Results

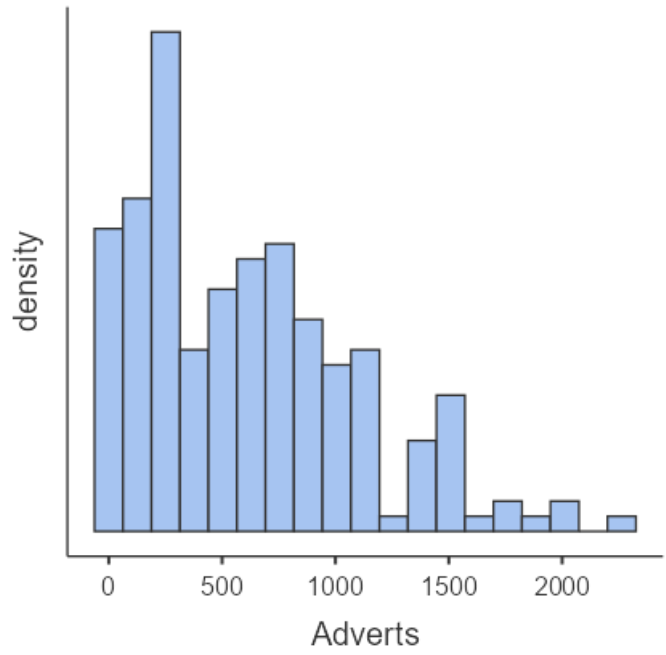
Descriptives

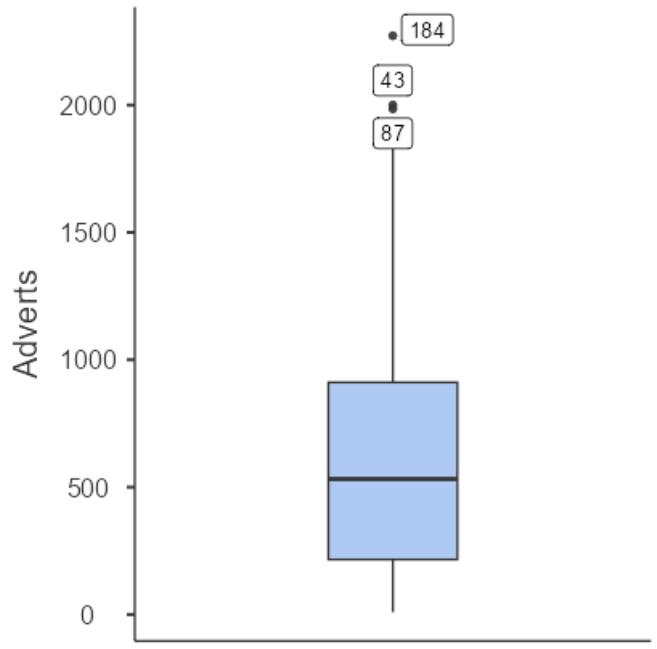
Descriptives

	Adverts	Sales	Airplay	Image
N	200	200	200	200
Missing	0	0	0	0
Mean	614	193	27.5	6.77
Median	532	200	28.0	7.00
Standard deviation	486	80.7	12.3	1.40
Minimum	9.10	10.0	0.00	1.00
Maximum	2272	360	63.0	10.0
Skewness	0.853	0.0439	0.0597	-1.29
Std. error skewness	0.172	0.172	0.172	0.172
Kurtosis	0.236	-0.680	-0.0342	3.74
Std. error kurtosis	0.342	0.342	0.342	0.342
Shapiro-Wilk W	0.925	0.985	0.993	0.877
Shapiro-Wilk p	<.001	0.030	0.408	<.001

