

Visualizing Many Variables



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Overview



Visualizing Many Variables

Demo (Base)

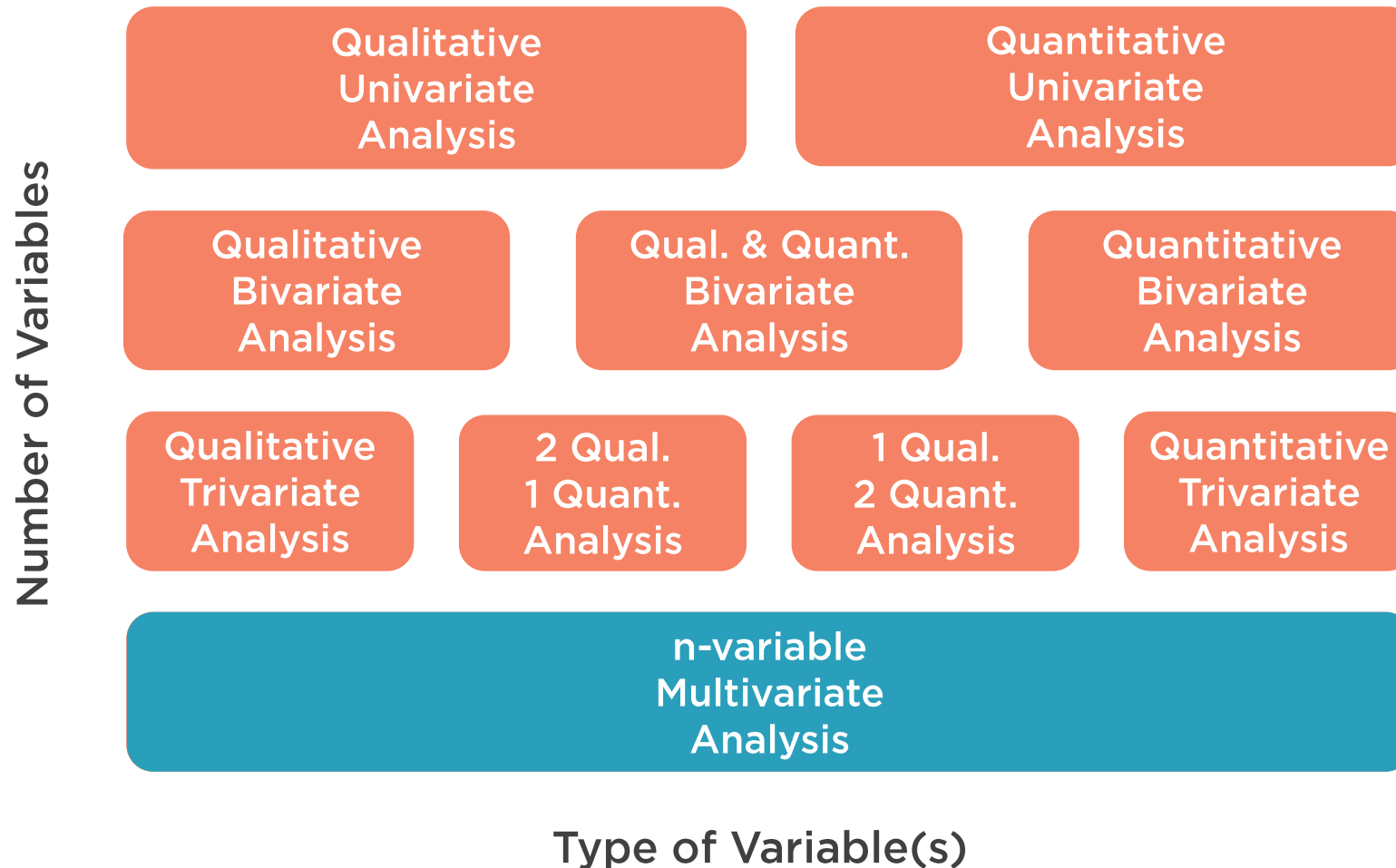
Demo (Lattice)

Demo (ggplot2)

Course Summary



Types of Data Analysis



Multivariate Analysis

Arbitrary number of variables

Reserved term in statistics

Relationships

Patterns

Movie Correlation Matrix				
	Year	Runtime	Critic Score	Box Office
Year	1.00	-0.38	0.04	-0.01
Runtime	-0.38	1.00	0.19	0.35
Critic Score	0.04	0.19	1.00	0.16
Box Office	-0.01	0.35	0.16	1.00



