

# Project Instruction's

Create a database in mysql with 300 rows and multiple columns [MySQL]

Export the table into excel or CSV and design a digital dashboard [Power Bi]

Using the data do the following

Boxplot

Violin plot

Venn diagram

Using the data do the followings

Demographic

Cross tab [between two string variables]

One sample t-test

Independent sample t-test

Linear regression

# 1. Using xampp

BY using xampp ,created a database in Mysql and added a table with 6 column's and 300 rows .Then export the data table in CSV format .

The screenshot shows the phpMyAdmin interface. On the left is the database navigation tree with 'itm302\_project' selected and 'sells' table highlighted. The main panel shows the 'Table structure' tab for the 'sells' table. The table has 6 columns: 'si' (int(11), AUTO\_INCREMENT), 'sells\_person' (varchar(20)), 'product' (varchar(20)), 'country' (varchar(15)), 'price' (int(7)), and 'boxes' (int(5)). All columns are set to 'No' for null and 'None' for default. Below the table structure, there are options to 'Check all', 'With selected', 'Browse', 'Change', 'Drop', 'Primary', 'Unique', 'Index', and 'Spatial'. There is also a 'Fulltext' option and buttons for 'Add to central columns' and 'Remove from central columns'. At the bottom, there is a 'Print' button, 'Propose table structure', 'Track table', 'Move columns', and 'Normalize' buttons. A form to 'Add' columns is visible with '1' in the input field and 'column(s)' in the dropdown, followed by a 'Go' button.

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	si	int(11)			No	None		AUTO_INCREMENT	<a href="#">Change</a> <a href="#">Drop</a> <a href="#">More</a>
2	sells_person	varchar(20)	utf8mb4_general_ci		No	None			<a href="#">Change</a> <a href="#">Drop</a> <a href="#">More</a>
3	product	varchar(20)	utf8mb4_general_ci		No	None			<a href="#">Change</a> <a href="#">Drop</a> <a href="#">More</a>
4	country	varchar(15)	utf8mb4_general_ci		No	None			<a href="#">Change</a> <a href="#">Drop</a> <a href="#">More</a>
5	price	int(7)			No	None			<a href="#">Change</a> <a href="#">Drop</a> <a href="#">More</a>
6	boxes	int(5)			No	None			<a href="#">Change</a> <a href="#">Drop</a> <a href="#">More</a>

Rows and columns are prepared with data .

The screenshot shows the phpMyAdmin interface with the 'sells' table selected. The main panel shows the 'Table structure' tab. A green banner at the top indicates 'Showing rows 0 - 24 (311 total, Query took 0.0006 seconds.)'. Below this, the SQL query 'SELECT \* FROM `sells`' is displayed. There are links for 'Profiling', 'Edit inline', 'Edit', 'Explain SQL', 'Create PHP code', and 'Refresh'. Below the query, there are controls for '1' row, 'Show all', 'Number of rows: 25', 'Filter rows: Search this table', and 'Sort by key: None'. The table data is displayed with columns: 'si', 'sells\_person', 'product', 'country', 'price', and 'boxes'. Each row has 'Edit', 'Copy', and 'Delete' buttons. The data rows are as follows:

si	sells_person	product	country	price	boxes
1	Miraj	T-shirts	Canada	3686	107
2	Sumon	PoloShirts	Brazil	7359	152
3	Jamal	DenimJeans	Australia	8649	124
4	Sharif	FormalShirts	France	11489	81
5	Abdullah	Trousers	Japan	17880	135
6	Ashif	Hoodies	Nigeria	13192	24
7	Miraj	Jackets	India	12928	28
8	Sumon	Skirts	Italy	23564	103
9	Jamal	Dresses	Mexico	21806	190
10	Sharif	Sportswear	SouthKorea	25535	127

## 2. Using Power BI Designing a digital dashboard with different data visualization .

Successfully imported CSV file in power bi software.