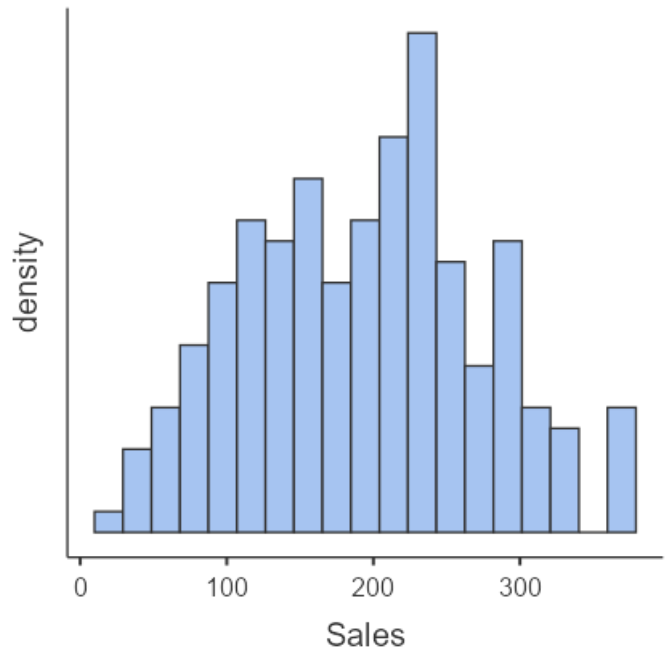
Plots

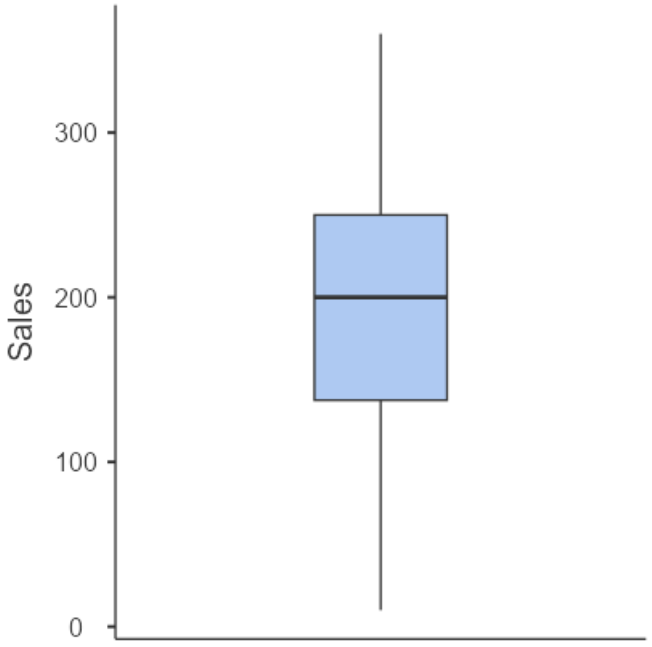
Adverts



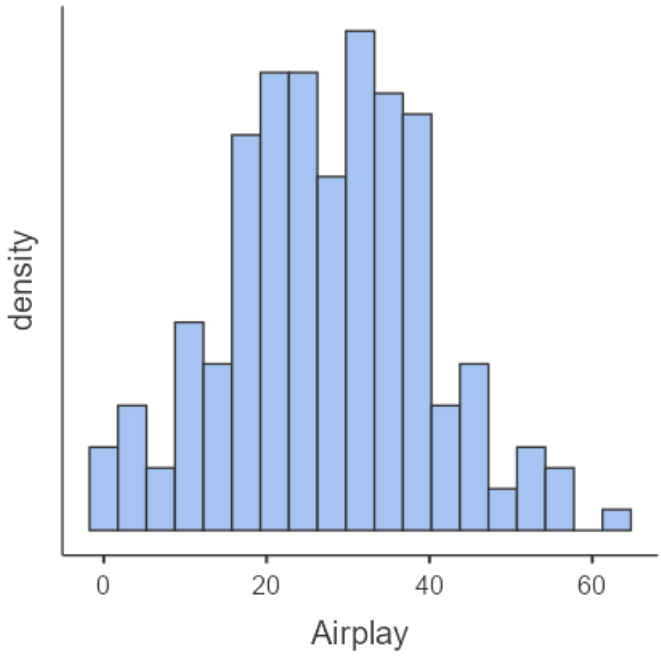

184
43
87
2000
1500
1000
500
0
Adverts

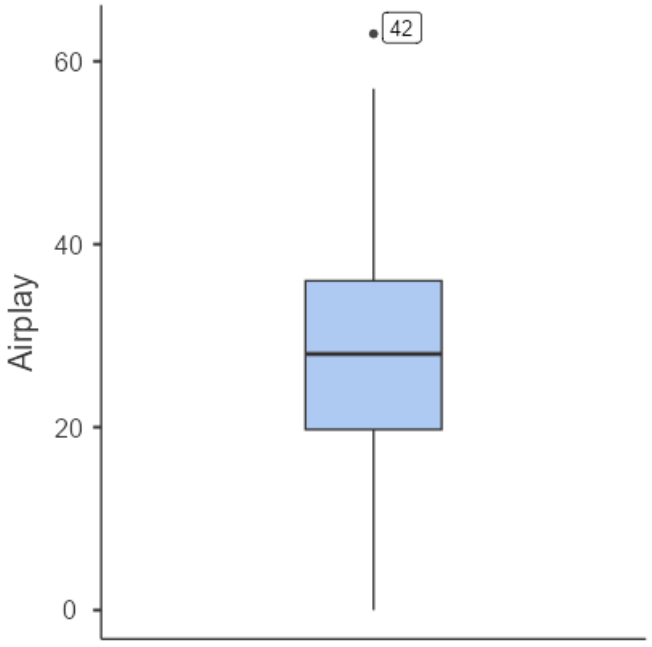
Sales


