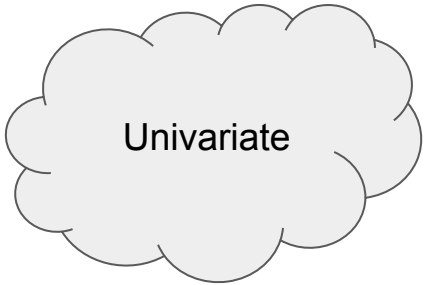
Multivariate Analysis

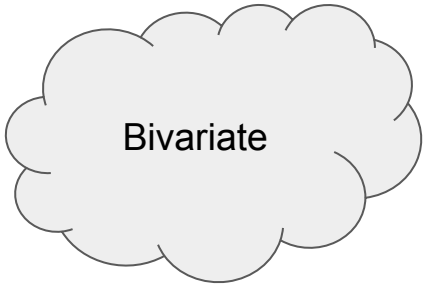
Multivariate Analysis

What is the distribution of age in our dataset ?



Multivariate Analysis

What is the distribution of age of churning customers in our dataset ?



Multivariate Analysis

What is the distribution of “age, occupation & gender” of churning customers in our dataset ?

Multivariate

Analytics Vidhya
Learn everything about analytics

Pivot Table

Pivot Table

High-level overview of the data at hand

Pivot Table

High-level overview of the data at hand

Can analyse the granular details about multiple features of the data

Pivot Table

High-level overview of the data at hand

Can analyse the granular details about multiple features of the data

Represent a two-dimensional table that provides a multidimensional summarization of the data

Pivot Table

High-level overview of the data at hand

Can analyse the granular details about multiple features of the data

Represent a two-dimensional table that provides a multidimensional summarization of the data

The levels in the pivot table will be stored in MultiIndex objects

Pivot Table

What is the distribution of “age, occupation & gender” of churning customers in our dataset ?

Pivot Table

What is the distribution of “age, occupation & gender” of churning customers in our dataset ?

		occupation	company	retired	salaried	self_employed	student
gender	age						
Female	(0, 25]	NaN	NaN	7.0	27.0	102.0	
	(25, 50]	2.0	0.0	226.0	852.0	38.0	
	(50, 100]	1.0	52.0	70.0	605.0	0.0	
Male	(0, 25]	0.0	NaN	17.0	74.0	137.0	
	(25, 50]	0.0	2.0	563.0	1107.0	47.0	
	(50, 100]	0.0	251.0	264.0	698.0	0.0	

Pivot Table

What is the distribution of “age, occupation & gender” of churning customers in our dataset ?

		occupation	company	retired	salaried	self_employed	student
gender	age						
Female	(0, 25]	NaN	NaN	7.0	27.0	102.0
	(25, 50]	2.0	0.0	226.0	852.0	38.0
	(50, 100]	1.0	52.0	70.0	605.0	0.0
Male	(0, 25]	0.0	NaN	17.0	74.0	137.0
	(25, 50]	0.0	2.0	563.0	1107.0	47.0
	(50, 100]	0.0	251.0	264.0	698.0	0.0

Multivariate Scatter Plot

Multivariate Scatter Plot

A *pair-wise scatter plot* and introducing the notion of *color* or *hue* to separate out values in a categorical dimension.

Multivariate Scatter Plot

A *pair-wise scatter plot* and introducing the notion of *color* or *hue* to separate out values in a categorical dimension.

Two continuous(pairwise scatter plot) and one categorical feature(colour or hue).

Multivariate Scatter Plot

A *pair-wise scatter plot* and introducing the notion of *color* or *hue* to separate out values in a categorical dimension.

Two continuous(pairwise scatter plot) and one categorical feature(colour or hue).