ITM302\_final data2.csv

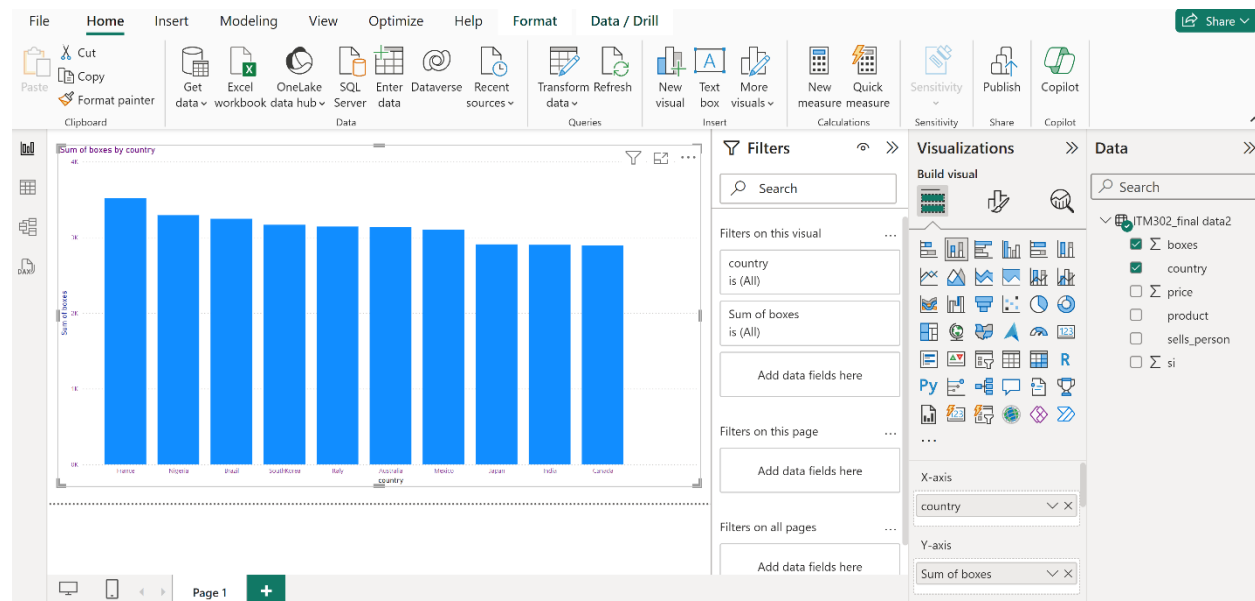
File Origin: 1252: Western European (Windows) | Delimiter: Comma | Data Type Detection: Based on first 200 rows

si	sells_person	product	country	price	boxes
1	Miraj	T-shirts	Canada	3686	107
2	Sumon	PoloShirts	Brazil	7359	152
3	Jamal	DenimJeans	Australia	8649	124
4	Sharif	FormalShirts	France	11489	81
5	Abdullah	Trousers	Japan	17880	135
6	Ashif	Hoodies	Nigeria	13192	24
7	Miraj	Jackets	India	12928	28
8	Sumon	Skirts	Italy	23564	103
9	Jamal	Dresses	Mexico	21806	190
10	Sharif	Sportswear	SouthKorea	25535	127
11	Abdullah	T-shirts	Canada	25670	25
12	Ashif	PoloShirts	Brazil	16911	55
13	Miraj	DenimJeans	Australia	20189	122
14	Sumon	FormalShirts	France	22581	186
15	Jamal	Trousers	Japan	25434	131
16	Sharif	Hoodies	Nigeria	29523	86
17	Abdullah	Jackets	India	2396	89
18	Ashif	Skirts	Italy	17473	140
19	Miraj	Dresses	Mexico	27271	67
20	Sumon	Sportswear	SouthKorea	18566	130

The data in the preview has been truncated due to size limits.

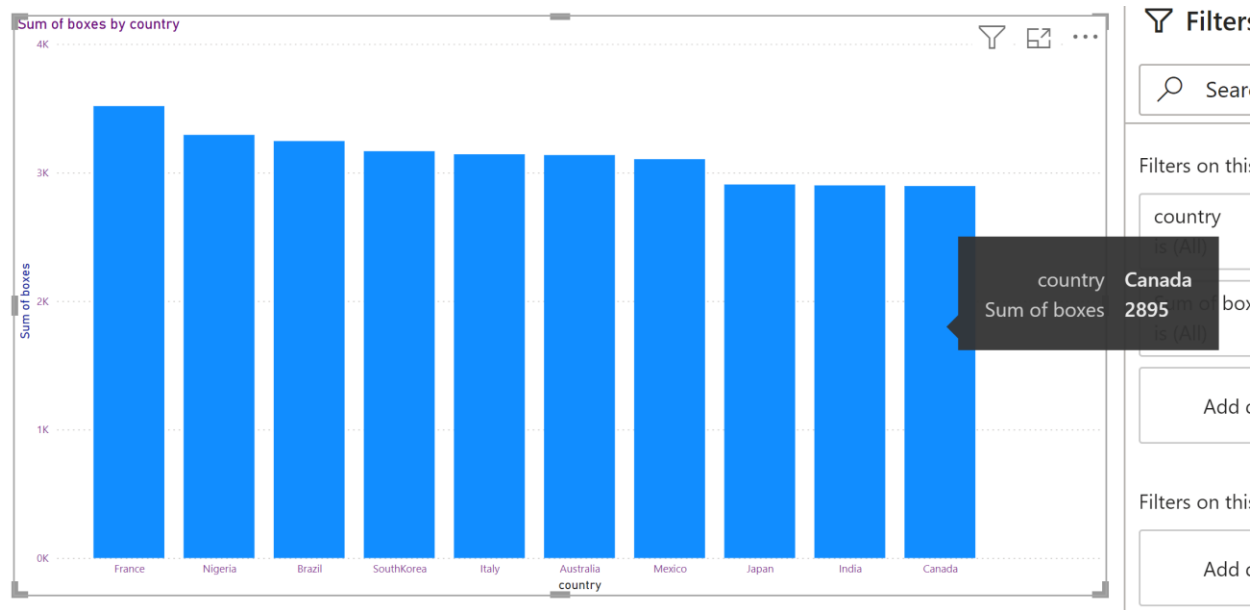
Extract Table Using Examples | Load | Transform Data | Cancel