density
0
100
200
300
Sales

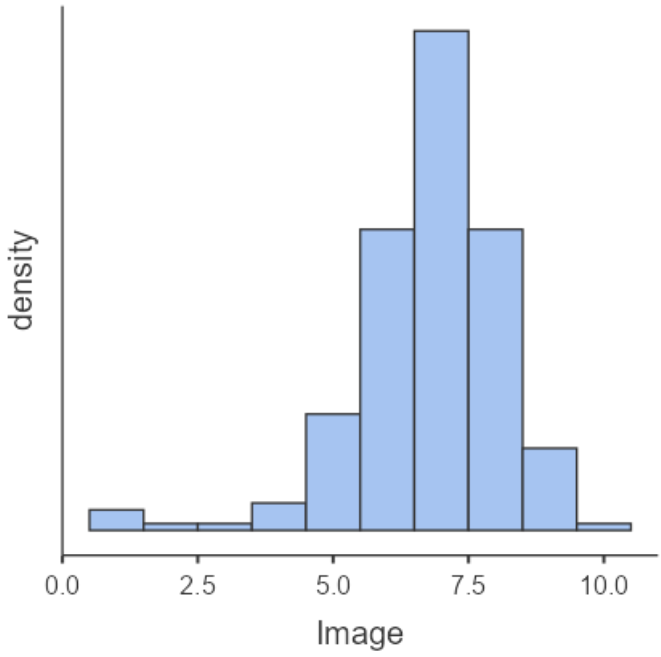


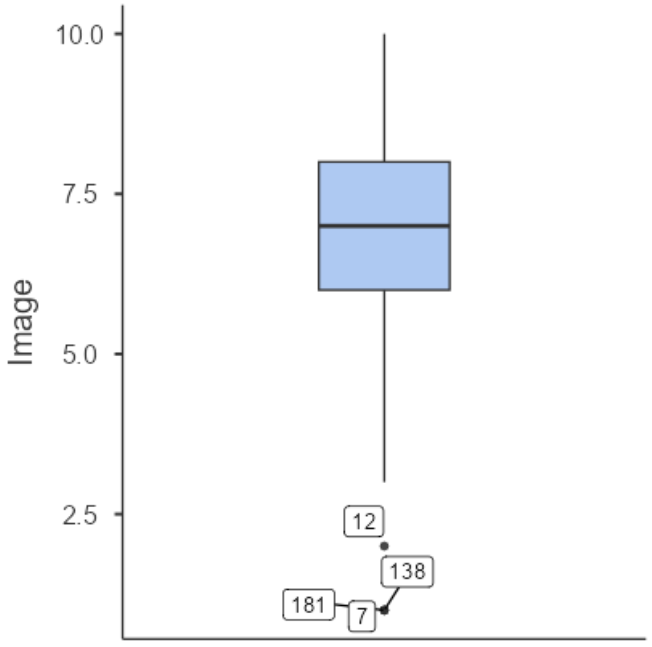
Airplay





Image





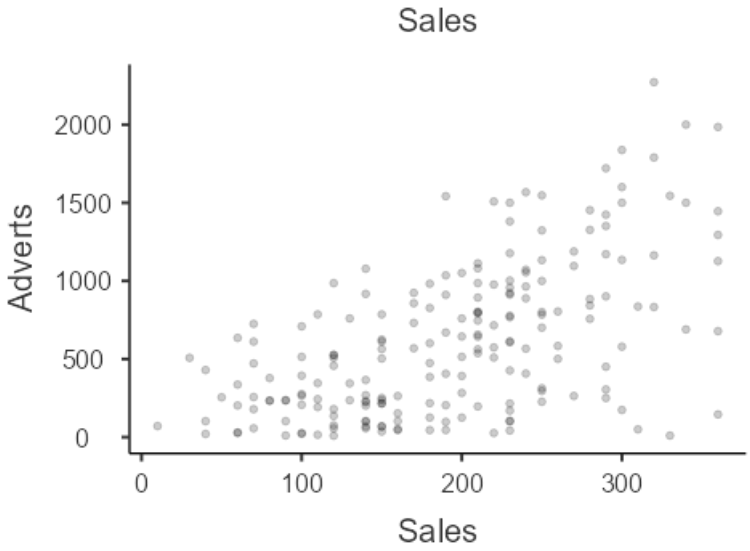
Relationships, Prediction, and Group Comparisons