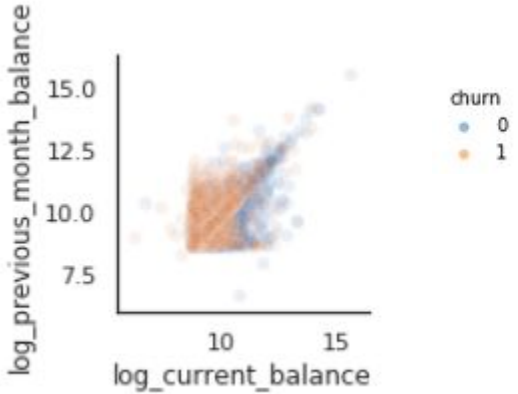
Ex: What is the pattern of account balance (current month and previous month) for churning and non churning customers?

Multivariate Scatter Plot

A *pair-wise scatter plot* and introducing the notion of *color* or *hue* to separate out values in a categorical dimension.

Two continuous(pairwise scatter plot) and one categorical feature(colour or hue).

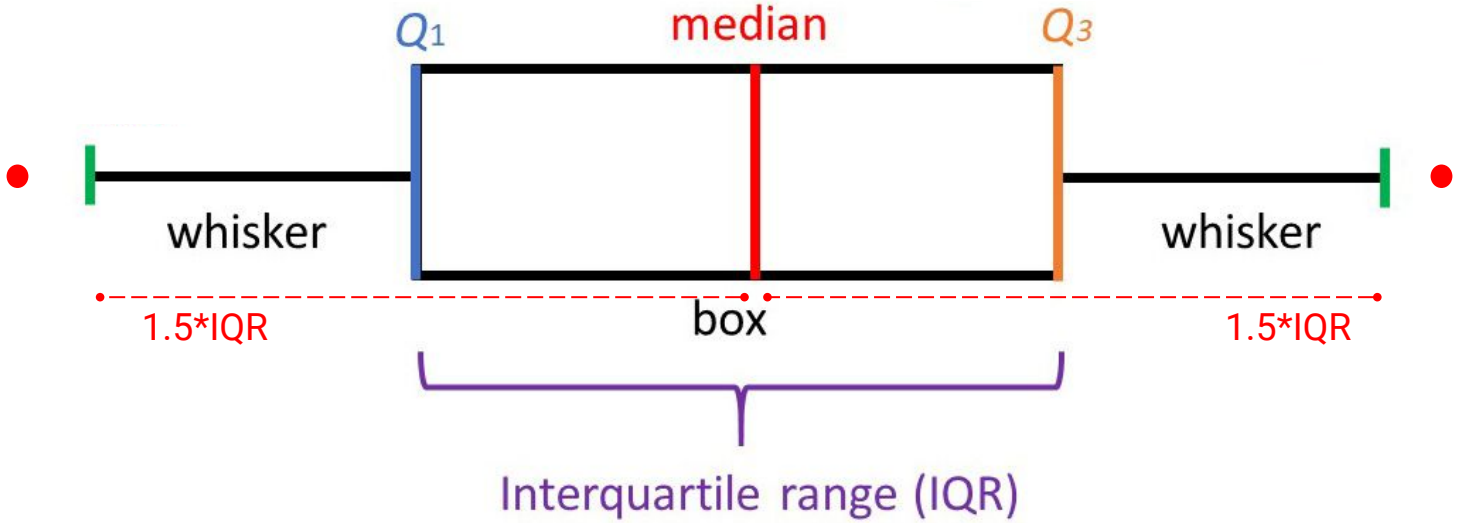
Ex: What is the pattern of account balance (current month and previous month) for churning and non churning customers?



Analytics Vidhya
Learn everything about analytics

Grouped Boxplot

Grouped Boxplot



Grouped Boxplot

We can visualize three features at once by considering Boxplot and introducing the notion of color or hue to separate out values in a categorical dimension.

Grouped Boxplot

We can visualize three features at once by considering Boxplot and introducing the notion of color or hue to separate out values in a categorical dimension.