Using power bi we visualized which country we shipped most of the boxes , we figure out that we shipped most of our boxes in France and minimum in Canada.

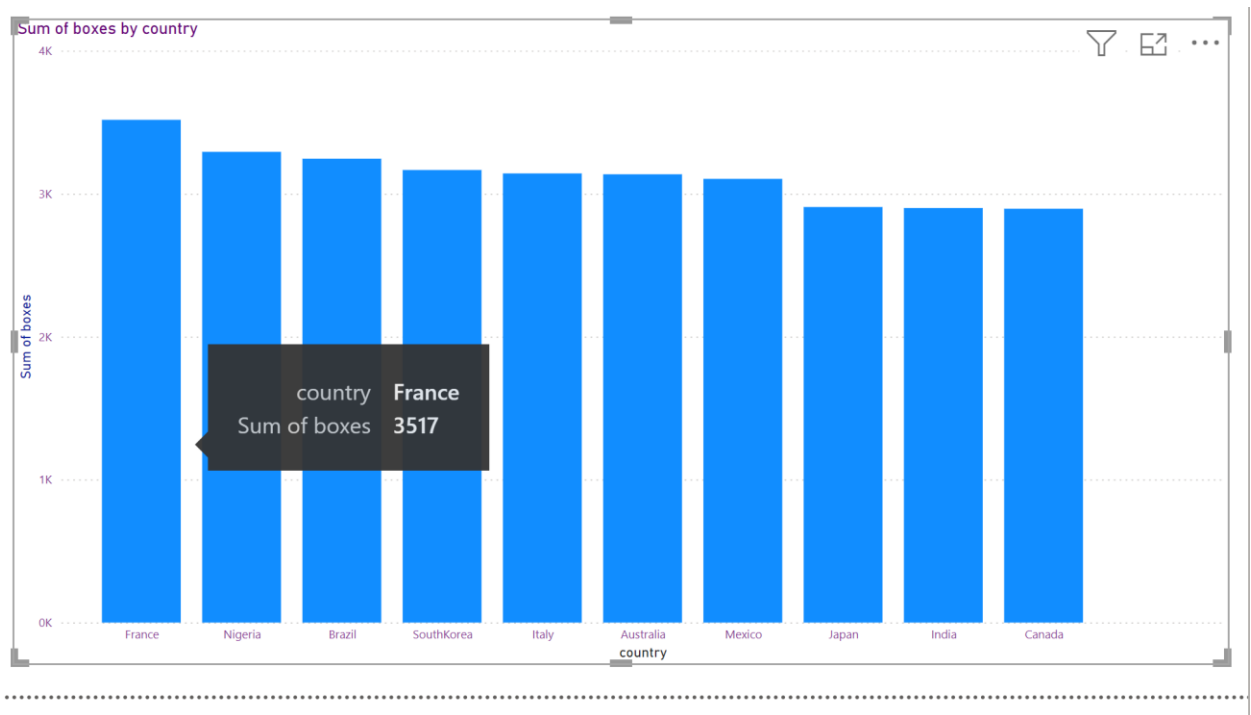


More specified with numbers.