You have entered a numeric variable for Variable 1 / Dependent Variable and a numeric variable for Variable 2 / Independent Variables. Hence, the Pearson correlation coefficient, which is a measure for the strength of the linear relationship between two variables, seems to be a good option for you! In order to run this analysis in jamovi, go to: Regression > Correlation Matrix

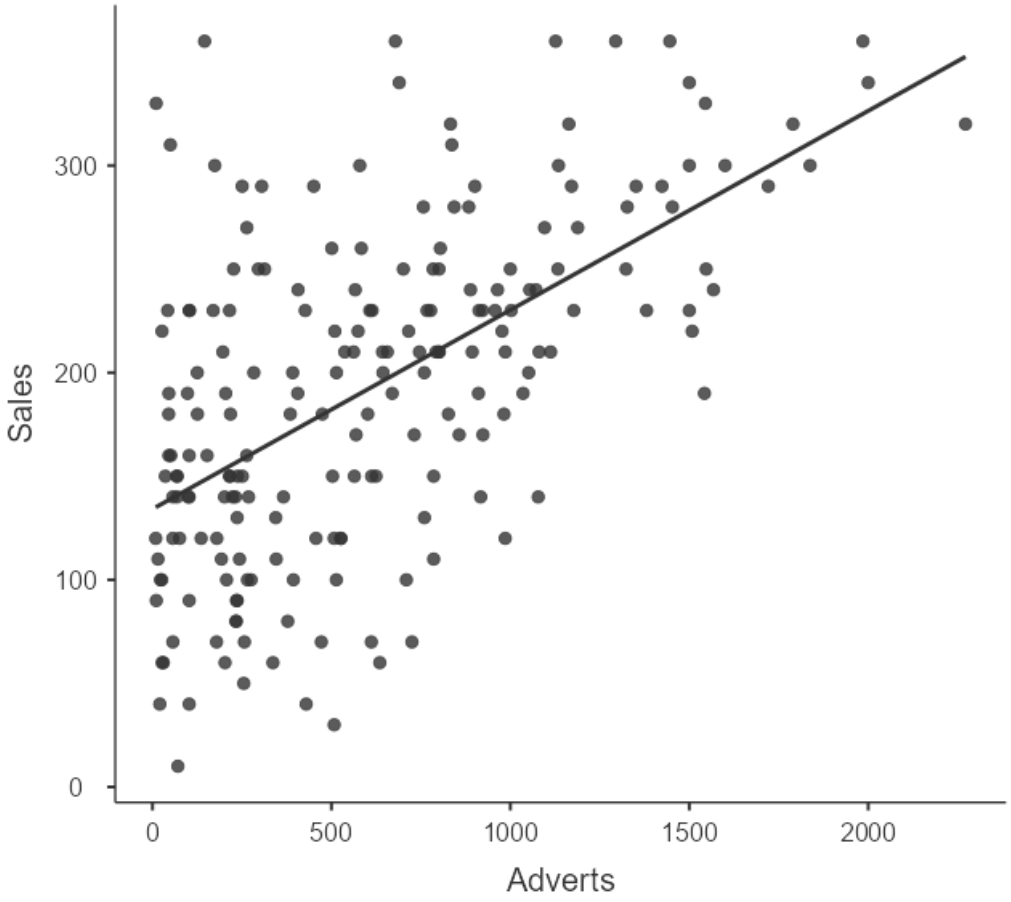
- Drop your two variables in the white box at the right
- Under Correlation Coefficients, select Pearson (selected by default)
- Under Hypothesis, select your alternative hypothesis

Alternatively, you could perform a linear regression analysis. The test outcomes of both methods will be equivalent. Click on the links to learn more about these methods!