Multivariate Analysis

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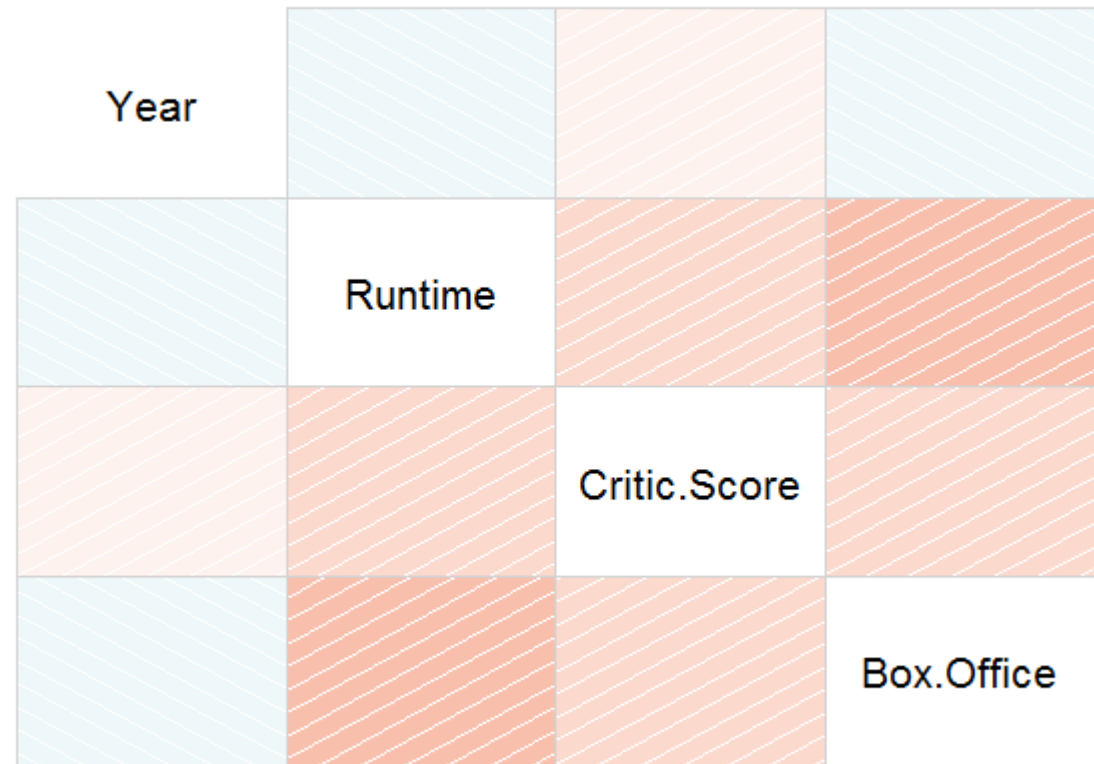