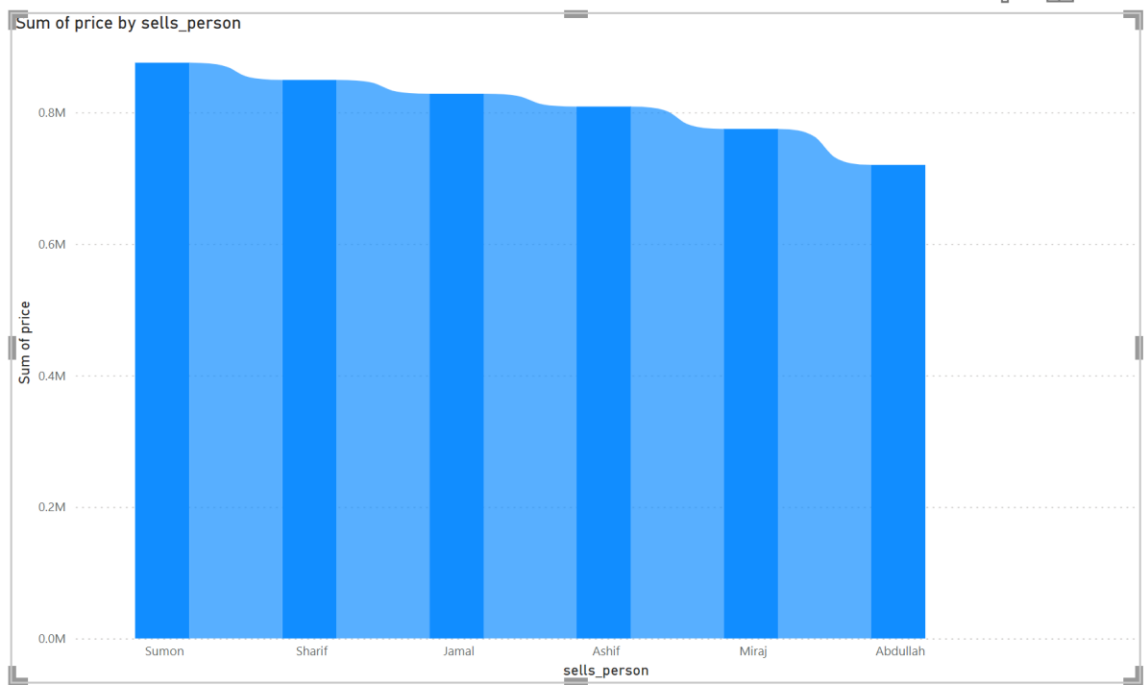
Total 2895 boxes has been shipped to Canada that in the minimum among other 9 countries .



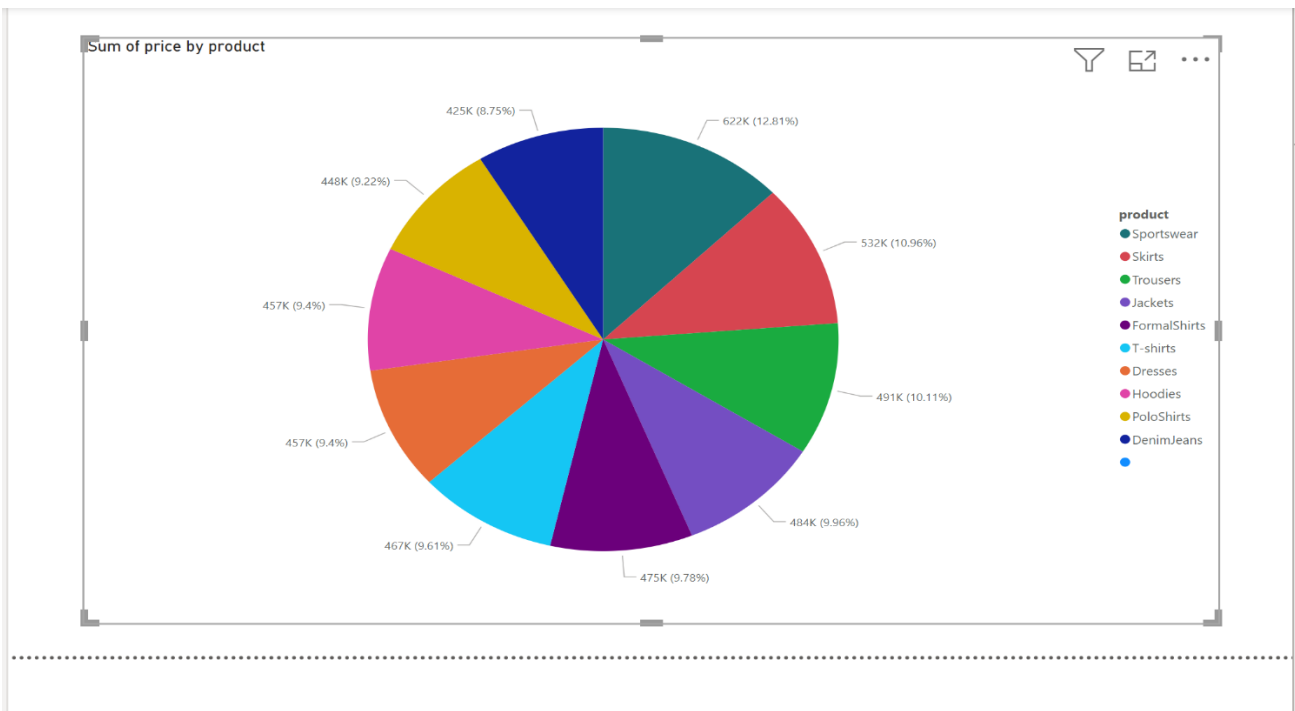
Total 3517 boxes were shipped to France.That is the highest among other.