One continuous and two categorical feature

Grouped Boxplot

We can visualize three features at once by considering Boxplot and introducing the notion of color or hue to separate out values in a categorical dimension.

One continuous and two categorical feature

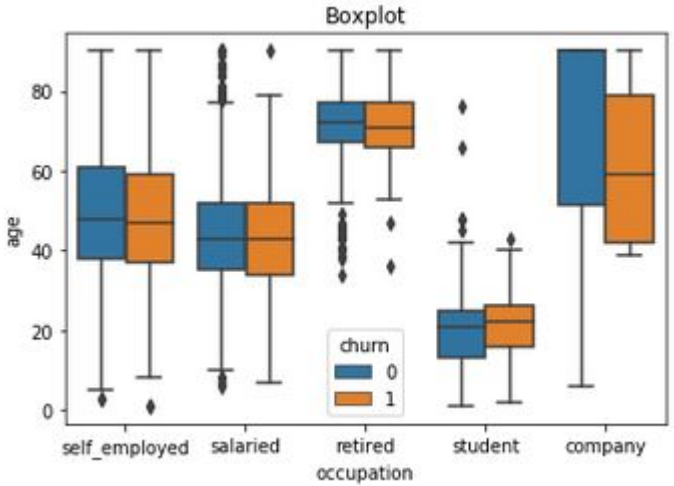
Ex: What is the distribution of age and occupation for churning customer ?

Grouped Boxplot

We can visualize three features at once by considering Boxplot and introducing the notion of color or hue to separate out values in a categorical dimension.

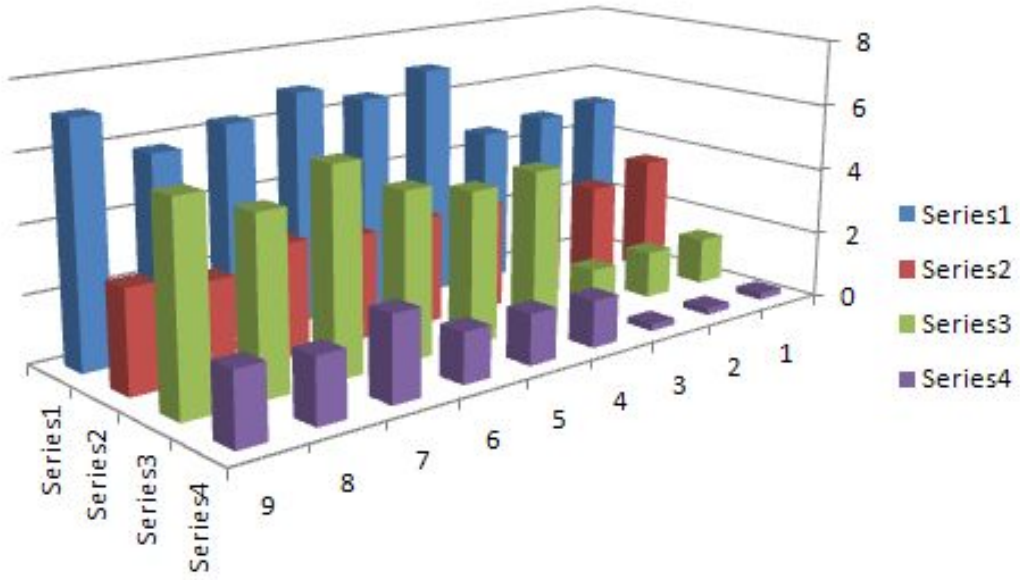
One continuous and two categorical feature

Ex: What is the distribution of age and occupation for churning customer ?

