-TA-10000198	Second Class	India	4297.644
OFF-SU-10002881	Second Class	United States	4164.05

OUTPUT

Tableau Public - Book1

File Data Window Help

Connections 8 Microsoft Excel

Sheets Sheet1

New Union

New Table Extension

Sheet1 (8)

Sheet1

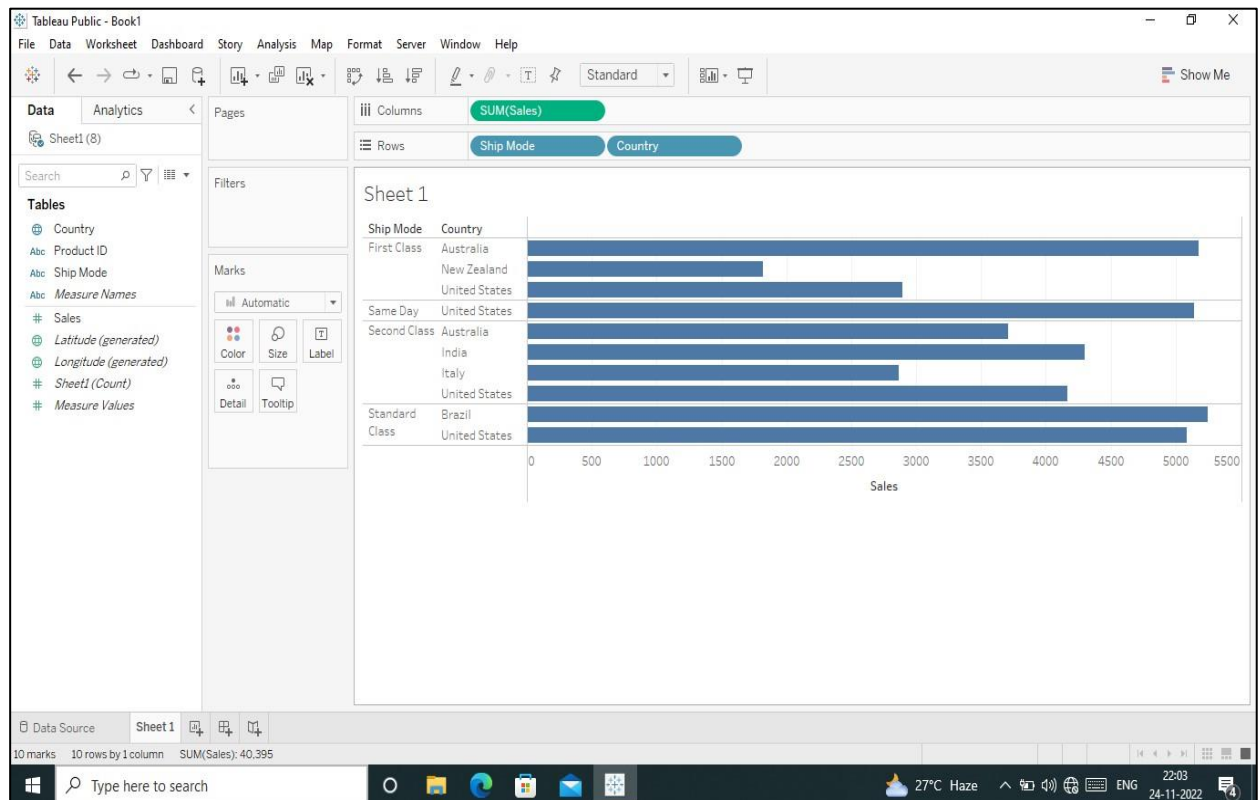
Need more data?

Sheet1 4 fields 11 rows 11 rows

Name	Type	Field Name	Physical Table	Remote Field Name
Sheet1	Table			
Product ID	Text	Product ID	Sheet1	Product ID
Ship Mode	Text	Ship Mode	Sheet1	Ship Mode
Country	Text	Country	Sheet1	Country
Sales	Text	Sales	Sheet1	Sales

Product ID	Ship Mode	Country	Sales
TEC-AC-10003033	Same Day	United States	2,309.65
FUR-CH-10003950	Second Class	Australia	3,709.40
TEC-PH-10004664	First Class	Australia	5,175.17
TEC-PH-10004583	First Class	United States	2,892.51
TEC-SHA-1000501	Same Day	United States	2,832.96
TEC-PH-10005011	Second Class	Italy	2,862.68
FUR-CH-10004050	First Class	New Zealand	1,822.08
FUR-TA-10002958	Standard Class	Brazil	5,244.84
OFF-BI-10003527	Standard Class	United States	5,083.96
FUR-TA-10000198	Second Class	India	4,297.64