This is the data of sells person that represents their performance which shows Sumon made most of sells that is 0.8+ million dollars and Abdullah books lest amount of sells that is 0.66 million dollars .



The pie charts represent the total market value of each products. Here we can see Sportswear holds the large possition in the market that is 12.81% of total market share and it makes 6 lakh and 22 thousands dollar . And Denimjeans makes lest amount of money.



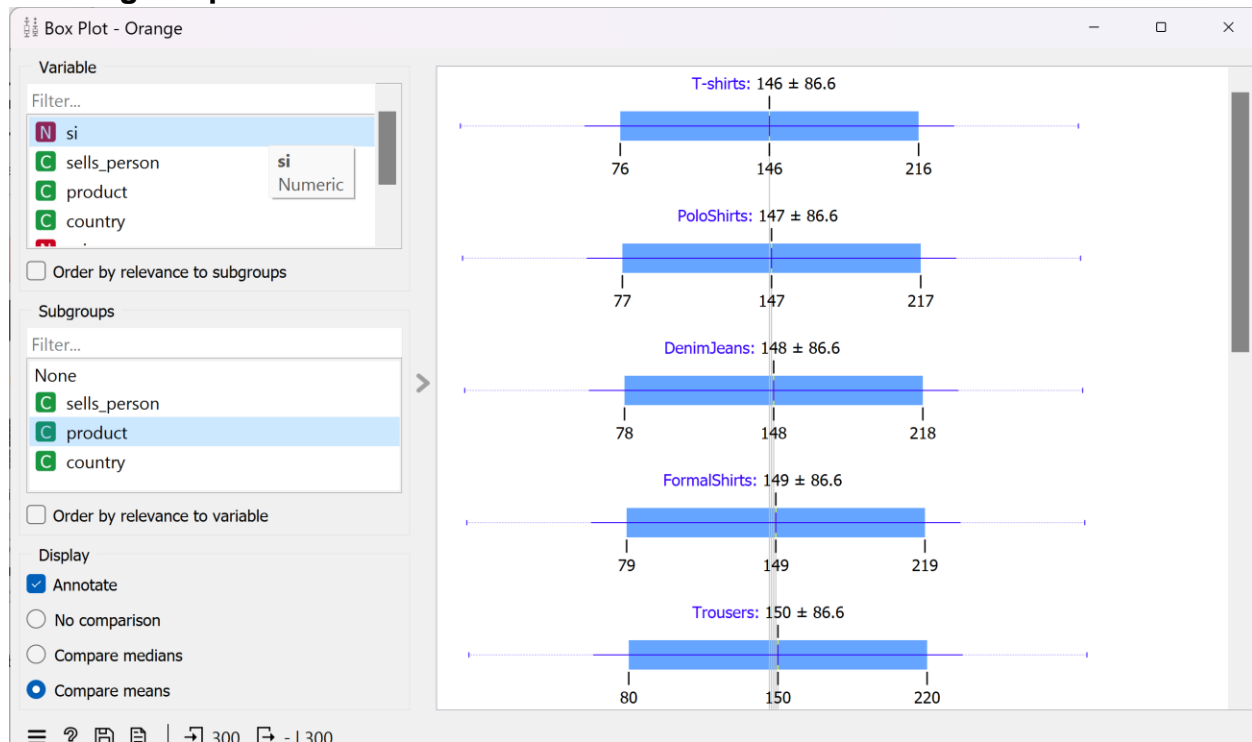
### 3.Using Orange Preparing Boxplot, Violin plot, Venn diagram.

Successfully insert data into file.