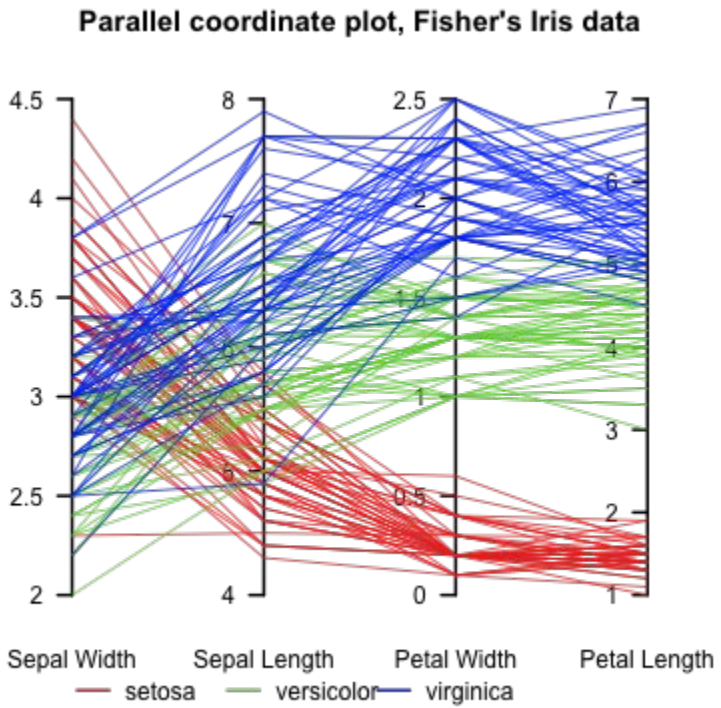


Analytics Vidhya
Learn everything about analytics

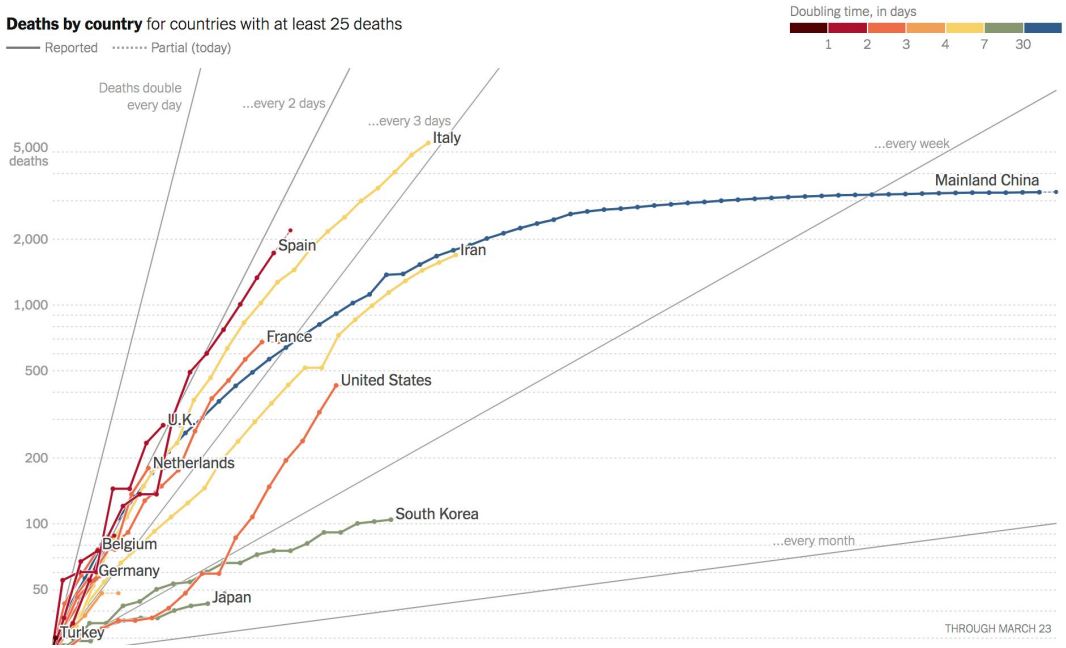
Other Multivariate Plots



Other Multivariate Plots



Other Multivariate Plots



Thanks