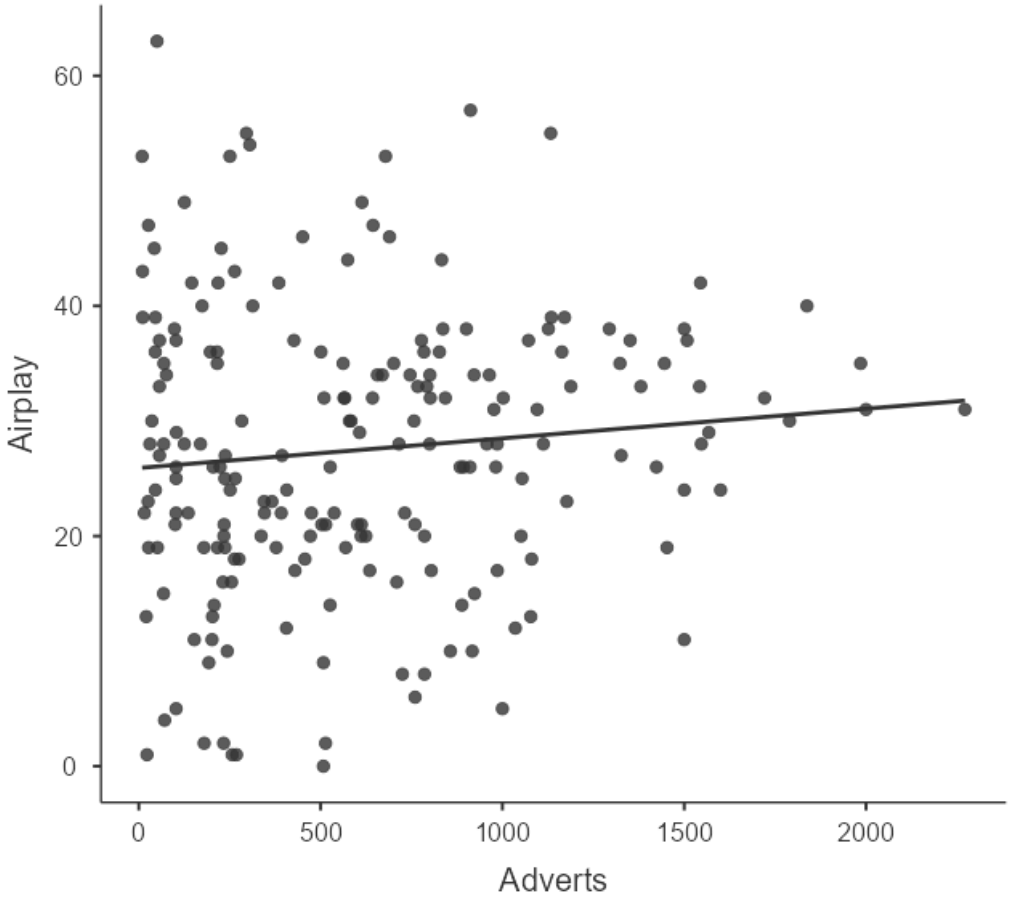
Scatter Plots of Bivariate Relationships - Dependent/Independent Variables