Data Source Sheet1



SOURCE CODE

SHIP MODE	COUNTRY	SALES
First Class	United States	13999.96
First Class	Ukraine	4486.86
First Class	Afghanistan	4626.15
First Class	India	4986.86
First Class	Greenland	4000.906
Second Class	Australia	3709.395
Second Class	Australia	2862.675
Second Class	United States	4297.644
Second Class	United States	4456.1
Standard Class	Italy	7958.58
Standard Class	New Zealand	5244.84
Standard Class	Brazil	4789.22
Same day	Brazil	2221.8
Same day	India	1878.72

OUTPUT

Tableau Public - Book1

File Data Window Help

Sheet1 (9)

Filters 0 | Add

Sheet1 3 fields 14 rows 14 rows

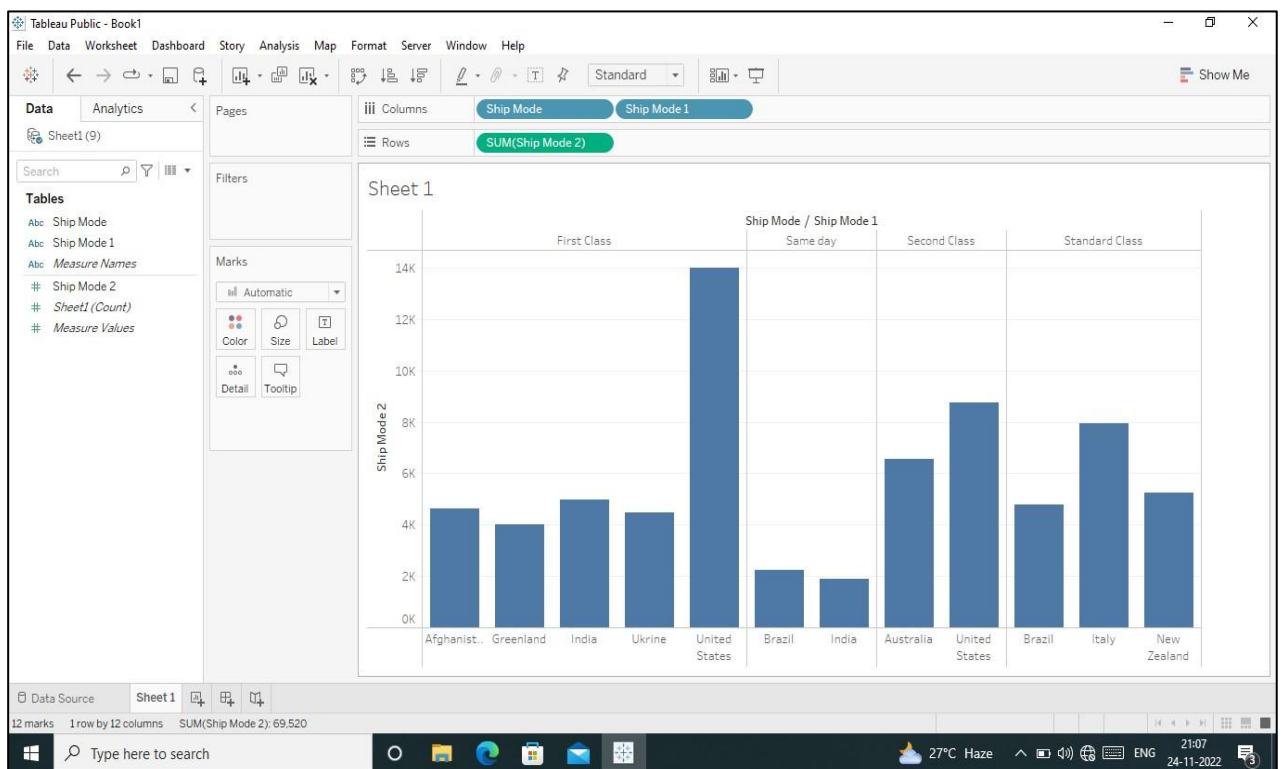
Type	Field Name	Physical Table	Remote Field Na...
Abc	Ship Mode	Sheet1	SHIP MODE
Abc	Ship Mode 1	Sheet1	SHIP MODE 1
#	Ship Mode 2	Sheet1	SHIP MODE 2

Abc Sheet1	Abc Sheet1	# Sheet1
Ship Mode	Ship Mode 1	Ship Mode 2
First Class	United States	13,999.96
First Class	Ukraine	4,486.86
First Class	Afghanistan	4,626.15
First Class	India	4,986.86
First Class	Greenland	4,000.91
Second Class	Australia	3,709.40
Second Class	Australia	2,862.68
Second Class	United States	4,297.64
Second Class	United States	4,456.10
Standard Class	Italy	7,958.58
Standard Class	New Zealand	5,244.84
Standard Class	Brazil	4,789.22
Same day	Brazil	2,221.80
Same day	India	1,878.72