Correlogram

Visual correlation matrix

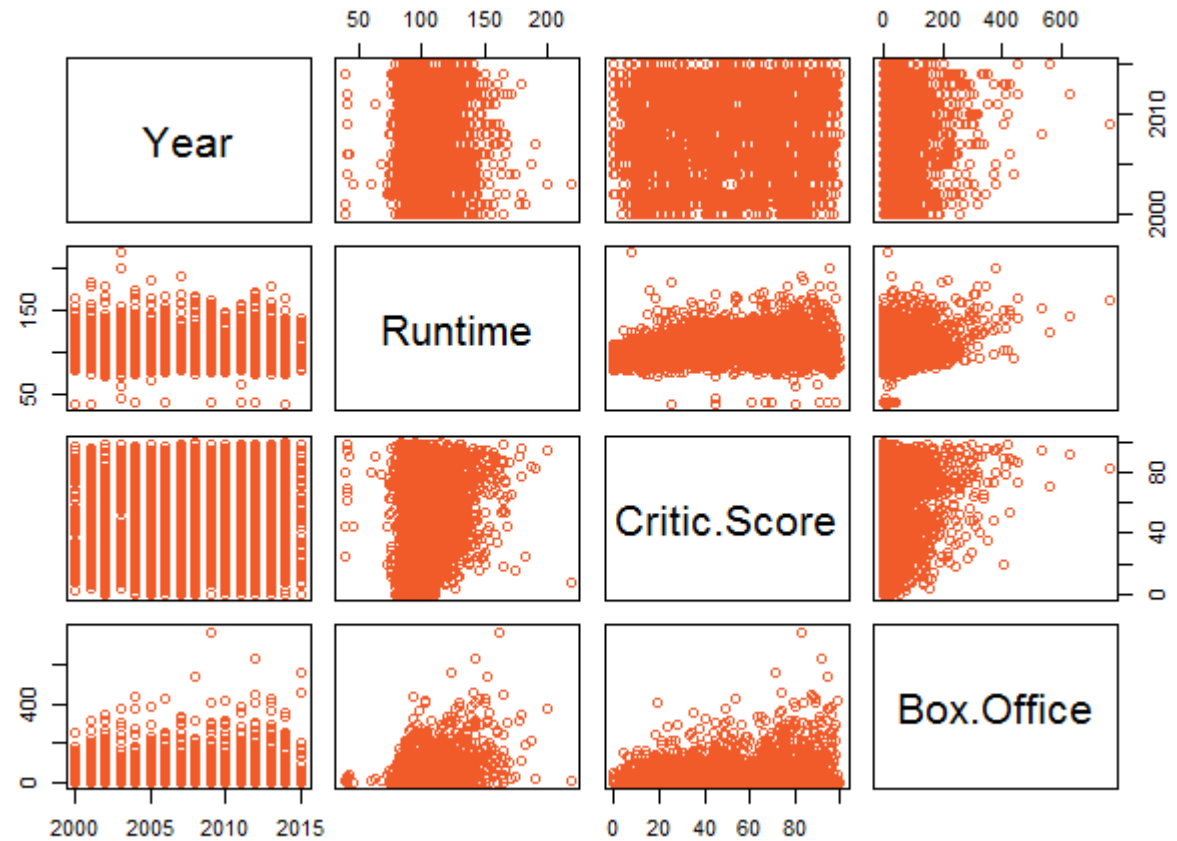
Columns and rows

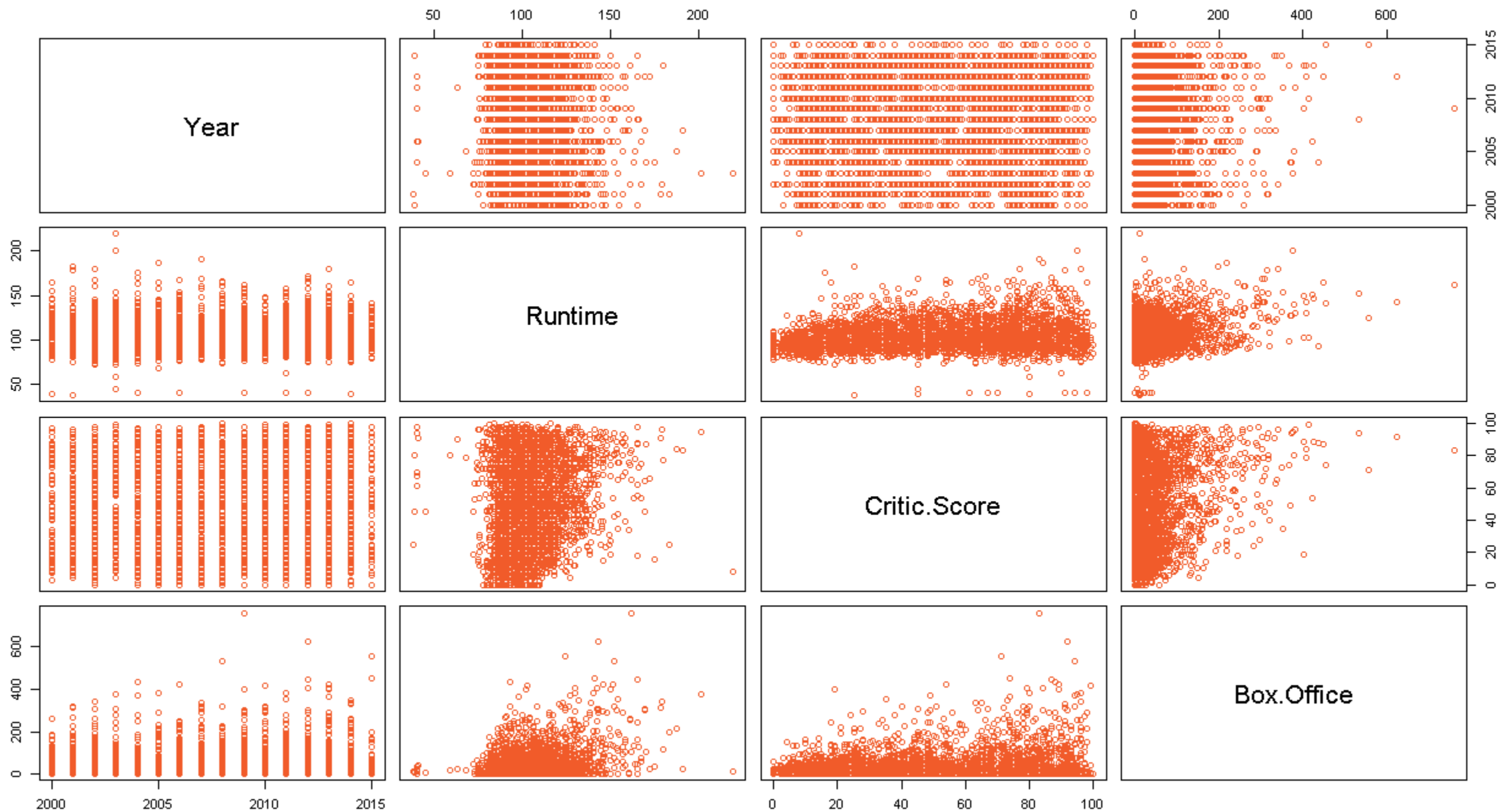
Divergent color palette



Scatterplot Matrix

Matrix of scatterplots
Columns and rows



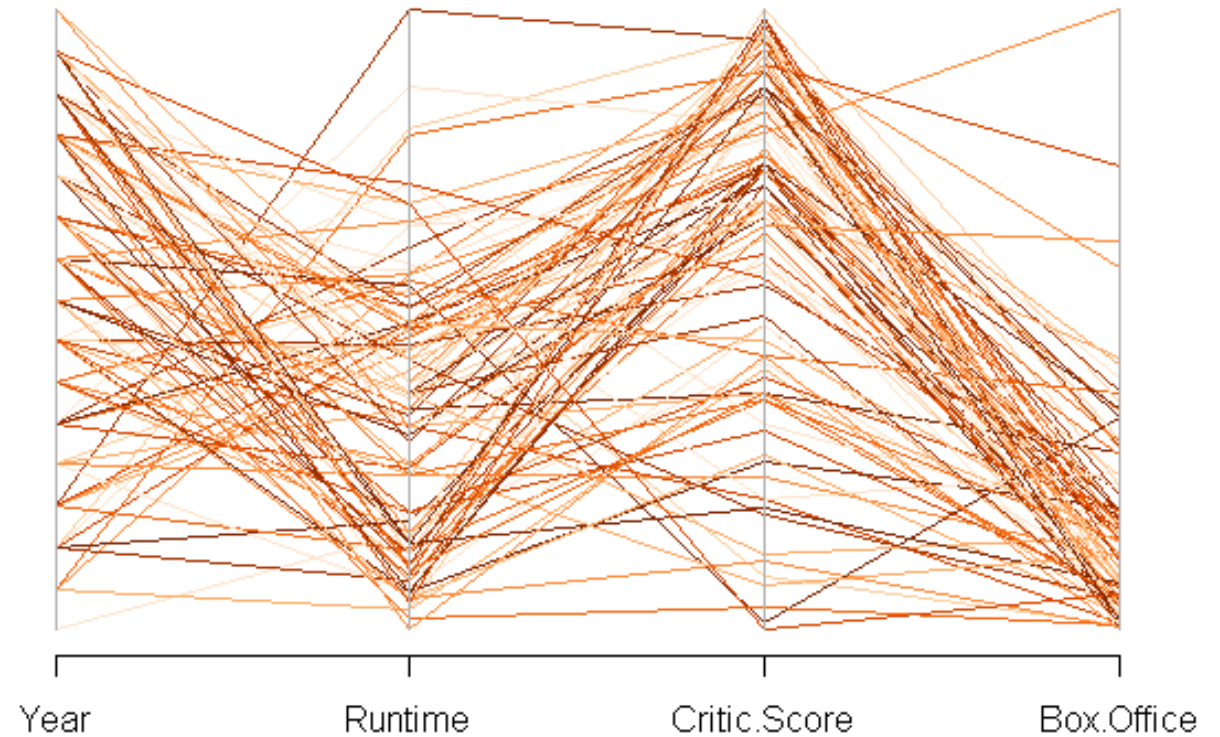


Parallel Coordinates Plot

Line chart