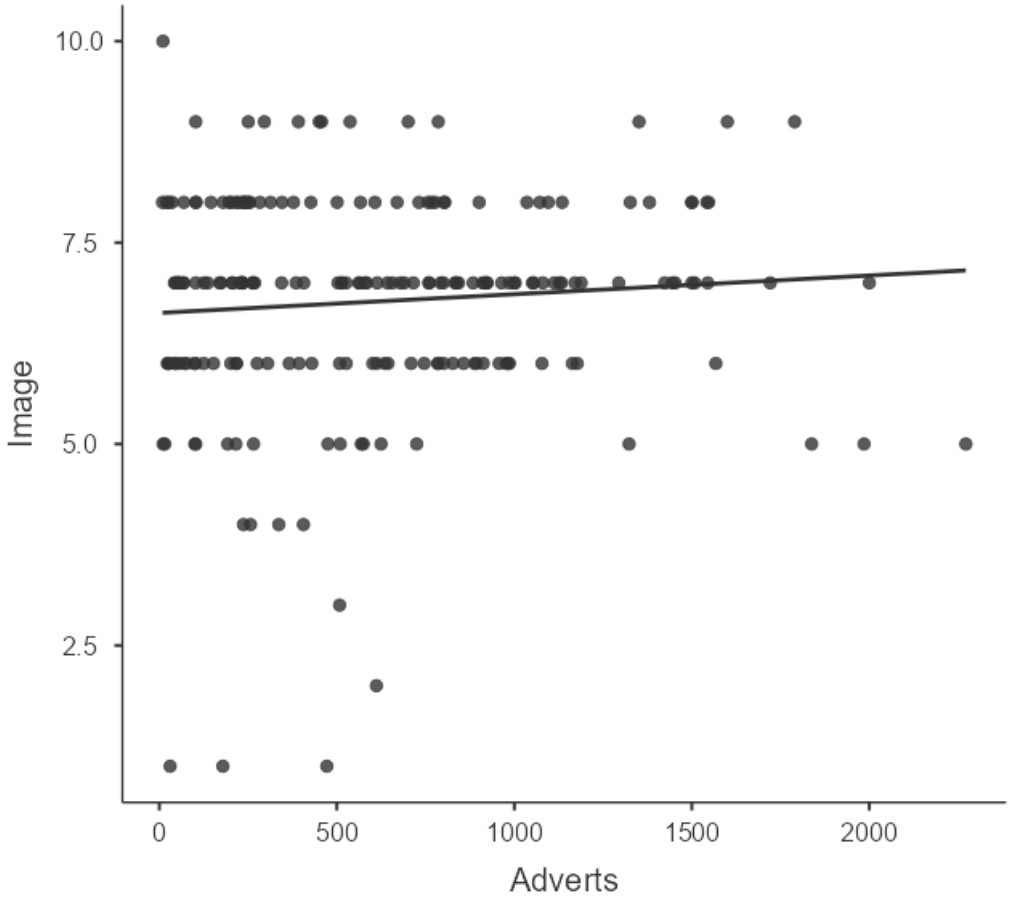
Scatterplot



Scatterplot



Scatterplot



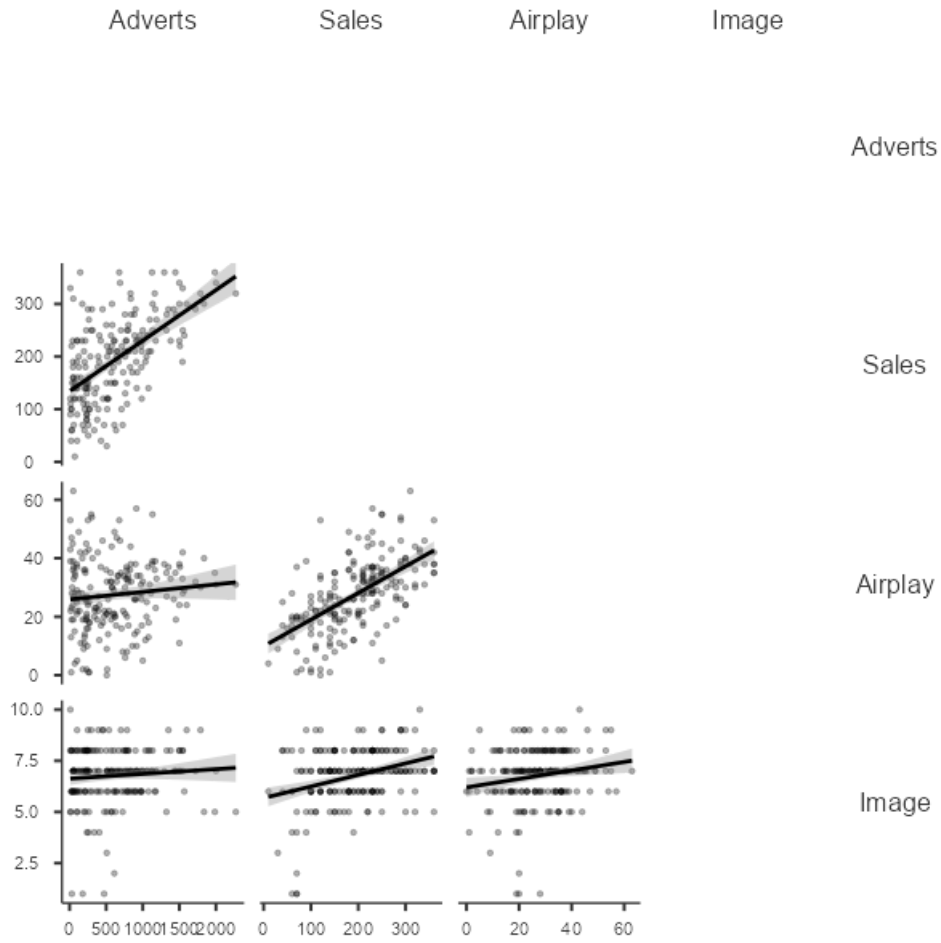
Correlation Matrix

Correlation Matrix

		Adverts	Sales	Airplay	Image
Adverts	**Pearson's r**	—			
	df	—			
	p-value	—			
Sales	**Pearson's r**	0.578***	—		
	df	198	—		
	p-value	<.001	—		
Airplay	**Pearson's r**	0.102	0.599***	—	
	df	198	198	—	
	p-value	0.151	<.001	—	
Image	**Pearson's r**	0.081	0.326***	0.182**	—
	df	198	198	198	—
	p-value	0.256	<.001	0.010	—

Note. * p < .05, ** p < .01, *** p < .001

Plot



Linear Regression

Model Fit Measures

				Overall Model Test			