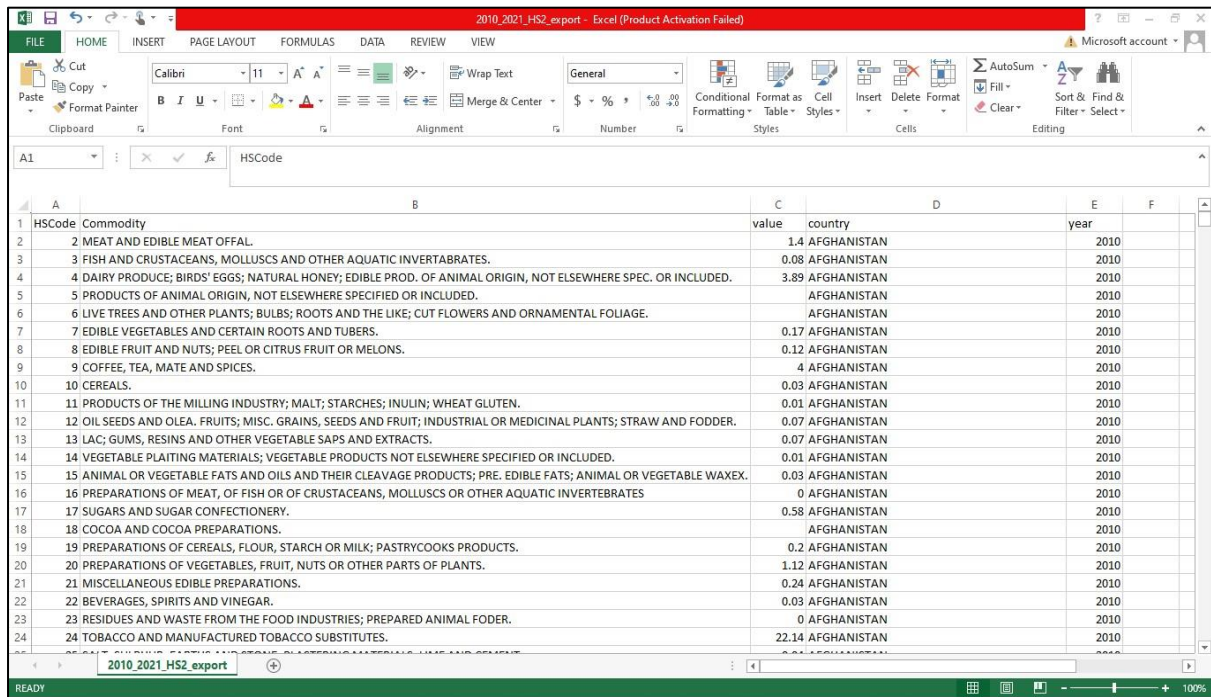
Data Source Sheet1

Type here to search

27°C Haze 21:03 24-11-2022



SOURCE CODE



HSCode	Commodity	value	country	year	
2	MEAT AND EDIBLE MEAT OFFAL.	1.4	AFGHANISTAN	2010	
3	FISH AND CRUSTACEANS, MOLLUSCS AND OTHER AQUATIC INVERTEBRATES.	0.08	AFGHANISTAN	2010	
4	DAIRY PRODUCE; BIRDS' EGGS; NATURAL HONEY; EDIBLE PROD. OF ANIMAL ORIGIN, NOT ELSEWHERE SPEC. OR INCLUDED.	3.89	AFGHANISTAN	2010	
5	PRODUCTS OF ANIMAL ORIGIN, NOT ELSEWHERE SPECIFIED OR INCLUDED.		AFGHANISTAN	2010	
6	LIVE TREES AND OTHER PLANTS; BULBS; ROOTS AND THE LIKE; CUT FLOWERS AND ORNAMENTAL FOLIAGE.		AFGHANISTAN	2010	
7	EDIBLE VEGETABLES AND CERTAIN ROOTS AND TUBERS.	0.17	AFGHANISTAN	2010	
8	EDIBLE FRUIT AND NUTS; PEEL OR CITRUS FRUIT OR MELONS.	0.12	AFGHANISTAN	2010	
9	COFFEE, TEA, MATE AND SPICES.	4	AFGHANISTAN	2010	
10	CEREALS.	0.03	AFGHANISTAN	2010	
11	PRODUCTS OF THE MILLING INDUSTRY; MALT; STARCHES; INULIN; WHEAT GLUTEN.	0.01	AFGHANISTAN	2010	
12	OIL SEEDS AND OLEA. FRUITS; MISC. GRAINS, SEEDS AND FRUIT; INDUSTRIAL OR MEDICINAL PLANTS; STRAW AND FODDER.	0.07	AFGHANISTAN	2010	
13	LAC; GUMS, RESINS AND OTHER VEGETABLE SAPS AND EXTRACTS.	0.07	AFGHANISTAN	2010	
14	VEGETABLE PLAITING MATERIALS; VEGETABLE PRODUCTS NOT ELSEWHERE SPECIFIED OR INCLUDED.	0.01	AFGHANISTAN	2010	
15	ANIMAL OR VEGETABLE FATS AND OILS AND THEIR CLEAVAGE PRODUCTS; PRE. EDIBLE FATS; ANIMAL OR VEGETABLE WAXEX.	0.03	AFGHANISTAN	2010	
16	PREPARATIONS OF MEAT, OF FISH OR OF CRUSTACEANS, MOLLUSCS OR OTHER AQUATIC INVERTEBRATES	0	AFGHANISTAN	2010	
17	SUGARS AND SUGAR CONFECTIONERY.	0.58	AFGHANISTAN	2010	
18	COCOA AND COCOA PREPARATIONS.		AFGHANISTAN	2010	
19	PREPARATIONS OF CEREALS, FLOUR, STARCH OR MILK; PASTRYCOOKS PRODUCTS.	0.2	AFGHANISTAN	2010	
20	PREPARATIONS OF VEGETABLES, FRUIT, NUTS OR OTHER PARTS OF PLANTS.	1.12	AFGHANISTAN	2010	
21	MISCELLANEOUS EDIBLE PREPARATIONS.	0.24	AFGHANISTAN	2010	