Variables on x-axis

Scaled values on y-axis





1. Are there correlations?
2. Are there any patterns?



Create Correlation Matrix



Create Correlogram



Create Scatterplot Matrix



Load Top 100 Movies



Create Parallel Coordinates Plot



Create Correlogram



Create a Scatterplot Matrix



Create a Parallel Coordinates Plot



Melt Correlation Matrix



Create a Correlogram



Create a Scatterplot Matrix

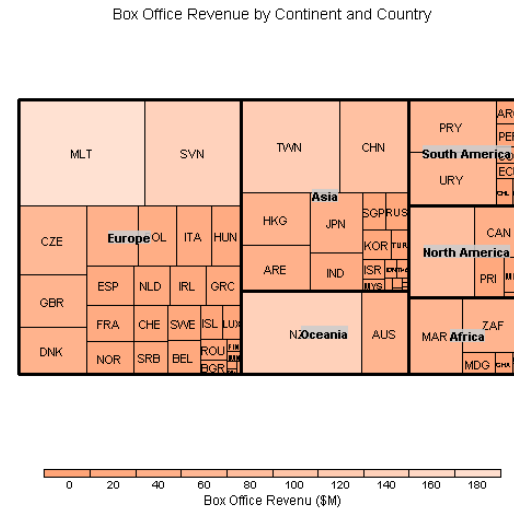
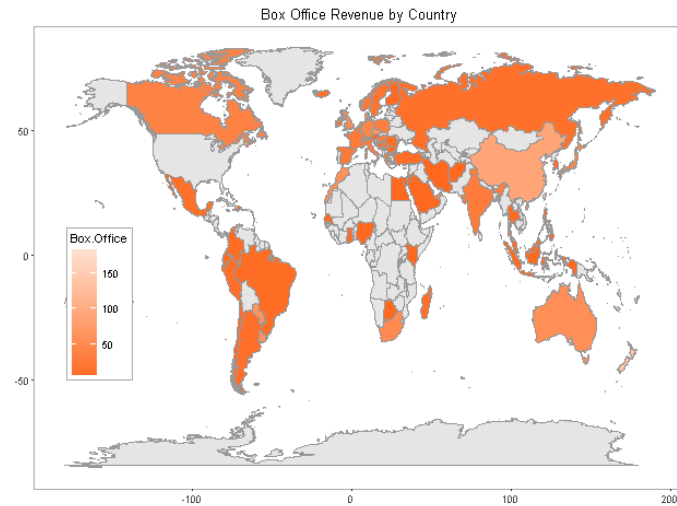


Create Parallel Coordinates

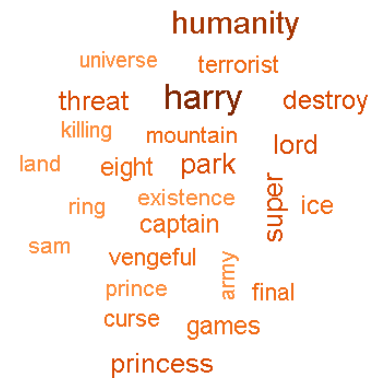
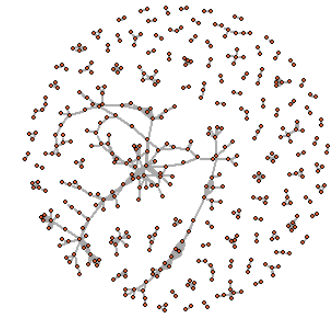