Model	**R**	**R^2**	**Adjusted R^2**	**F**	**df1**	**df2**	**p**
1	0.578	0.335	0.331	99.6	1	198	<.001

Note. Models estimated using sample size of N=200

Omnibus ANOVA Test

	Sum of Squares	**df**	**Mean Square**	**F**	**p**
Adverts	433688	1	433688	99.6	<.001
Residuals	862264	198	4355		

Note. Type 3 sum of squares

[3]

Model Coefficients - Sales

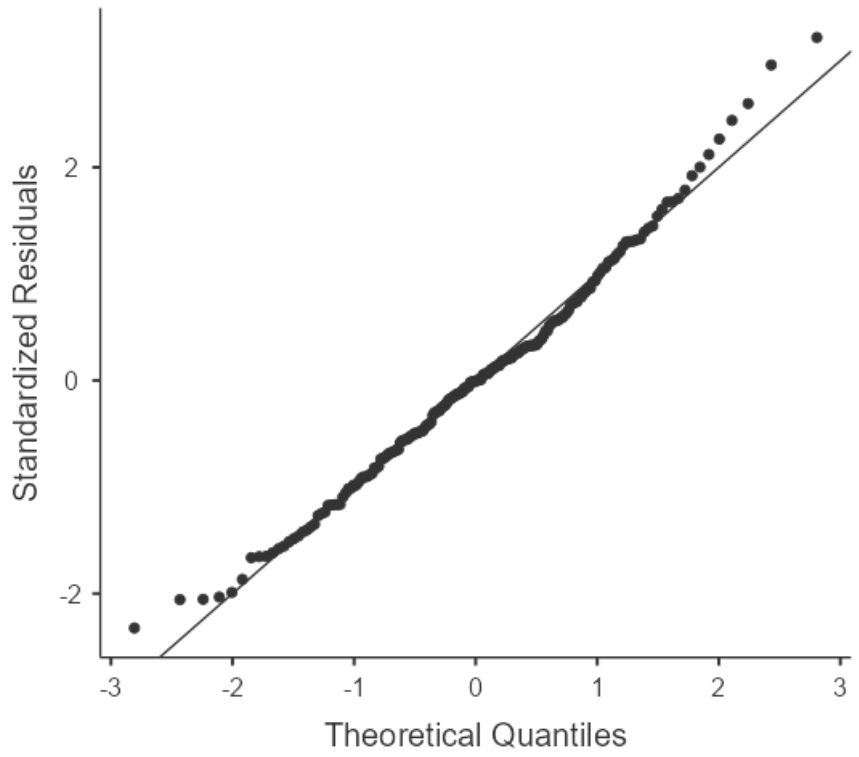
			95% Confidence Interval				
Predictor	**Estimate**	**SE**	**Lower**	**Upper**	**t**	**p**	**Stand. Estimate**
Intercept	134.1399	7.53657	119.2777	149.002	17.80	<.001	
Adverts	0.0961	0.00963	0.0771	0.115	9.98	<.001	0.578