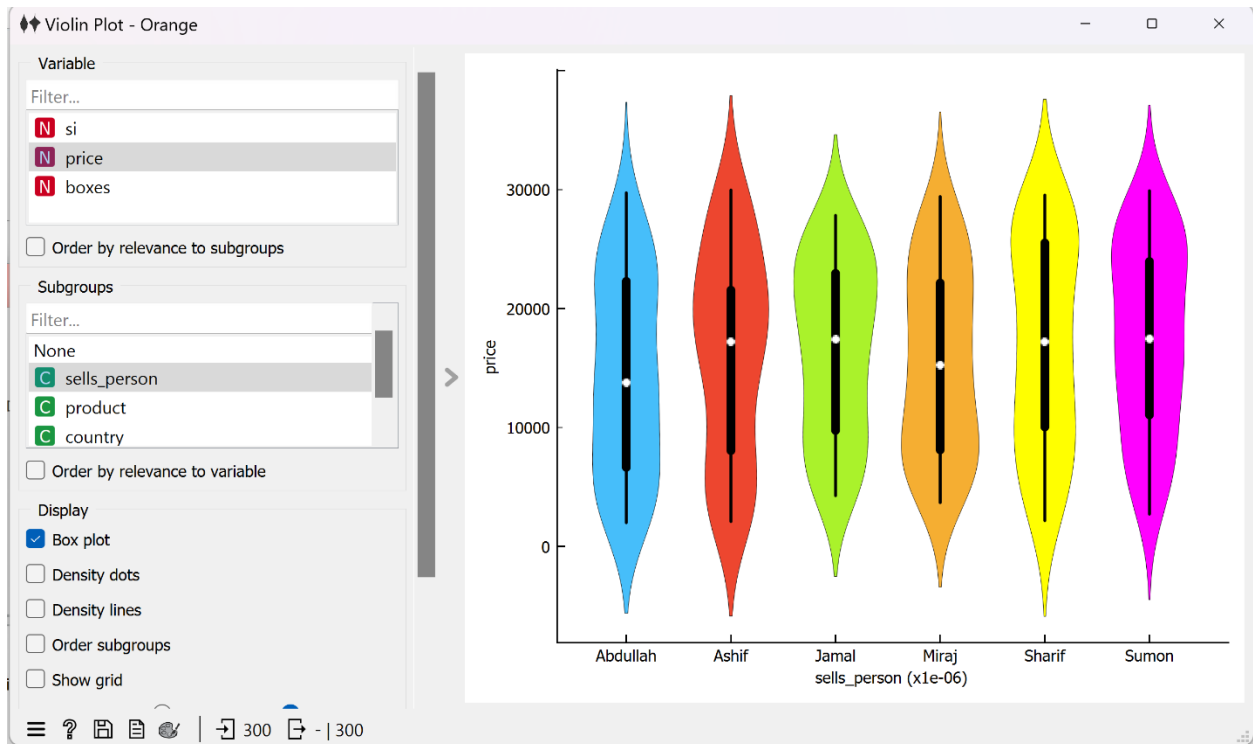
The screenshot shows the Orange data mining software interface. On the left is the widget toolbox with categories like Data, Transform, Visualize, Model, and Evaluate. The 'Data' category is selected, showing options like File, CSV File Import, Datasets, and SQL Table. The 'File' widget is placed on the canvas. A 'File - Orange' dialog box is open, showing the source as 'Downloads\ITM302\_final data2.csv'. Below the dialog, a data preview window displays the first 10 rows of the dataset.

	si	sells_person	product	country	price	boxes
1	1	Miraj	T-shirts	Canada	3686	107
2	2	Sumon	PoloShirts	Brazil	7359	152
3	3	Jamal	DenimJeans	Australia	8649	124
4	4	Sharif	FormalShirts	France	11489	81
5	5	Abdullah	Trousers	Japan	17880	135
6	6	Ashif	Hoodies	Nigeria	13192	24
7	7	Miraj	Jackets	India	12928	28
8	8	Sumon	Skirts	Italy	23564	103
9	9	Jamal	Dresses	Mexico	21806	190
10	10	Sharif	Sportswear	SouthKorea	25535	127