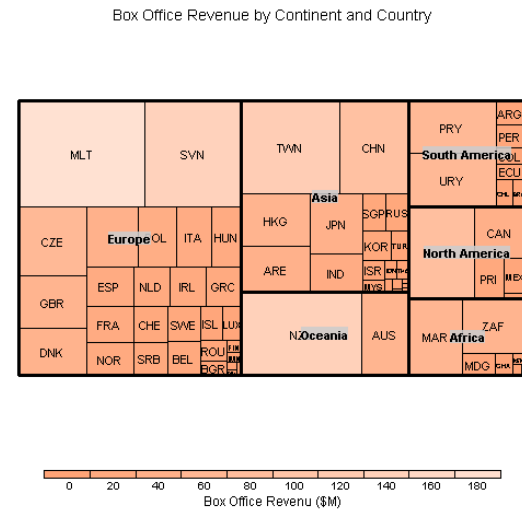
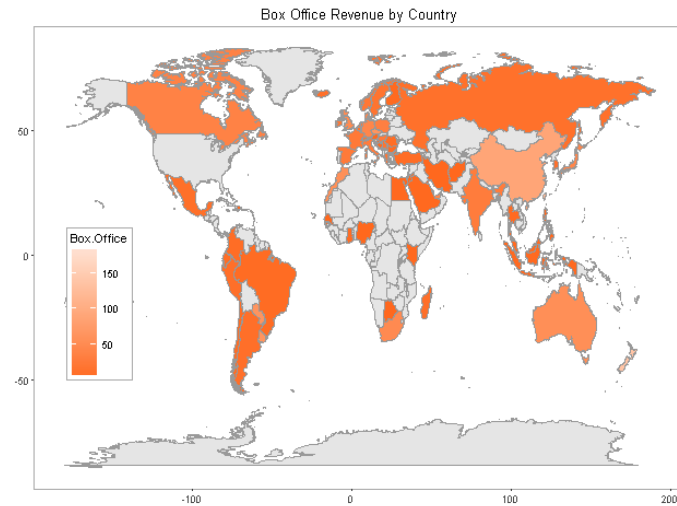
Mastering Data Visualization with R



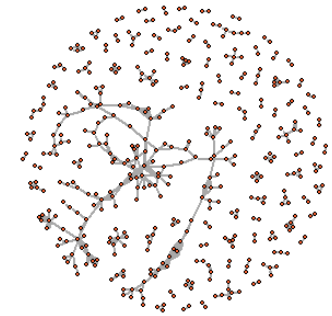
Twice or More Acting Pairs



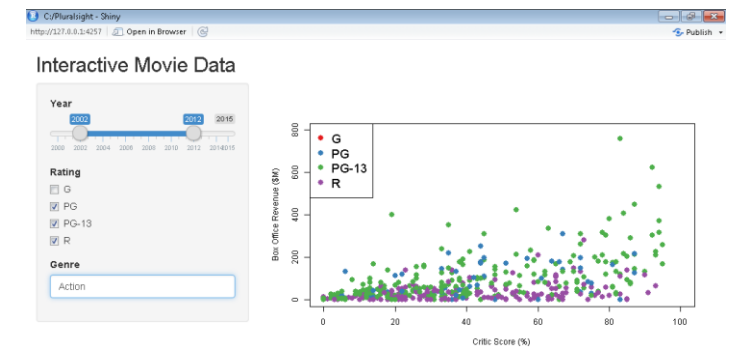
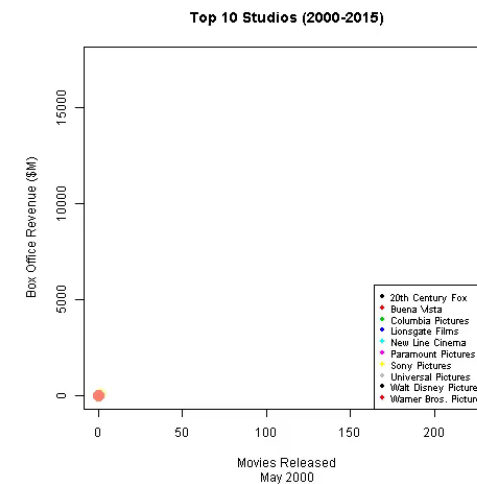
Mastering Data Visualization with R



Twice or More Acting Pairs



humanity
universe terrorist
threat harry destroy
killing mountain lord
land eight park
ring existence super ice
sam vengeful army
prince final
curse games
princess



Feedback

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Course Summary



Introduction

Visualizing Three Categorical Variables

Visualizing Two Categorical
and One Numeric Variables

Visualizing One Categorical
and Two Numeric Variables

Visualizing Three Numeric Variables

Visualizing Many Variables



Special Thanks

Anne Herlache

Katy Carpenter



Thank You!