Assumption Checks

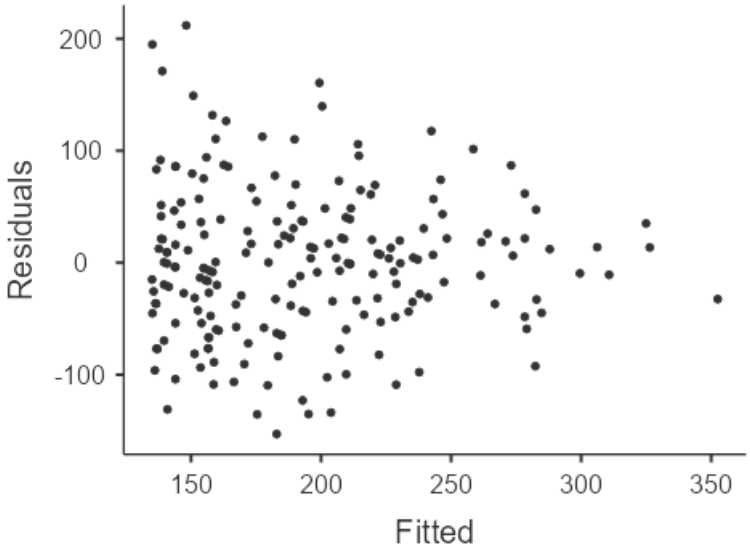
Normality Test (Shapiro-Wilk)

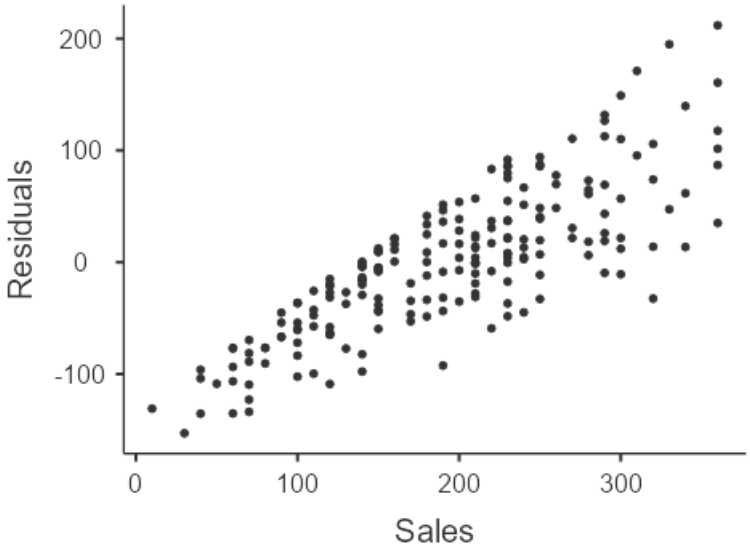
Statistic	**p**
0.990	0.176

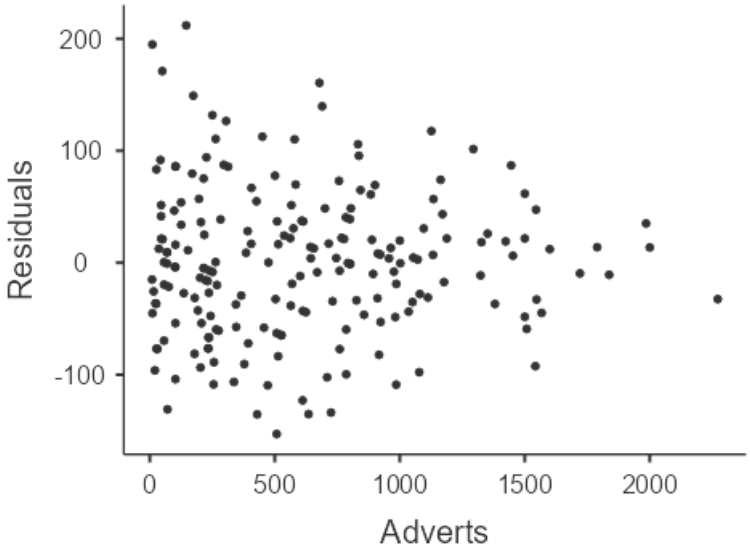
Q-Q Plot



Residuals Plots


Residuals
200
100
0
-100
150
200
250
300
350
Fitted


Residuals
200
100
0
-100
0
100
200
300
Sales


Residuals
200
100
0
-100
0
500
1000
1500
2000
Adverts

References

[1] The jamovi project (2024). *jamovi*. (Version 2.6) [Computer Software]. Retrieved from https://www.jamovi.org.

[2] R Core Team (2024). *R: A Language and environment for statistical computing*. (Version 4.4) [Computer software]. Retrieved from https://cran.r-project.org. (R packages retrieved from CRAN snapshot 2024-08-07).

[3] Fox, J., & Weisberg, S. (2023). *car: Companion to Applied Regression*. [R package]. Retrieved from https://cran.r-project.org/package=car.