22	BEVERAGES, SPIRITS AND VINEGAR.	0.03	AFGHANISTAN	2010	
23	RESIDUES AND WASTE FROM THE FOOD INDUSTRIES; PREPARED ANIMAL FODER.	0	AFGHANISTAN	2010	
24	TOBACCO AND MANUFACTURED TOBACCO SUBSTITUTES.	22.14	AFGHANISTAN	2010	

OUTPUT

Tableau Public - Book2

File Data Window Help

2010_2021_HS2_export

Connections

2010_2021_HS2_export
Text file

Files

☐ Use Data Interpreter
Data Interpreter might be able to clean your Text file workbook.

2010_2021_...export.csv
2010_2021_...import.csv
2018-2010_export.csv
2018-2010_import.csv
Car_sales.csv
kc_house_data.csv
PS4_GamesSales.csv
Sales_April_2019.csv
Sales_August_2019.csv
Sales_December_2019.csv
Sales_February_2019.csv
Sales_January_2019.csv
Sales_July_2019.csv
Sales_June_2019.csv

New Union

New Table Editor

Go to Worksheet

2010_2021_HS2_export.csv

5 fields 184755 rows

100 rows

Name
2010_2021_HS2_export.csv

Fields

Type	Field Name	Physical Table	Rem...
#	HS Code	2010_2021_HS2_export.c...	HSCode
Abc	Commodity	2010_2021_HS2_export.c...	Com...
#	Value	2010_2021_HS2_export.c...	value
🌐	Country	2010_2021_HS2_export.c...	country
#	Year	2010_2021_HS2_export.c...	year

#	2010_2021_HS2_export.csv	Abc	2010_2021_HS2_export.csv	#	2010_2021_HS2_export.csv	🌐	2010_2021_HS2_export.csv
HS Code	Commodity	Value	Country				
59	IMPREGNATEI	0.32	HONG KONG				
60	KNITTED OR CROCHETED F...	0.33	HONG KONG				
61	ARTICLES OF APPAREL AND ...	23.43	HONG KONG				
62	ARTICLES OF APPAREL AND ...	47.57	HONG KONG				
63	OTHER MADE UP TEXTILE A...	5.34	HONG KONG				
64	FOOTWEAR, GAITERS AND T...	11.43	HONG KONG				
65	HEADGEAR AND PARTS THE...	0.03	HONG KONG				
66	UMBRELLAS, SUN UMBRELL...	0.00	HONG KONG				
67	PREPARED FEATHERS AND ...	19.90	HONG KONG				
68	ARTICLES OF STONE, PLAST...	2.40	HONG KONG				
69	CERAMIC PRODUCTS.	0.17	HONG KONG				
70	GLASS AND GLASSWARE.	3.04	HONG KONG				

Data Source Sheet1