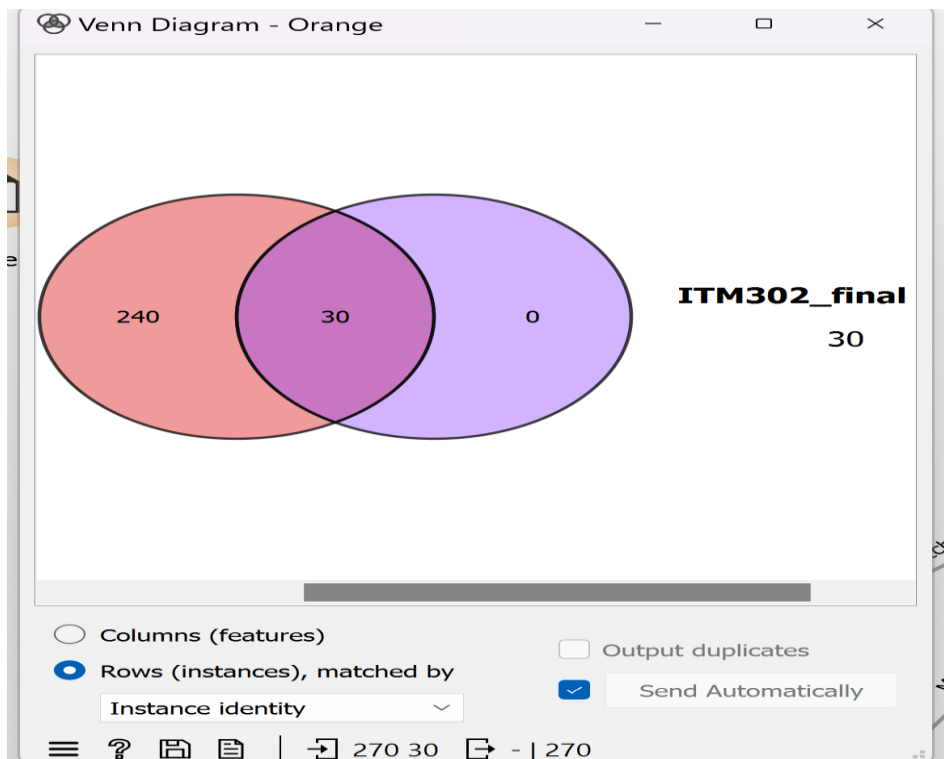
### Creating Boxplot



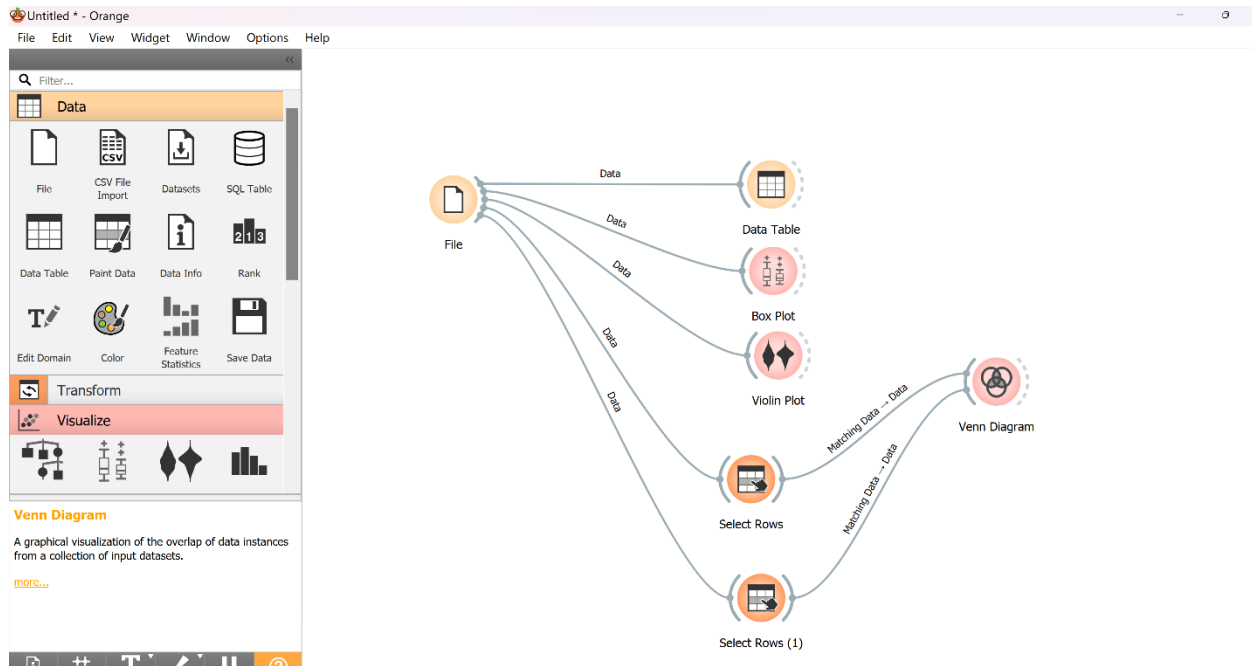
## Creating Violin plot



## Creating Venn diagram.



In Orange software, I created a Boxplot and Violin plot to analyze product prices and distributions. Additionally, I used a Venn diagram to visualize the relationships between products, salespersons, and countries. These visualizations provided insights into pricing trends and categorical overlaps.





## 4. IBM spss .using spss analyze Demographic Cross tab [between two string variables] One sample t-test,Independent sample t-test ,Linear regression.

### Successfully insert data into spss software.

Visible: 6 of 6 Variables

	si	sells_person	product	country	price	boxes	var	var	var	var	var	var	var	var	var
1	1	Miraj	T-shirts	Canada	3686	107									
2	2	Sumon	PoloShirts	Brazil	7359	152									
3	3	Jamal	DenimJeans	Australia	8649	124									
4	4	Sharif	FormalShirts	France	11489	81									
5	5	Abdullah	Trousers	Japan	17880	135									
6	6	Ashif	Hoodies	Nigeria	13192	24									
7	7	Miraj	Jackets	India	12928	28									
8	8	Sumon	Skirts	Italy	23564	103									
9	9	Jamal	Dresses	Mexico	21806	190									
10	10	Sharif	Sportswear	SouthKorea	25535	127									
11	11	Abdullah	T-shirts	Canada	25670	25									
12	12	Ashif	PoloShirts	Brazil	16911	55									
13	13	Miraj	DenimJeans	Australia	20189	122									
14	14	Sumon	FormalShirts	France	22581	186									
15	15	Jamal	Trousers	Japan	25434	131									
16	16	Sharif	Hoodies	Nigeria	29523	86									
17	17	Abdullah	Jackets	India	2396	89									
18	18	Ashif	Skirts	Italy	17473	140									
19	19	Miraj	Dresses	Mexico	27271	67									
20	20	Sumon	Sportswear	SouthKorea	18566	130									
21	21	Jamal	T-shirts	Canada	19687	171									
22	22	Sharif	PoloShirts	Brazil	29527	93									

### One-sample T test

**One-Sample Statistics**

	N	Mean	Std. Deviation	Std. Error Mean
price	300	16187.83	8156.478	470.914
boxes	300	104.35	51.754	2.988

**One-Sample Test**  
Test Value = 50

	t	df	Significance		Mean Difference	95% Confidence Interval of the Difference	
			One-Sided p	Two-Sided p		Lower	Upper
price	34.269	299	< .001	< .001	16137.827	15211.10	17064.55
boxes	18.189	299	< .001	< .001	54.350	48.47	60.23

**One-Sample Effect Sizes**

		Standardizer <sup>a</sup>	Point Estimate	95% Confidence Interval	
				Lower	Upper
price	Cohen's d	8156.478	1.979	1.783	2.173
	Hedges' correction	8177.009	1.974	1.779	2.167
boxes	Cohen's d	51.754	1.050	.909	1.191
	Hedges' correction	51.884	1.048	.906	1.188

a. The denominator used in estimating the effect sizes.  
Cohen's d uses the sample standard deviation.  
Hedges' correction uses the sample standard deviation, plus a correction factor.

### Crosstab statistics

**Output**

- Log
- T-Test
- Title
- Notes
- Active Dataset
- One-Sample Statistics
- One-Sample Test
- One-Sample Effect
- Crosstabs
  - Title
  - Notes
  - Case Processing Summary
  - product \* country C
- Crosstabs
  - Title
  - Notes
  - Case Processing Summary
  - product \* country C

**Case Processing Summary**

	Valid		Cases Missing		Total	
	N	Percent	N	Percent	N	Percent
product * country	300	100.0%	0	0.0%	300	100.0%

**product \* country Crosstabulation**

Count

		country										Total
		Australia	Brazil	Canada	France	India	Italy	Japan	Mexico	Nigeria	SouthKorea	
product	DenimJeans	30	0	0	0	0	0	0	0	0	0	30
	Dresses	0	0	0	0	0	0	0	30	0	0	30
	FormalShirts	0	0	0	30	0	0	0	0	0	0	30
	Hoodies	0	0	0	0	0	0	0	0	30	0	30
	Jackets	0	0	0	0	30	0	0	0	0	0	30
	PoloShirts	0	30	0	0	0	0	0	0	0	0	30
	Skirts	0	0	0	0	0	30	0	0	0	0	30
	Sportswear	0	0	0	0	0	0	0	0	0	30	30
	T-shirts	0	0	30	0	0	0	0	0	0	0	30
	Trousers	0	0	0	0	0	0	30	0	0	0	30
Total	30	30	30	30	30	30	30	30	30	30	300	

## Demographic statistics

The screenshot displays the SPSS software interface with the 'Estimates of Covariance Parameters' dialog box open. The 'Repeated Measures' section is selected, and the 'Dependent Variable' is set to 'price'. The 'Frequencies' section is also visible, showing 'Statistics' for 'sells\_person' and 'country'. The 'Frequency Table' section is also visible, showing 'sells\_person' and 'country'.

Warnings					
T-Test	Title				
Notes	Notes				
Warnings	Warnings				
Mixed Model Analysis	Title				
Notes	Notes				
Model Dimension	Model Dimension				
Information Criteria	Information Criteria				
Fixed Effects	Fixed Effects				
Type III Tests	Type III Tests				
Covariance Parameters	Covariance Parameters				
Estimates	Estimates				
Frequencies	Frequencies				
Title	Title				
Notes	Notes				
Statistics	Statistics				
Frequency Table	Frequency Table				
Title	Title				
sells_person	sells_person				
country	country				
Frequencies	Frequencies				
Title	Title				
Notes	Notes				
Statistics	Statistics				
Frequency Table	Frequency Table				
Title	Title				
sells_person	sells_person				
country	country				

Statistics					
		sells_person	country		
N	Valid	300	300		
	Missing	0	0		

Frequency Table					
		sells_person			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Abdullah	50	16.7	16.7	16.7
	Ashif	50	16.7	16.7	33.3
	Jamal	50	16.7	16.7	50.0
	Miraj	50	16.7	16.7	66.7
	Sharif	50	16.7	16.7	83.3
	Sumon	50	16.7	16.7	100.0
	Total	300	100.0	100.0	

Frequency Table					
		country			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Australia	30	10.0	10.0	10.0
	Brazil	30	10.0	10.0	20.0
	Canada	30	10.0	10.0	30.0

It was an amazing experience!

Thank you .